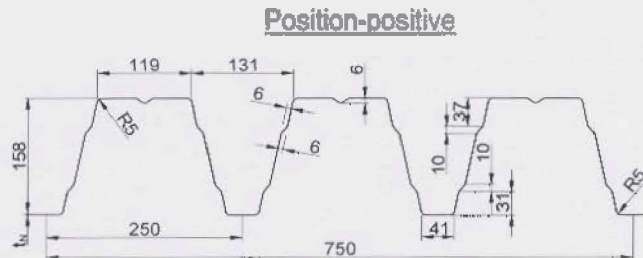


Trapezoidal corrugated profile type:

TR 160

Values of cross-section and resistance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"

 Measurements
in [mm]

 Yield strength of steel core $f_y, k 0 320 \text{ N/mm}^2$

Values of cross-section

thickness of plate	dead load	bending ¹⁾		normal force stress						limit of span widths ³⁾	
		I_{ef}^+ [cm ⁴ /m]	I_{ef}^- [cm ⁴ /m]	not reduced cross-section			contributive cross-section ²⁾			L_{gr} [m]	
				A_g [cm ² /m]	i_g [cm]	z_g [cm]	A_{ef} [cm ² /m]	i_{ef} [cm]	z_{ef} [cm]	single field beam	multiple field beam
t_N [mm]	g [kN/m ²]										
0,75	0,121	458	458	13,9	5,66	9,18	5,67	6,59	8,75	7,75	9,69
0,88	0,142	542	542	16,5	5,66	9,18	7,69	6,54	8,77	10,0	12,5
1,00	0,161	619	619	18,8	5,66	9,18	9,75	6,50	8,80	11,4	14,3
1,25	0,201	780	780	23,8	5,66	9,18	14,4	6,39	8,97	14,4	18,0
1,50	0,242	942	942	28,7	5,66	9,18	19,5	6,25	9,12	17,4	21,7

values of shear field

[mm]	$\min L_S$ ⁴⁾ [m]	$\text{zul } T_1$ [kN/m]	$\text{zul } T_2$ [kN/m]	$\text{zul } T_3 = G_s / 750$ [kN/m]		K_3 ⁶⁾ [-]	$\text{zul } F_t$ ⁷⁾	
				L_G ⁵⁾ [m]	$G_s = 10^4 / (K_1 + K_2 / L_S)$		standartlength a	
					K_1 [m/kN]	K_2 [m ² /kN]	$\geq 130 \text{ mm}$ [kN]	$\geq 280 \text{ mm}$ [kN]

Execution according DIN 18807 part 3, figure 6

0,75	5,0	1,60	1,73	8,6	0,343	68,3	0,69	9,00	12,0
0,88	4,6	2,06	2,64	7,3	0,290	44,9	0,76	10,6	14,2
1,00	4,3	2,51	3,69	6,4	0,254	32,1	0,81	12,2	16,2
1,25	3,8	3,56	6,57	5,1	0,201	18,0	0,91	15,3	20,5
1,50	3,5	4,72	10,5	4,3	0,167	11,3	1,00	18,5	24,7

Execution according DIN 18807 part 3, figure 7

0,75	5,2	3,62	1,64	5,9	0,343	46,4	1,13	9,00	12,0
0,88	4,8	4,66	2,49	6,0	0,290	30,4	1,13	10,6	14,2
1,00	4,5	5,70	3,48	6,1	0,254	21,8	1,13	12,2	16,2
1,25	4,0	8,06	6,21	6,3	0,201	12,20	1,13	15,3	20,5
1,50	3,6	10,7	9,93	6,5	0,167	7,64	1,13	18,5	24,7

¹⁾ Effective moment of inertia for direction of load downwards (+) or upwards (-).

²⁾ Coefficient width for constant comprehensive strength.

$$\sigma = f_{yk}$$

³⁾ Maximum spans the trapezoidal corrugated profile can be used as a loading component for roof systems.

These standart does not apply, whenever load distributioning arrangements (e.g. timber planks) are used to walk on profile.

⁴⁾ If shear field lengths $L_S < \min L_S$ the shear flow have to be reduced.

⁵⁾ If shear field lengths $L_S > L_G$ then $\text{zul } T_3$ is not relevant.

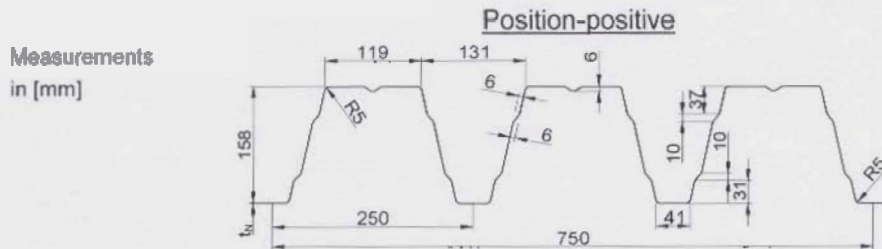
⁶⁾ Support-contact forces $R_S = K_3 \cdot \gamma \cdot T$; (T = existing shear flow in [kN/m])

⁷⁾ Single load according to DIN 18807 part 3, chapter 3.6.1.5

Trapezoidal corrugated profile type:

TR 160

Values of crosssection and resistance according DIN 18807 and
the "Anpassungsrichtlinie Stahlbau"



Characteristic values of resistance
at down-pointing and pushing UDL ¹⁾

thickness of plate	panel moment	Forces of end- support		intermediate support: method of proof E-E				intermediate support: method of proof P-P		
		load capacity	usability	interaction bending moment/support force ⁵⁾				residual support moment ⁶⁾		
				$\frac{\gamma_F \cdot M_{B,S,k}}{M_{B,k}^0 / \gamma_M} + \left(\frac{\gamma_F \cdot R_{B,S,k}}{R_{B,k}^0 / \gamma_M} \right)^e \leq 1$	intermediat e support force	$M_{R,k} = 0 \text{ für } L \leq \min \ell$ $M_{R,k} = \frac{L - \min \ell}{\max \ell - \min \ell} \cdot \max M_{R,k}$ $M_{R,k} = \max M_{R,k} \text{ für } L \geq \max \ell$				
t _N [mm]	M _{F,k} [kNm/m]	R _{A,T,k} [kN/m]	R _{A,G,k} [kN/m]	M _{B,k} ⁰ [kNm/m]	R _{B,k} ⁰ [kN/m]	maxM _{B,k} [kNm/m]	maxR _{B,k} [kN/m]	min ℓ [m]	max ℓ [m]	maxM _{R,k} [kNm/m]
		2) b _A +ü = 40 mm		3) intermediate support width b _B = 60 mm, ε = 2						
0,75	13,2	11,4	8,71	13,6	26,66	9,92	25,5	3,65	9,15	3,29
0,88	17,5	17,0	13,0	17,0	37,11	13,2	36,5	3,48	8,41	3,95
1,00	22,1	22,3	17,0	20,9	49,37	18,0	46,2	3,38	7,91	5,34
1,25	27,8	28,1	21,4	26,3	62,05	22,8	58,2	3,66	8,14	6,62
1,50	33,6	33,8	25,9	31,7	74,88	27,3	70,2	3,73	8,21	8,00
		2) b _A +ü = 40 mm		4) intermediate support width b _B ≥ 160 mm, ε = 2						
0,75	13,2	11,4	8,71	15,6	38,83	13,1	32,9	4,63	7,96	3,83
0,88	17,5	17,0	13,0	19,5	57,85	17,6	48,6	4,28	7,27	5,01
1,00	22,1	22,3	17,0	22,6	77,96	21,1	63,5	4,13	7,19	6,95
1,25	27,8	28,1	21,4	28,5	98,76	27,2	80,0	4,06	6,97	8,65
1,50	33,6	33,8	25,9	34,5	119,2	33,0	96,3	4,05	6,97	10,5

Characteristic values of resistance
at up-pointing and lifting UDL ¹⁾

thickness of plate t_N [mm]	panel moment $M_{F,k}$ [kNm/m]	connection at every touching point						connection at every second belt			
		end- support $R_{A,k}$ [kN/m]	⁵⁾ intermediate support, $\epsilon =$				end- support $R_{A,k}$ [kN/m]	⁵⁾ intermediate support, $\epsilon = 1$			
			$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]		$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]
0,75	14,2	11,4	14,2	36,66	11,4	27,7	5,70	7,11	18,34	5,70	13,8
0,88	17,8	17,0	18,7	45,41	15,7	37,6	8,53	9,38	22,76	7,84	18,7
1,00	21,5	22,3	24,8	58,27	18,4	48,4	11,2	12,4	29,19	9,16	24,3
1,25	27,0	28,1	31,3	73,85	23,1	60,5	14,0	15,7	36,85	11,5	30,6
1,50	32,5	33,8	37,9	89,27	27,9	73,6	16,9	18,9	44,34	13,9	36,9

¹⁾ Instead of line load cross the direction of spanning and of single load the certificate has not to be determined by the field moment $M_{F,k}$, but with the support moment $M_{B,k}$ for the opponent direction of load

²⁾ $b_A + \bar{u} =$ end support width including profile overhang.

³⁾ For smaller support widths the characteristic values of resistance have to be reduced proportional.

If support width is < 10 mm, e.g. by pipes, 10 mm can be inserted.

⁴⁾ If support width is between the listed values it is allowed to interpolate the characteristic values of resistance linear.

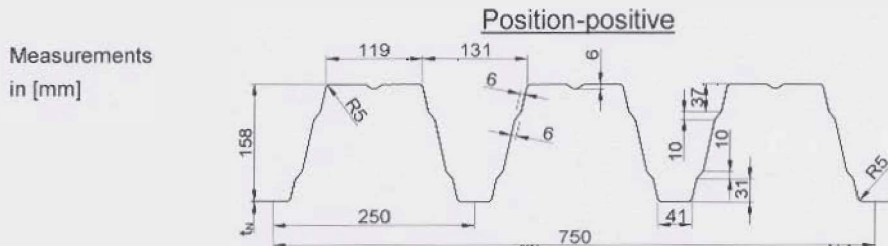
⁵⁾ Interaction like pictured above. Are there no values for $M_{B,k}^0$ and $R_{B,k}^0$, $\gamma_F \cdot M_{B,S,k} \leq \max M_{B,k} / \gamma_M$ und $\gamma_F \cdot R_{B,S,k} \leq \max R_{B,k} / \gamma_M$ is essential

⁶⁾ $L =$ smaller of adjacent pitches. Are there no values for remaining pitch-moments, for structural safety certificate $M_{B,k} = 0$ or certificate according to elastic-elastic operation.

Trapezoidal corrugated profile type:

TR 160

Values of crosssection and resistance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"



Characteristic values of resistance at down-pointing and pushing UDL ¹⁾

thickness of plate	intermediate support: method of proof E-E							intermediate support: method of proof P-P		
	interaction bending moment/support force ^{a)}							residual support moment ^{b)}		
	usability				intermediate support force					
t_N	$M_{F,k}$	$R_{A,T,k}$	$R_{A,G,k}$	$\frac{\gamma_F \cdot M_{B,S,k}}{M_{B,k}^0 / \gamma_M} + \left(\frac{\gamma_F \cdot R_{B,S,k}}{R_{B,k}^0 / \gamma_M} \right)^c \leq 1$				$M_{R,k} = 0 \text{ für } L \leq \min \ell$ $M_{R,k} = \frac{L - \min \ell}{\max \ell - \min \ell} M_{R,k}$ $M_{R,k} = \max M_{R,k} \text{ für } L \geq \max \ell$		
[mm]	[kNm/m]	[kN/m]	[kN/m]	$M_{B,k}^0$	$R_{B,k}^0$	$\max M_{B,k}$	$\max R_{B,k}$	$\min \ell$	$\max \ell$	$\max M_{R,k}$
				[kNm/m]	[kN/m]	[kNm/m]	[kN/m]	[m]	[m]	[kNm/m]
		²⁾ $b_A + \bar{u} = 40 \text{ mm}$		³⁾ intermediate support width $b_B = 60 \text{ mm}, \quad \epsilon = 2$						
0,75	13,2	11,4	8,71	9,44	20,65	7,50	18,1	6,96	7,66	2,36
0,88	17,5	17,0	13,0	13,5	30,68	10,8	26,3	6,52	7,22	3,38
1,00	22,1	22,3	17,0	17,3	40,05	13,8	33,8	6,31	7,01	4,32
1,25	27,8	28,1	21,4	21,6	50,19	17,3	42,2	6,31	7,01	5,41
1,50	33,6	33,8	25,9	26,0	60,17	20,7	50,7	6,34	7,05	6,49
		²⁾ $b_A + \bar{u} = \text{ mm}$		⁴⁾ intermediate support width $b_B \geq 160 \text{ mm}, \quad \epsilon = 2$						
0,75										
0,88										
1,00										
1,25										
1,50										

Characteristic values of resistance at up-pointing and lifting UDL ¹⁾

thickness of plate t_N [mm]	panel moment $M_{F,k}$ [kNm/m]	connection at every touching point					connection at every second belt				
		end-support $R_{A,k}$ [kN/m]	⁵⁾ intermediate support, $\epsilon =$				end-support $R_{A,k}$ [kN/m]	⁵⁾ intermediate support, $\epsilon = 1$			
			$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]		$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]
0,75	14,2	11,4	14,2	36,66	11,4	27,7	5,70	7,11	18,34	5,70	13,8
0,88	17,8	17,0	18,7	45,41	15,7	37,6	8,53	9,38	22,76	7,84	18,7
1,00	21,5	22,3	24,8	58,27	18,4	48,4	11,2	12,4	29,19	9,16	24,3
1,25	27,0	28,1	31,3	73,85	23,1	60,5	14,0	15,7	36,85	11,5	30,6
1,50	32,5	33,8	37,9	89,27	27,9	73,6	16,9	18,9	44,34	13,9	36,9

¹⁾ Instead of line load cross the direction of spanning and of single load the certificate has not to be determined by the field moment $M_{F,k}$, but with the support moment $M_{B,k}$ for the opponent direction of load

²⁾ $b_A + \bar{u}$ = end support width including profile overhang.

³⁾ For smaller support widths the characteristic values of resistance have to be reduced proportional.

If support widths is < 10 mm, e.g. by pipes, 10 mm can be inserted

⁴⁾ If support width is between the listed values it is allowed to interpolate the characteristic values of resistance linear.

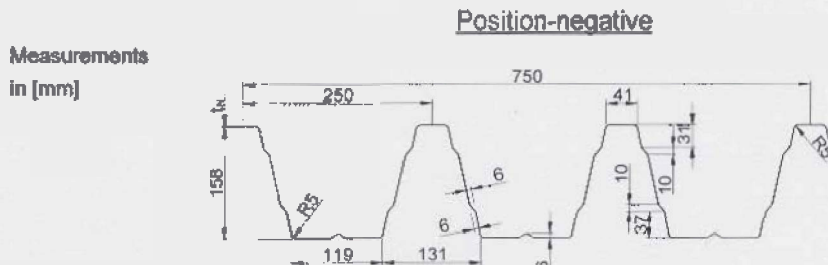
⁵⁾ Interaction like pictured above. Are there no values for $M_{B,k}^0$ and $R_{B,k}^0$, $\gamma_F \cdot M_{B,S,k} \leq \max M_{B,k} / \gamma_M$ und $\gamma_F \cdot R_{B,S,k} \leq \max R_{B,k} / \gamma_M$ is essential

⁶⁾ L = smaller of adjacent pitches. Are there no values for remaining pitch-moments, for structural safety certificate $M_{R,k} = 0$ or or certificate according to elastic-elastic operation.

Novotechprom TR160 Position: negative

Trapezoidal corrugated profile type: TR 160

Values of cross-section and resistance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"



Yield strength of steel core $f_{y,k}$ 0 320 N/mm²

Values of cross-section

thickness of plate t_N [mm]	dead load g [kN/m ²]	bending ¹⁾		normal force stress						limit of span widths ²⁾	
		I_{ef} [cm ⁴ /m]	I_{or} [cm ⁴ /m]	not reduced cross-section			contributive cross-section ²⁾			L_{gr} [m]	
				A_g [cm ² /m]	I_g [cm]	z_g [cm]	A_{ef} [cm ² /m]	I_{or} [cm]	[cm]	single field beam	multiple field beam
0,75	0,121	458	458	13,9	5,66	6,62	5,67	6,59	7,05	7,75	9,69
0,88	0,142	542	542	16,5	5,66	6,62	7,69	6,54	7,03	10,0	12,5
1,00	0,161	619	619	18,8	5,66	6,62	9,75	6,50	7,00	11,4	14,3
1,25	0,201	780	780	23,8	5,66	6,62	14,4	6,39	6,83	14,4	18,0
1,50	0,242	942	942	28,7	5,66	6,62	19,5	6,25	6,68	17,4	21,7

values of shear field

t_N [mm]	$\min L_S^{4)}$ [m]	$zul T_1$ [kN/m]	$zul T_2$ [kN/m]	$zul T_3 = G_S / 750$ [kN/m]			$K_3^{6)}$ [-]	$zul F_1^{7)}$	
				$L_G^{5)}$ [m]	$G_S = 10^4 / (K_1 + K_2 / L_S)$			standartlength a	
					K_1 [m/kN]	K_2 [m ² /kN]		≥ 130 mm [kN]	≥ 280 mm [kN]

Execution according DIN 18807 part 3, figure 6

0,75	5,5	2,25	1,53	11,4	0,343	95,1	0,36	14,0	14,0
0,88	5,0	2,90	2,34	11,6	0,290	62,5	0,39	16,6	16,6
1,00	4,7	3,54	3,26	11,7	0,254	44,7	0,42	18,9	18,9
1,25	4,2	5,01	5,82	10,2	0,201	25,1	0,47	23,9	23,9
1,50	3,8	6,65	9,30	8,5	0,167	15,7	0,51	28,8	28,8

Execution according DIN 18807 part 3, figure 7

0,75	2,5	9,56	8,47	2,5	0,343	3,05	1,49	14,0	14,0
0,88	2,3	12,3	12,9	2,3	0,290	2,00	1,49	16,6	16,6
1,00	2,1	15,0	18,0	2,1	0,254	1,43	1,49	18,9	18,9
1,25	1,9	21,3	32,1	1,9	0,201	0,804	1,49	23,9	23,9
1,50	1,7	28,2	51,3	1,7	0,167	0,503	1,49	28,8	28,8

¹⁾ Effective moment of inertia for direction of load downwards (+) or upwards (-).

²⁾ Coefficient width for constant comprehensive strength. $\sigma = f_{yk}$

³⁾ Maximum spans the trapezoidal corrugated profile can be used as a loading component for roof systems.

These standart does not apply, whenever load distributioning arrangements (e.g. timber planks) are used to walk on profile.

⁴⁾ If shear field lengths $L_S < \min L_S$ the shear flow have to be reduced.

⁵⁾ If shear field lengths $L_S > L_G$ then $zul T_3$ is not relevant.

⁶⁾ Support-contact forces $R_S = K_3 \cdot \gamma \cdot T$; (T = existing shear flow in [kN/m])

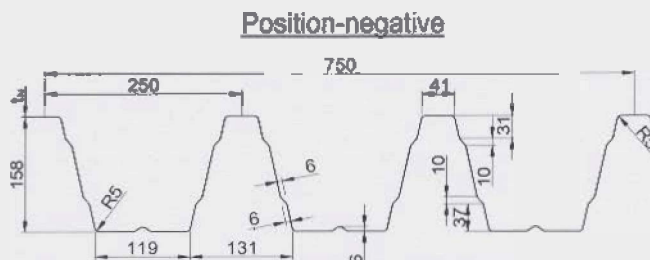
⁷⁾ Single load according to DIN 18807 part 3, chapter 3.8.1.5

Trapezoidal corrugated profile type:

TR 160

Values of cross-section and resistance according DIN 18807 and
the "Anpassungsrichtlinie Stahlbau"

Measurements
in [mm]



Characteristic values of resistance
at down-pointing and pushing UDL ¹⁾

thickness of plate	panel moment	Forces of end- support		intermediate support: method of proof E-E interaction bending moment/support force ⁵⁾				intermediate support: method of proof P-P residual support moment ⁶⁾		
		load capacity	usability	$\frac{\gamma_F \cdot M_{B,S,k}}{M_{B,k}^0 / \gamma_M} + \left(\frac{\gamma_F \cdot R_{B,S,k}}{R_{B,k}^0 / \gamma_M} \right)^{\epsilon} \leq 1$		Zwischen- auflager- kraft		$M_{R,k} = 0 \text{ für } L \leq \min \ell$ $M_{R,k} = \frac{L - \min \ell}{\max \ell - \min \ell} \cdot \max M_{R,k}$ $M_{R,k} = \max M_{R,k} \text{ für } L \geq \max \ell$		
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,T,k}$ [kN/m]	$R_{A,G,k}$ [kN/m]	$M_{B,k}^0$ [kNm/m]	[kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]	$\min \ell$ [m]	$\max \ell$ [m]	$\max M_{R,k}$ [kNm/m]
		²⁾ $b_A + \bar{u} = 40 \text{ mm}$		³⁾ intermediate support width $b_B = 60 \text{ mm}$, $\epsilon = 2$						
0,75	14,2	11,4	8,71	12,9	25,43	10,1	23,1	4,91	7,94	3,02
0,88	17,8	17,0	13,0	19,8	33,64	13,8	30,9	4,41	6,99	4,34
1,00	21,5	22,3	17,0	23,0	45,22	17,4	41,0	4,20	6,84	6,21
1,25	27,0	28,1	21,4	29,0	57,08	21,9	51,6	4,21	6,86	7,83
1,50	32,5	33,8	25,9	35,0	68,63	26,4	62,3	4,21	6,87	9,48
		²⁾ $b_A + \bar{u} = 40 \text{ mm}$		⁴⁾ intermediate support width $b_B \geq 160 \text{ mm}$, $\epsilon = 2$						
0,75	14,2	11,4	8,71	13,4	36,24	11,3	31,5	4,74	8,43	4,11
0,88	17,8	17,0	13,0	20,1	52,01	17,4	42,9	4,88	8,50	5,70
1,00	21,5	22,3	17,0	23,4	71,11	20,1	56,7	4,25	7,34	7,22
1,25	27,0	28,1	21,4	29,4	89,47	25,4	71,4	4,28	7,37	9,10
1,50	32,5	33,8	25,9	35,5	107,8	30,6	86,3	4,27	7,36	10,9

Characteristic values of resistance
at up-pointing and lifting UDL ¹⁾

thickness of plate	panel moment	connection at every touching point					connection at every second belt				
		end- support	⁵⁾ intermediate support, $\epsilon =$				end- support	⁵⁾ intermediate support, $\epsilon = 1$			
			$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]		$M_{B,k}^0$ [kNm/m]	$R_{B,k}^0$ [kN/m]	$\max M_{B,k}$ [kNm/m]	$\max R_{B,k}$ [kN/m]
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,k}$ [kN/m]					$R_{A,k}$ [kN/m]				
0,75	13,2	11,4	14,5	28,44	10,6	27,2	5,70	7,68	15,08	5,63	14,4
0,88	17,5	17,0	17,8	39,07	14,0	38,4	8,50	9,61	21,02	7,51	20,7
1,00	22,1	22,3	20,4	48,33	17,7	44,9	11,1	11,8	28,00	10,2	26,2
1,25	27,8	28,1	25,7	60,83	22,3	57,0	14,0	14,9	35,28	12,8	33,0
1,50	33,6	33,8	31,1	74,17	26,9	68,9	16,9	18,0	42,85	15,5	39,8

¹⁾ Instead of line load cross the direction of spanning and of single load the certificate has not to be determined by the field moment $M_{F,k}$, but with the support moment $M_{B,k}$ for the opponent direction of load

²⁾ $b_A + \bar{u}$ = end support width including profile overhang.

³⁾ For smaller support widths the characteristic values of resistance have to be reduced proportional.

If support width is $\leq 10 \text{ mm}$, e.g. by pipes, 10 mm can be inserted.

⁴⁾ If support width is between the listed values it is allowed to interpolate the characteristic values of resistance linear.

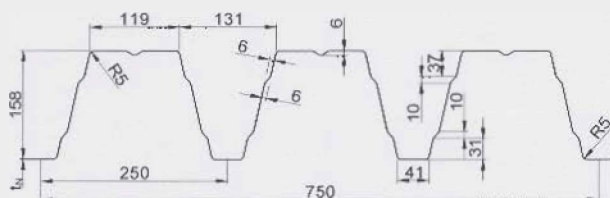
⁵⁾ Interaction like pictured above. Are there no values for $M_{B,k}^0$ and $R_{B,k}^0$, $\gamma_F \cdot M_{B,S,k} \leq \max M_{B,k} / \gamma_M$ und $\gamma_F \cdot R_{B,S,k} \leq \max R_{B,k} / \gamma_M$ is essential

⁶⁾ L = smaller of adjacent pitches. Are there no values for remaining pitch-moments, for structural safety certificate $M_{R,k} = 0$ or or certificate according to elastic-elastic operation.

Stress-table for an evenly distributed load

Table of profile in positive position

Measurements
in [mm]



The trapezoidal corrugated profile as component is for individual persons only walkable across load distributing arrangements (e.g. timber planks).
An accordant advice had to be made on laying plan.

Line *: Maximum permissible stress without limitations by deflection.

Line L/....: Permissible stress under additional limitation by deflection – $\max f \leq L/...$

These values are also valid for the lower part of the table for two- and three-field beams if they are lower than those in line *.

The tables do not replace the necessary statically building construction certificate. The details for permissible stress in $[\text{kN/m}^2]$ had been determined according to regulations of DIN 18807 and the adaptation guideline for structural steelwork.

Particularly at multiple field beams the maximum supply length should be considered.

Single field beams, permissible uniformly distributed load (UDL) $[\text{kN/m}^2]$ 

span widths L[m]	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00	6,25	6,50	6,75	7,00	7,25	7,50	7,75	8,00	8,25	8,50	8,75	9,00
t_b	12,1																						
g	*																						
max f																							
widths of end-supports: $b_A = 40 \text{ mm}$																							
0,75																							
L/150	3,93	3,67	3,44	3,24	3,06	2,84	2,56	2,32	2,12	1,94	1,78	1,64	1,51	1,40	1,31	1,22	1,14	1,07	1,00	0,94	0,89	0,84	0,79
L/300	3,93	3,67	3,44	3,20	2,70	2,30	1,97	1,70	1,48	1,29	1,14	1,01	0,90	0,80	0,72	0,65	0,58	0,53	0,48	0,44	0,40	0,37	0,34
L/500	3,45	2,81	2,30	1,92	1,62	1,38	1,18	1,02	0,89	0,78	0,68	0,61	0,54	0,48	0,43	0,39	0,35	0,32	0,29	0,26	0,24	0,22	0,20
0,88																							
L/150	5,87	5,48	5,14	4,70	4,19	3,76	3,39	3,08	2,81	2,57	2,36	2,17	2,01	1,86	1,73	1,61	1,51	1,41	1,33	1,25	1,17	1,11	1,05
L/300	5,87	5,48	5,14	4,70	4,19	3,76	3,39	3,08	2,81	2,57	2,36	2,17	2,01	1,86	1,70	1,53	1,38	1,25	1,14	1,04	0,95	0,87	0,80
L/500	5,87	5,48	4,54	3,79	3,20	2,72	2,33	2,01	1,75	1,53	1,35	1,19	1,06	0,95	0,85	0,76	0,69	0,63	0,57	0,52	0,47	0,43	0,40
1,00																							
L/150	7,68	7,17	6,70	5,93	5,29	4,75	4,29	3,89	3,54	3,24	2,98	2,74	2,54	2,35	2,19	2,04	1,90	1,78	1,67	1,57	1,48	1,40	1,32
L/300	7,68	7,17	6,70	5,93	5,29	4,75	4,29	3,89	3,54	3,24	2,98	2,73	2,42	2,16	1,94	1,75	1,58	1,43	1,30	1,19	1,08	0,99	0,91
L/500	7,68	6,32	5,18	4,33	3,65	3,11	2,66	2,30	2,00	1,75	1,54	1,36	1,21	1,08	0,97	0,87	0,79	0,71	0,65	0,59	0,54	0,50	0,46
1,25																							
L/150	9,67	9,02	8,42	7,46	6,66	5,97	5,39	4,89	4,46	4,08	3,74	3,45	3,19	2,96	2,75	2,56	2,40	2,24	2,11	1,98	1,87	1,76	1,66
L/300	9,67	9,02	8,42	7,46	6,66	5,97	5,39	4,89	4,46	4,08	3,74	3,44	3,05	2,73	2,45	2,20	1,99	1,80	1,64	1,49	1,37	1,25	1,15
L/500	9,67	7,96	6,53	5,45	4,60	3,91	3,36	2,90	2,52	2,20	1,94	1,72	1,53	1,36	1,22	1,10	0,99	0,90	0,82	0,75	0,68	0,63	0,58
1,50																							
L/150	11,70	10,92	10,18	9,02	8,05	7,22	6,52	5,91	5,39	4,93	4,53	4,17	3,86	3,58	3,32	3,10	2,90	2,71	2,55	2,39	2,25	2,13	2,01
L/300	11,70	10,92	10,18	9,02	8,05	7,22	6,52	5,91	5,39	4,93	4,53	4,15	3,69	3,29	2,95	2,66	2,40	2,18	1,98	1,80	1,65	1,51	1,39
L/500	11,70	9,62	7,89	6,59	5,55	4,73	4,05	3,50	3,05	2,66	2,34	2,08	1,84	1,65	1,48	1,33	1,20	1,09	0,99	0,90	0,82	0,76	0,69
	7,09	5,77	4,73	3,95	3,33	2,84	2,43	2,10	1,83	1,60	1,41	1,25	1,11	0,99	0,89	0,80	0,72	0,65	0,59	0,54	0,49	0,45	0,42



Two field beams, permissible uniformly distributed load (UDL) [kN/m²]

span widths [m]			3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00	6,25	6,50	6,75	7,00	7,25	7,50	7,75	8,00	8,25	8,50	8,75	9,00	
t _n	g	max f	widths of end-supports: bA = 40 mm; widths between bearings: bB ≥ 160 mm																							
0,75	12,1	*	3,94	3,68	3,45	3,25	3,07	2,85	2,60	2,38	2,19	2,03	1,88	1,75	1,64	1,53	1,44	1,35	1,28	1,21	1,14	1,07	1,01	0,95	0,90	
		L/150	3,94	3,68	3,45	3,25	3,07	2,85	2,60	2,38	2,19	2,03	1,88	1,75	1,64	1,53	1,44	1,35	1,28	1,21	1,14	1,07	1,01	0,95	0,90	
		L/300	3,94	3,68	3,45	3,25	3,07	2,85	2,60	2,38	2,19	2,03	1,88	1,75	1,64	1,53	1,44	1,35	1,28	1,21	1,14	1,05	0,96	0,88	0,81	
		L/500	3,94	3,68	3,45	3,25	3,07	2,85	2,60	2,38	2,13	1,87	1,64	1,45	1,29	1,16	1,04	0,93	0,84	0,76	0,69	0,63	0,58	0,53	0,49	
0,88	14,2	*	5,88	5,48	5,15	4,69	4,24	3,84	3,51	3,22	2,97	2,74	2,55	2,37	2,22	2,08	1,95	1,84	1,72	1,61	1,51	1,42	1,34	1,26	1,19	
		L/150	5,88	5,48	5,15	4,69	4,24	3,84	3,51	3,22	2,97	2,74	2,55	2,37	2,22	2,08	1,95	1,84	1,72	1,61	1,51	1,42	1,34	1,26	1,19	
		L/300	5,88	5,48	5,15	4,69	4,24	3,84	3,51	3,22	2,97	2,74	2,55	2,37	2,22	2,08	1,95	1,84	1,66	1,50	1,37	1,25	1,14	1,05	0,96	
		L/500	5,88	5,48	5,15	4,69	4,24	3,84	3,37	2,90	2,52	2,21	1,95	1,72	1,53	1,37	1,23	1,10	1,00	0,90	0,82	0,75	0,68	0,63	0,58	
1,00	16,1	*	7,72	7,15	6,47	5,88	5,37	4,90	4,48	4,11	3,79	3,50	3,26	3,03	2,83	2,66	2,50	2,35	2,20	2,06	1,93	1,81	1,71	1,61	1,52	
		L/150	7,72	7,15	6,47	5,88	5,37	4,90	4,48	4,11	3,79	3,50	3,26	3,03	2,83	2,66	2,50	2,35	2,20	2,06	1,93	1,81	1,71	1,61	1,52	
		L/300	7,72	7,15	6,47	5,88	5,37	4,90	4,48	4,11	3,79	3,50	3,26	3,03	2,83	2,60	2,33	2,10	1,90	1,72	1,56	1,43	1,30	1,19	1,10	
		L/500	7,72	7,15	6,47	5,88	5,28	4,49	3,84	3,32	2,88	2,53	2,22	1,97	1,75	1,56	1,40	1,26	1,14	1,03	0,94	0,86	0,78	0,72	0,66	
1,25	20,1	*	9,73	9,04	8,17	7,43	6,78	6,19	5,66	5,20	4,80	4,43	4,12	3,84	3,59	3,37	3,17	2,95	2,76	2,58	2,42	2,28	2,15	2,03	1,92	
		L/150	9,73	9,04	8,17	7,43	6,78	6,19	5,66	5,20	4,80	4,43	4,12	3,84	3,59	3,37	3,17	2,95	2,76	2,58	2,42	2,28	2,15	2,03	1,92	
		L/300	9,73	9,04	8,17	7,43	6,78	6,19	5,66	5,20	4,80	4,43	4,12	3,84	3,59	3,28	2,94	2,65	2,39	2,17	1,97	1,80	1,64	1,50	1,38	
		L/500	9,73	9,04	8,17	7,43	6,66	5,66	4,84	4,18	3,63	3,18	2,80	2,48	2,20	1,97	1,76	1,59	1,43	1,30	1,18	1,08	0,99	0,90	0,83	
1,50	24,2	*	11,70	10,91	9,88	8,99	8,20	7,48	6,85	6,28	5,80	5,37	4,98	4,64	4,35	4,07	3,83	3,57	3,33	3,12	2,93	2,76	2,60	2,45	2,32	
		L/150	11,70	10,91	9,88	8,99	8,20	7,48	6,85	6,28	5,80	5,37	4,98	4,64	4,35	4,07	3,83	3,57	3,33	3,12	2,93	2,76	2,60	2,45	2,32	
		L/300	11,70	10,91	9,88	8,99	8,20	7,48	6,85	6,28	5,80	5,37	4,98	4,64	4,35	3,96	3,55	3,20	2,89	2,61	2,38	2,17	1,98	1,82	1,67	
		L/500	11,70	10,91	9,88	8,99	8,03	6,83	5,85	5,05	4,38	3,85	3,38	2,99	2,66	2,38	2,13	1,92	1,73	1,57	1,43	1,30	1,19	1,09	1,00	
t _n	g	max f	widths of end-supports: bA = 40 mm; widths between bearings: bB = 60 mm																							
0,75	12,1	*	3,44	3,14	2,88	2,65	2,44	2,26	2,10	1,96	1,83	1,71	1,61	1,51	1,42	1,34	1,27	1,19	1,12	1,04	0,98	0,92	0,87	0,82	0,77	
0,88	14,2	*	4,61	4,20	3,84	3,53	3,25	3,00	2,78	2,59	2,41	2,26	2,11	1,98	1,87	1,76	1,66	1,57	1,48	1,39	1,30	1,23	1,16	1,09	1,03	
1,00	16,1	*	5,97	5,42	4,94	4,53	4,17	3,85	3,56	3,31	3,08	2,88	2,69	2,52	2,37	2,23	2,10	1,98	1,87	1,77	1,68	1,60	1,52	1,44	1,38	
1,25	20,1	*	7,50	6,82	6,22	5,70	5,24	4,84	4,48	4,16	3,88	3,62	3,38	3,17	2,98	2,80	2,64	2,49	2,36	2,23	2,12	2,01	1,91	1,82	1,73	
1,50	24,2	*	9,05	8,22	7,50	6,87	6,32	5,84	5,41	5,02	4,68	4,36	4,08	3,82	3,59	3,38	3,19	3,01	2,84	2,69	2,55	2,42	2,30	2,19	2,09	



Three field beams, permissible uniformly distributed load (UDL) [kN/m²]

span widths [m]		3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,25	5,50	5,75	6,00	6,25	6,50	6,75	7,00	7,25	7,50	7,75	8,00	8,25	8,50	8,75	9,00	
t _n	g	max f	widths of end-supports: bA = 40 mm; widths between bearings: bB ≥ 160 mm																						
0,75	12,1	*	4,15	3,77	3,45	3,25	3,07	2,85	2,60	2,38	2,20	2,03	1,89	1,77	1,67	1,57	1,48	1,40	1,32	1,25	1,19	1,13	1,07	1,02	0,97
		L/150	4,15	3,77	3,45	3,25	3,07	2,85	2,60	2,38	2,20	2,03	1,89	1,77	1,67	1,57	1,48	1,40	1,32	1,25	1,19	1,13	1,07	1,02	0,97
		L/300	4,15	3,77	3,45	3,25	3,07	2,85	2,60	2,38	2,20	2,03	1,89	1,77	1,67	1,52	1,36	1,22	1,10	1,00	0,91	0,83	0,76	0,70	0,64
		L/500	4,15	3,77	3,45	3,25	3,06	2,61	2,24	1,93	1,68	1,47	1,29	1,14	1,02	0,91	0,82	0,73	0,66	0,60	0,55	0,50	0,46	0,42	0,38
0,88	14,2	*	5,88	5,49	5,15	4,70	4,24	3,84	3,51	3,22	2,96	2,74	2,55	2,37	2,22	2,09	1,96	1,85	1,75	1,65	1,56	1,48	1,41	1,34	1,27
		L/150	5,88	5,49	5,15	4,70	4,24	3,84	3,51	3,22	2,96	2,74	2,55	2,37	2,22	2,09	1,96	1,85	1,75	1,65	1,56	1,48	1,41	1,34	1,27
		L/300	5,88	5,49	5,15	4,70	4,24	3,84	3,51	3,22	2,96	2,74	2,55	2,26	2,01	1,79	1,61	1,45	1,31	1,18	1,08	0,98	0,90	0,82	0,76
		L/500	5,88	5,49	5,15	4,29	3,62	3,09	2,65	2,29	1,99	1,74	1,53	1,35	1,20	1,08	0,96	0,87	0,78	0,71	0,65	0,59	0,54	0,49	0,45
1,00	16,1	*	7,72	7,20	6,70	5,97	5,39	4,90	4,47	4,11	3,79	3,51	3,25	3,03	2,84	2,66	2,50	2,35	2,20	2,05	1,93	1,81	1,71	1,61	1,53
		L/150	7,72	7,20	6,70	5,97	5,39	4,90	4,47	4,11	3,79	3,51	3,25	3,03	2,84	2,66	2,50	2,35	2,20	2,05	1,93	1,81	1,71	1,61	1,53
		L/300	7,72	7,20	6,70	5,97	5,39	4,90	4,47	4,11	3,79	3,31	2,91	2,58	2,29	2,05	1,84	1,65	1,49	1,35	1,23	1,12	1,03	0,94	0,86
		L/500	7,72	7,14	5,91	4,90	4,14	3,53	3,03	2,61	2,27	1,99	1,75	1,55	1,38	1,23	1,10	0,99	0,90	0,81	0,74	0,67	0,62	0,56	0,52
1,25	20,1	*	9,73	9,07	8,41	7,53	6,80	6,19	5,66	5,20	4,80	4,44	4,12	3,84	3,59	3,37	3,17	2,95	2,75	2,58	2,42	2,28	2,15	2,03	1,92
		L/150	9,73	9,07	8,41	7,53	6,80	6,19	5,66	5,20	4,80	4,44	4,12	3,84	3,59	3,37	3,17	2,95	2,75	2,58	2,42	2,28	2,15	2,03	1,92
		L/300	9,73	9,07	8,41	7,53	6,80	6,19	5,66	5,20	4,77	4,18	3,67	3,25	2,89	2,58	2,31	2,08	1,88	1,70	1,55	1,41	1,29	1,18	1,09
		L/500	9,73	9,00	7,44	6,17	5,21	4,45	3,82	3,29	2,86	2,51	2,20	1,95	1,73	1,55	1,39	1,25	1,13	1,02	0,93	0,85	0,78	0,71	0,65
1,50	24,2	*	11,70	10,92	10,18	9,12	8,24	7,49	6,84	6,28	5,80	5,37	4,99	4,64	4,35	4,07	3,83	3,57	3,33	3,12	2,93	2,76	2,60	2,45	2,32
		L/150	11,70	10,92	10,18	9,12	8,24	7,49	6,84	6,28	5,80	5,37	4,99	4,64	4,35	4,07	3,83	3,57	3,33	3,12	2,93	2,76	2,60	2,45	2,32
		L/300	11,70	10,92	10,18	9,12	8,24	7,49	6,84	6,28	5,77	5,04	4,44	3,92	3,49	3,12	2,79	2,51	2,27	2,06	1,87	1,71	1,56	1,43	1,31
		L/500	11,70	10,87	8,99	7,45	6,29	5,37	4,61	3,98	3,46	3,03	2,66	2,35	2,09	1,87	1,68	1,51	1,36	1,24	1,12	1,02	0,94	0,86	0,79
t _n	g	max f	widths of end-supports: bA = 40 mm; widths between bearings: bB = 60 mm																						
0,75	12,1	*	3,94	3,68	3,38	3,11	2,88	2,67	2,49	2,32	2,17	2,03	1,87	1,73	1,61	1,50	1,40	1,32	1,24	1,16	1,10	1,04	0,98	0,93	0,88
0,88	14,2	*	5,42	4,94	4,53	4,17	3,84	3,56	3,31	3,08	2,88	2,69	2,49	2,31	2,14	2,00	1,87	1,75	1,64	1,55	1,46	1,38	1,30	1,23	1,16
1,00	16,1	*	7,02	6,39	5,84	5,37	4,95	4,58	4,24	3,95	3,68	3,44	3,18	2,95	2,74	2,56	2,39	2,25	2,11	1,99	1,87	1,76	1,66	1,56	1,48
1,25	20,1	*	8,82	8,04	7,35	6,75	6,22	5,75	5,34	4,97	4,63	4,30	3,97	3,69	3,43	3,20	2,99	2,80	2,64	2,48	2,35	2,21	2,08	1,96	1,86
1,50	24,2	*	10,65	9,69	8,86	8,14	7,50	6,94	6,44	5,99	5,59	5,19	4,79	4,44	4,14	3,85	3,61	3,38	3,18	3,00	2,83	2,67	2,51	2,38	2,22