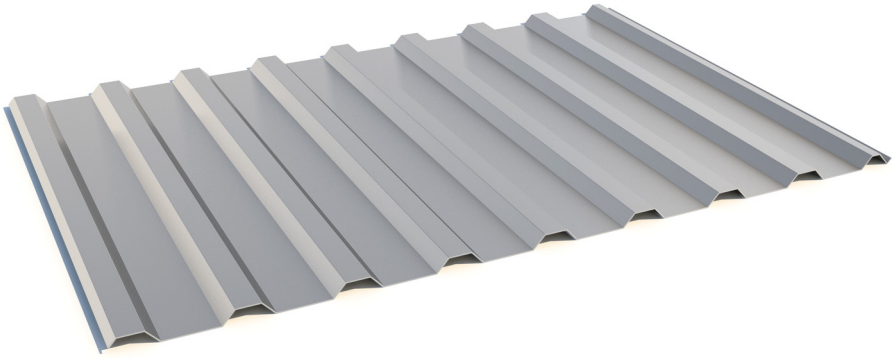
BLACHOTRAPEZ®

Trapezoidal metal sheet
T-20 plus



Product
data sheet

scan the QR code
and see a 3D model

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General information

Trapezoidal metal sheet is unique thanks to its simplicity and expressive form. It allows making effective structures which often differ from the traditional division on a roof and a façade.

Advantages and properties

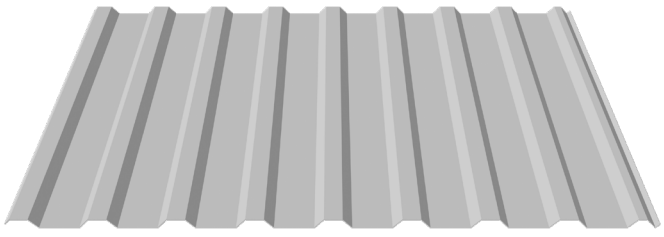
A wide range of sheet thickness, possibility to cut to size and rich colours create unlimited possibilities of its application. An important advantage of trapezoidal sheet is its rigidity and durability determined by profile height. For small and medium-sized buildings we recommend trapezoidal sheets with the following profiles: T8, T14 plus, T18, T18 plus, T20 plus, T35 plus, T50, T55. T50 and T55 sheets are used for large service facilities, e.g. production halls.

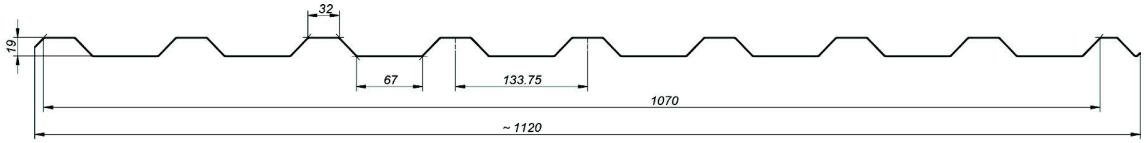
Technical details

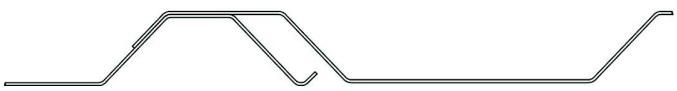
Total width:	**~1120 mm**	Pitch:	**133,75 mm**
Cover width:	**1070 mm**	Width of crown:	**32 mm**
Thickness of the finished product (steel):	**0,5-0,75 mm**	Width of valley:	**67mm**
Thickness of the finished product (aluminium):	**0,6 mm**	Recommended length:	**max 12 mb ***
Depth of profile:	**19 mm**		

* Blachotrapez is not responsible for mechanical damage caused during transport in sheets longer than the ones recommended in the Technical Specifications of the Profile. Ordering sheets longer than recommended increases the risk of damage during transport, processing and assembly. Sheets longer than recommended may be deformed. This is due to the production technology and the expansion of the material under the influence of temperature amplitude.

T-20 plus Roof - Dimensions and welt, Cross-section







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Application

Self-supporting T-20 plus trapezoidal sheets are delivered in the form of ready-made elements, and are used for roof covering with a slope of not less than 9°. For Colorcoat HPS200Ultra® the minimum roof slope is 6°. These sheets are used as finishing and safety elements in buildings. Trapezoidal sheets must be used in accordance with technical projects of buildings, the manufacturer's installation instructions and recommendations, current standards, and technical and construction regulations.

Remove the anti-condensation barrier at the joints between the sheets and butting up to the eaves by cutting, so that water and moisture from the outside is not absorbed into the layer of material.

When forming trapezoidal sheets (especially with non-woven interlinings), transverse bending of U-shaped sheets can occur, for technical and technological reasons. In this event, it is necessary to use additional 19mm-long screws (to join the sheets together), in order to lay the sheets along longitudinal overlaps. This is a natural occurrence for which the Manufacturer is not responsible.

Blachotrapez recommends to purchase all materials required for one investment under one purchase order. Otherwise it is possible that the colour shades and texture will vary which shall not be attributable to the Manufacturer.

The applied material has a wide range of applications due to the environmental classification, which is confirmed by a long warranty period depending on material (see the separate warranty form uploaded to our website www.blachotrapez.eu)

Research results / documentation

All of our products have a Declaration of Performance made on the basis of Standards and Regulations related to construction products in force. We also have Hygienic Certificate No. B-BK-60211-1315/19 issued in 2020 by the National Institute of Hygiene (PZH).

These documents are issued to implemented orders. In order to obtain them, please contact the Quality Control Department - the scheme of procedures is provided on our website.

Furthermore, all our trapezoidal products undergo tests of resistance to concentrated loads carried out in a foreign accredited laboratory in Kosice. These tests are made for each profile and for each sheet thickness for the roof and façade sides (negative and positive).

Moreover, in 2017 we refreshed the results of load tables for all trapezoidal profiles, starting from the lowest T8 and ending at T55 (load tables and descriptions are given later in this Product Data Sheet).

Additional information

For all types of profiles we have properly prepared instructions for transport, storage, cutting and maintenance of sheet metal. To familiarize yourself with the content, please visit www.blachotrapez.eu and contact our Technical and Trade Consultants or branches of our company - addresses can also be found on our website.

We also have numerous awards and certificates for both our raw materials and ready-made products, which you can read on our website www.blachotrapez.eu

Load tables

Guidelines and comments on the load tables for profiled metal sheets. The load tables have been developed to be applied with the trapezoidal metal sheets produces by "BLACHOTRAPEZ" Company, which serve as single-span and continuous-span (two-span and three-span) beams. Alternative supports such as CLADDING (positive) or ROOFING (negative) have also been taken into account.

The results have been obtained on the basis of a static strength analysis of metal sheets, treated as thin-walled components, according to the algorithm developed by R.J. Garncarek, DSc, PhD, Eng, a professor of Bialystok University of Technology, in compliance with PN-EN 1993-1-3: August 2008 with further amendments, as well as PN-EN 1993-1-1and 1993-1-5.

Programmes by "KOTEX" Company [www.kotex.waw.pl] were used for calculations.
According to PN-EN 1993-1-3, the following assumptions were adopted for the calculations:

- resilient material with the yield point $\mathbf{f}_{yb}$ according to Table 3.1b.
- working coefficient for material γ_m = 1,0.

The tables contain the design loads for the ultimate limit state (ULS), expressing the permissible load bearing capacity, as well as characteristic loads for serviceability limit state (SLS), which correspond to the permissible deflections.

The permissible loads for the SLS were determined for the **L**/150, **L**/200 and **L**/300 deflections.
According the standard, the value of 10 mm was adopted as the support width at the end support and at least 60 mm as the support width at the intermediate supports.

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The following units were used in the tables:

- Sheet thickness mm
- Cross section area (gross) cm^2/m
- Moments of inertia (effective, min/max) cm^4/m
- Span spreads m
- Loads kN/m^2

Table 1 provides the ranges for the basic parameters for the metal sheets that have been analysed. The abbreviations R and F used in Table 1 stand for Roof and Façade respectively.
Table 1

Profile	Schemes	Thickness [mm]					L min	L max
		0.50	0.70	0.75	0.88	1.00	[m]	[m]
T-8	F	x					0.50	3.00
T-14+	R	x					0.50	3.00
T-18	R,F	x	x	x			0.50	3.00
T-18+	R,F	x	x	x			0.50	3.00
T-20+	R	x	x	x			0.50	4.00
T-35	R,F	x	x	x			1.00	5.00
T-35+	R,F	x	x	x			1.00	5.00
T-50	R,F	x	x	x	x	x	1.50	6.00
T-55	R,F	x	x	x	x	x	1.50	6.00

All the tables were developed for the S250, S280 and S320 steels. The span spreads values given in tables are changed every 0,25 m.

General recommendations

The design loads presented above shall be compared with the values contained in the tables – line 1, for a span length no shorter than the one adopted when designing the construction.

Linear interpolation can be used for the span spread **L**.

These tables can be used when the following conditions are met:
- the load on the adopted static schemes is a continuous uniformly distributed load
- the difference between the span lengths in multi-span schemes do not exceed 5%, in which case the longest span spread shall be adopted to determine ULS and SLS.
- the trapezoid profiles fastening method is compliant with the producer's manual.

In individual cases and depending on the nature of the problem, it is recommended to consult the producer's representative or the tables' authors.

T-20 PLUS ROOF																		
S 250 GD				**single-span beam**														
Thickness	**Agross**	**Mass**	**Jx min/max**	**Limit state**	**Acceptable continuous load q [kN/m2] evenly distributed over span L [m]**													
[mm]	[cm2/m]	[kg/m2]	[cm4/m]		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
0,50	5,61	4,40	3,19 3,62	SGN	17,23	7,67	4,32	2,76	1,92	1,41	1,08	0,85	0,69	0,57	0,48	0,41	0,35	0,31	0,27
				SGU L/150	17,23	7,67	3,36	1,76	1,04	0,66	0,45	0,32	0,23	0,18	0,14	0,11	0,09	0,07	0,06
				SGU L/200	17,23	5,97	2,60	1,36	0,80	0,51	0,34	0,24	0,18	0,13	0,10	0,08	0,07	0,05	0,04
				SGU L/300	13,37	4,15	1,80	0,93	0,55	0,35	0,23	0,17	0,12	0,09	0,07	0,06	0,04	0,04	0,03
0,70	7,85	6,16	4,83 5,07	SGN	29,32	13,05	7,34	4,70	3,26	2,40	1,84	1,45	1,18	0,97	0,82	0,70	0,60	0,52	0,46
				SGU L/150	29,32	12,05	5,23	2,72	1,57	0,99	0,67	0,47	0,34	0,26	0,20	0,16	0,12	0,10	0,08
				SGU L/200	29,32	9,29	3,98	2,04	1,18	0,74	0,50	0,35	0,26	0,19	0,15	0,12	0,09	0,08	0,06
				SGU L/300	20,78	6,28	2,65	1,36	0,79	0,50	0,33	0,23	0,17	0,13	0,10	0,08	0,06	0,05	0,04
0,75	8,41	6,60	5,28 5,43	SGN	32,62	14,52	8,17	5,23	3,63	2,67	2,04	1,61	1,31	1,08	0,91	0,77	0,67	0,58	0,51
				SGU L/150	32,62	13,18	5,69	2,91	1,69	1,06	0,71	0,50	0,36	0,27	0,21	0,17	0,13	0,11	0,09
				SGU L/200	32,62	10,09	4,26	2,19	1,27	0,80	0,53	0,38	0,27	0,21	0,16	0,12	0,10	0,08	0,07
				SGU L/300	22,57	6,73	2,84	1,46	0,84	0,53	0,36	0,25	0,18	0,14	0,11	0,08	0,07	0,05	0,04

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T-20 PLUS ROOF																		
S 250 GD				double-span beam														
Thickness	Agross	Mass	Jx min/max	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]													
[mm]	[cm2/m]	[kg/m2]	[cm4/m]		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
0,50	5,61	4,40	3,19 3,62	SGN	10,72	5,67	3,55	2,36	1,69	1,27	0,99	0,80	0,65	0,55	0,47	0,40	0,35	0,30	0,27
				SGU L/150	10,72	5,67	3,55	2,36	1,69	1,27	0,99	0,76	0,56	0,43	0,33	0,26	0,21	0,17	0,14
				SGU L/200	10,72	5,67	3,55	2,36	1,69	1,21	0,83	0,59	0,43	0,33	0,25	0,20	0,16	0,13	0,11
				SGU L/300	10,72	5,67	3,55	2,23	1,32	0,84	0,57	0,40	0,29	0,22	0,17	0,13	0,11	0,09	0,07
0,70	7,85	6,16	4,83 5,07	SGN	18,66	9,93	6,21	4,15	2,97	2,24	1,75	1,41	1,17	0,97	0,82	0,70	0,60	0,53	0,46
				SGU L/150	18,66	9,93	6,21	4,15	2,97	2,24	1,60	1,12	0,82	0,62	0,47	0,37	0,30	0,24	0,20
				SGU L/200	18,66	9,93	6,21	4,15	2,84	1,79	1,20	0,84	0,61	0,46	0,36	0,28	0,22	0,18	0,15
				SGU L/300	18,66	9,93	6,21	3,27	1,89	1,19	0,80	0,56	0,41	0,31	0,24	0,19	0,15	0,12	0,10
0,75	8,41	6,60	5,28 5,43	SGN	20,92	11,15	6,97	4,66	3,34	2,52	1,98	1,57	1,28	1,06	0,89	0,76	0,66	0,57	0,50
				SGU L/150	20,92	11,15	6,97	4,66	3,34	2,52	1,71	1,20	0,88	0,66	0,51	0,40	0,32	0,26	0,21
				SGU L/200	20,92	11,15	6,97	4,66	3,04	1,92	1,28	0,90	0,66	0,49	0,38	0,30	0,24	0,20	0,16
				SGU L/300	20,92	11,15	6,82	3,50	2,03	1,28	0,86	0,60	0,44	0,33	0,25	0,20	0,16	0,13	0,11

T-20 PLUS ROOF																		
S 250 GD				three-span beam														
Thickness	Agross	Mass	Jx min/max	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]													
[mm]	[cm2/m]	[kg/m2]	[cm4/m]		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
0,50	5,61	4,40	3,19 3,62	SGN	12,91	6,87	4,31	2,93	2,10	1,58	1,23	0,99	0,81	0,68	0,58	0,50	0,44	0,38	0,33
				SGU L/150	12,91	6,87	4,31	2,93	1,92	1,23	0,84	0,60	0,44	0,33	0,26	0,21	0,17	0,13	0,11
				SGU L/200	12,91	6,87	4,31	2,51	1,49	0,95	0,65	0,46	0,34	0,26	0,20	0,16	0,13	0,10	0,08
				SGU L/300	12,91	6,87	3,09	1,67	0,99	0,63	0,43	0,31	0,23	0,17	0,13	0,10	0,08	0,07	0,06
0,70	7,85	6,16	4,83 5,07	SGN	22,46	12,03	7,58	5,14	3,70	2,78	2,18	1,75	1,44	1,21	1,02	0,87	0,75	0,66	0,58
				SGU L/150	22,46	12,03	7,58	5,05	2,98	1,88	1,26	0,88	0,64	0,48	0,37	0,29	0,23	0,19	0,16
				SGU L/200	22,46	12,03	7,39	3,85	2,23	1,41	0,94	0,66	0,48	0,36	0,28	0,22	0,18	0,14	0,12
				SGU L/300	22,46	11,33	4,94	2,57	1,49	0,94	0,63	0,44	0,32	0,24	0,19	0,15	0,12	0,10	0,08
0,75	8,41	6,60	5,28 5,43	SGN	25,18	13,50	8,52	5,79	4,14	3,13	2,45	1,96	1,59	1,32	1,11	0,95	0,82	0,72	0,63
				SGU L/150	25,18	13,50	8,52	5,51	3,19	2,01	1,35	0,95	0,69	0,52	0,40	0,31	0,25	0,20	0,17
				SGU L/200	25,18	13,50	8,05	4,13	2,39	1,51	1,01	0,71	0,52	0,39	0,30	0,24	0,19	0,15	0,13
				SGU L/300	25,18	12,37	5,37	2,75	1,59	1,00	0,67	0,47	0,35	0,26	0,20	0,16	0,13	0,10	0,08

T-20 PLUS ROOF																		
S 280 GD				single-span beam														
Thickness	Agross	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]													
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,07 3,61	SGN	18,82	8,38	4,71	3,02	2,10	1,54	1,18	0,93	0,75	0,62	0,52	0,45	0,39	0,34	0,29
				SGU L/150	18,82	7,67	3,36	1,76	1,04	0,66	0,45	0,32	0,23	0,18	0,14	0,11	0,09	0,07	0,06
				SGU L/200	18,82	5,97	2,60	1,36	0,80	0,51	0,34	0,24	0,18	0,13	0,10	0,08	0,07	0,05	0,04
				SGU L/300	13,37	4,15	1,80	0,93	0,55	0,35	0,23	0,17	0,12	0,09	0,07	0,06	0,04	0,04	0,03
0,70	7,85	6,16	4,81 5,07	SGN	32,08	14,28	8,03	5,14	3,57	2,63	2,01	1,59	1,29	1,06	0,89	0,76	0,66	0,57	0,50
				SGU L/150	32,08	12,05	5,23	2,72	1,57	0,99	0,67	0,47	0,34	0,26	0,20	0,16	0,12	0,10	0,08
				SGU L/200	29,76	9,29	3,98	2,04	1,18	0,74	0,50	0,35	0,26	0,19	0,15	0,12	0,09	0,08	0,06
				SGU L/300	20,78	6,28	2,65	1,36	0,79	0,50	0,33	0,23	0,17	0,13	0,10	0,08	0,06	0,05	0,04
0,75	8,41	6,60	5,26 5,43	SGN	35,72	15,90	8,95	5,73	3,98	2,92	2,24	1,77	1,43	1,18	0,99	0,85	0,73	0,64	0,56
				SGU L/150	35,72	13,18	5,69	2,91	1,69	1,06	0,71	0,50	0,36	0,27	0,21	0,17	0,13	0,11	0,09
				SGU L/200	32,62	10,09	4,26	2,19	1,27	0,80	0,53	0,38	0,27	0,21	0,16	0,12	0,10	0,08	0,07
				SGU L/300	22,57	6,73	2,84	1,46	0,84	0,53	0,36	0,25	0,18	0,14	0,11	0,08	0,07	0,05	0,04

T-20 PLUS ROOF																		
S 280 GD				double-span beam														
Thickness	Agross	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]													
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,07 3,61	SGN	11,61	6,14	3,84	2,57	1,84	1,38	1,08	0,87	0,71	0,60	0,51	0,44	0,38	0,33	0,29
				SGU L/150	11,61	6,14	3,84	2,57	1,84	1,38	1,06	0,76	0,56	0,43	0,33	0,26	0,21	0,17	0,14
				SGU L/200	11,61	6,14	3,84	2,57	1,84	1,21	0,83	0,59	0,43	0,33	0,25	0,20	0,16	0,13	0,11
				SGU L/300	11,61	6,14	3,84	2,23	1,32	0,84	0,57	0,40	0,29	0,22	0,17	0,13	0,11	0,09	0,07
0,70	7,85	6,16	4,81 5,07	SGN	20,18	10,74	6,74	4,51	3,23	2,44	1,90	1,53	1,26	1,06	0,90	0,78	0,67	0,58	0,51
				SGU L/150	20,18	10,74	6,74	4,51	3,23	2,38	1,60	1,12	0,82	0,62	0,47	0,37	0,30	0,24	0,20
				SGU L/200	20,18	10,74	6,74	4,51	2,84	1,79	1,20	0,84	0,61	0,46	0,36	0,28	0,22	0,18	0,15
				SGU L/300	20,18	10,74	6,37	3,27	1,89	1,19	0,80	0,56	0,41	0,31	0,24	0,19	0,15	0,12	0,10
0,75	8,41	6,60	5,26 5,43	SGN	22,62	12,05	7,57	5,07	3,63	2,74	2,14	1,73	1,42	1,18	0,99	0,85	0,73	0,64	0,56
				SGU L/150	22,62	12,05	7,57	5,07	3,63	2,55	1,71	1,20	0,88	0,66	0,51	0,40	0,32	0,26	0,21
				SGU L/200	22,62	12,05	7,57	5,07	3,04	1,92	1,28	0,90	0,66	0,49	0,38	0,30	0,24	0,20	0,16
				SGU L/300	22,62	12,05	6,82	3,50	2,03	1,28	0,86	0,60	0,44	0,33	0,25	0,20	0,16	0,13	0,11

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T-20 PLUS ROOF																	
S 280 GD				three-span beam													
Thickness	A_{gross}	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]												
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,07 3,61	SGN	13,97	7,44	4,67	3,19	2,28	1,71	1,34	1,07	0,88	0,74	0,63	0,54	0,47	0,41	0,36
				SGU L/150	13,97	7,44	4,67	3,19	1,92	1,23	0,84	0,60	0,44	0,33	0,26	0,21	0,17	0,13	0,11
				SGU L/200	13,97	7,44	4,67	2,51	1,49	0,95	0,65	0,46	0,34	0,26	0,20	0,16	0,13	0,10	0,08
				SGU L/300	13,97	7,11	3,13	1,67	0,99	0,63	0,43	0,31	0,23	0,17	0,13	0,10	0,08	0,07	0,06
0,70	7,85	6,16	4,81 5,07	SGN	24,27	13,00	8,20	5,58	4,00	3,03	2,36	1,90	1,57	1,31	1,12	0,97	0,84	0,73	0,64
				SGU L/150	24,27	13,00	8,20	5,05	2,98	1,88	1,26	0,88	0,64	0,48	0,37	0,29	0,23	0,19	0,16
				SGU L/200	24,27	13,00	7,39	3,85	2,23	1,41	0,94	0,66	0,48	0,36	0,28	0,22	0,18	0,14	0,12
				SGU L/300	24,27	11,33	4,94	2,57	1,49	0,94	0,63	0,44	0,32	0,24	0,19	0,15	0,12	0,10	0,08
0,75	8,41	6,60	5,26 5,43	SGN	27,21	14,59	9,21	6,27	4,51	3,39	2,66	2,14	1,77	1,47	1,24	1,06	0,92	0,80	0,70
				SGU L/150	27,21	14,59	9,21	5,51	3,19	2,01	1,35	0,95	0,69	0,52	0,40	0,31	0,25	0,20	0,17
				SGU L/200	27,21	14,59	8,05	4,13	2,39	1,51	1,01	0,71	0,52	0,39	0,30	0,24	0,19	0,15	0,13
				SGU L/300	27,21	12,37	5,37	2,75	1,59	1,00	0,67	0,47	0,35	0,26	0,20	0,16	0,13	0,10	0,08

T-20 PLUS ROOF																	
S 320 GD				single-span beam													
Thickness	A_{gross}	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]												
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,05 3,56	SGN	20,88	9,29	5,23	3,35	2,33	1,71	1,31	1,03	0,84	0,69	0,58	0,50	0,43	0,37	0,33
				SGU L/150	20,88	7,67	3,36	1,76	1,04	0,66	0,45	0,32	0,23	0,18	0,14	0,11	0,09	0,07	0,06
				SGU L/200	18,84	5,97	2,60	1,36	0,80	0,51	0,34	0,24	0,18	0,13	0,10	0,08	0,07	0,05	0,04
				SGU L/300	13,37	4,15	1,80	0,93	0,55	0,35	0,23	0,17	0,12	0,09	0,07	0,06	0,04	0,04	0,03
0,70	7,85	6,16	4,78 5,07	SGN	35,64	15,86	8,93	5,72	3,97	2,92	2,23	1,76	1,43	1,18	0,99	0,85	0,73	0,64	0,56
				SGU L/150	35,64	12,05	5,23	2,72	1,57	0,99	0,67	0,47	0,34	0,26	0,20	0,16	0,12	0,10	0,08
				SGU L/200	29,76	9,29	3,98	2,04	1,18	0,74	0,50	0,35	0,26	0,19	0,15	0,12	0,09	0,08	0,06
				SGU L/300	20,78	6,28	2,65	1,36	0,79	0,50	0,33	0,23	0,17	0,13	0,10	0,08	0,06	0,05	0,04
0,75	8,41	6,60	5,23 5,43	SGN	39,72	17,68	9,95	6,37	4,42	3,25	2,49	1,97	1,59	1,32	1,11	0,94	0,81	0,71	0,62
				SGU L/150	39,72	13,18	5,69	2,91	1,69	1,06	0,71	0,50	0,36	0,27	0,21	0,17	0,13	0,11	0,09
				SGU L/200	32,62	10,09	4,26	2,19	1,27	0,80	0,53	0,38	0,27	0,21	0,16	0,12	0,10	0,08	0,07
				SGU L/300	22,57	6,73	2,84	1,46	0,84	0,53	0,36	0,25	0,18	0,14	0,11	0,08	0,07	0,05	0,04

T-20 PLUS ROOF																	
S 320 GD				double-span beam													
Thickness	A_{gross}	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]												
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,05 3,56	SGN	12,75	6,75	4,22	2,85	2,03	1,53	1,19	0,96	0,78	0,66	0,56	0,48	0,42	0,36	0,32
				SGU L/150	12,75	6,75	4,22	2,85	2,03	1,53	1,06	0,76	0,56	0,43	0,33	0,26	0,21	0,17	0,14
				SGU L/200	12,75	6,75	4,22	2,85	1,87	1,21	0,83	0,59	0,43	0,33	0,25	0,20	0,16	0,13	0,11
				SGU L/300	12,75	6,75	4,16	2,23	1,32	0,84	0,57	0,40	0,29	0,22	0,17	0,13	0,11	0,09	0,07
0,70	7,85	6,16	4,78 5,07	SGN	22,12	11,78	7,40	4,97	3,56	2,68	2,10	1,69	1,39	1,16	0,99	0,86	0,74	0,65	0,57
				SGU L/150	22,12	11,78	7,40	4,97	3,56	2,38	1,60	1,12	0,82	0,62	0,47	0,37	0,30	0,24	0,20
				SGU L/200	22,12	11,78	7,40	4,90	2,84	1,79	1,20	0,84	0,61	0,46	0,36	0,28	0,22	0,18	0,15
				SGU L/300	22,12	11,78	6,37	3,27	1,89	1,19	0,80	0,56	0,41	0,31	0,24	0,19	0,15	0,12	0,10
0,75	8,41	6,60	5,23 5,43	SGN	24,79	13,22	8,31	5,58	4,00	3,02	2,36	1,90	1,56	1,31	1,12	0,96	0,83	0,72	0,64
				SGU L/150	24,79	13,22	8,31	5,58	4,00	2,55	1,71	1,20	0,88	0,66	0,51	0,40	0,32	0,26	0,21
				SGU L/200	24,79	13,22	8,31	5,25	3,04	1,92	1,28	0,90	0,66	0,49	0,38	0,30	0,24	0,20	0,16
				SGU L/300	24,79	13,22	6,82	3,50	2,03	1,28	0,86	0,60	0,44	0,33	0,25	0,20	0,16	0,13	0,11

T-20 PLUS ROOF																	
S 320 GD				three-span beam													
Thickness	A_{gross}	Mass	J_x (min/max)	Limit state	Acceptable continuous load q [kN/m2] evenly distributed over span L [m]												
[mm]	[cm^2/m]	[kg/m^2]	[cm^4/m]		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
0,50	5,61	4,40	3,05 3,56	SGN	15,33	8,17	5,13	3,53	2,52	1,89	1,48	1,19	0,97	0,82	0,69	0,60	0,52	0,45	0,40
				SGU L/150	15,33	8,17	5,13	3,19	1,92	1,23	0,84	0,60	0,44	0,33	0,26	0,21	0,17	0,13	0,11
				SGU L/200	15,33	8,17	4,67	2,51	1,49	0,95	0,65	0,46	0,34	0,26	0,20	0,16	0,13	0,10	0,08
				SGU L/300	15,33	7,11	3,13	1,67	0,99	0,63	0,43	0,31	0,23	0,17	0,13	0,10	0,08	0,07	0,06
0,70	7,85	6,16	4,78 5,07	SGN	26,60	14,26	8,99	6,16	4,41	3,33	2,60	2,10	1,72	1,44	1,23	1,06	0,93	0,81	0,71
				SGU L/150	26,60	14,26	8,99	5,05	2,98	1,88	1,26	0,88	0,64	0,48	0,37	0,29	0,23	0,19	0,16
				SGU L/200	26,60	14,26	7,39	3,85	2,23	1,41	0,94	0,66	0,48	0,36	0,28	0,22	0,18	0,14	0,12
				SGU L/300	26,60	11,33	4,94	2,57	1,49	0,94	0,63	0,44	0,32	0,24	0,19	0,15	0,12	0,10	0,08
0,75	8,41	6,60	5,23 5,43	SGN	29,81	16,00	10,10	6,91	4,96	3,75	2,93	2,35	1,94	1,63	1,39	1,20	1,04	0,90	0,79
				SGU L/150	29,81	16,00	10,10	5,51	3,19	2,01	1,35	0,95	0,69	0,52	0,40	0,31	0,25	0,20	0,17
				SGU L/200	29,81	16,00	8,05	4,13	2,39	1,51	1,01	0,71	0,52	0,39	0,30	0,24	0,19	0,15	0,13
				SGU L/300	29,81	12,37	5,37	2,75	1,59	1,00	0,67	0,47	0,35	0,26	0,20	0,16	0,13	0,10	0,08

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