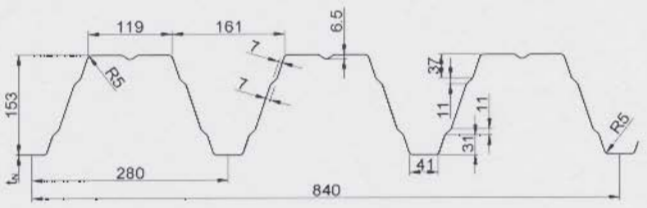
Novotechprom TR150 Position: positive

Trapezoidal corrugated profile type: TR 150

Values of crossection and resitance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"

Position-positive

Measurements in [mm]



Yield strength of steel core fy,k 0 320 N/mm²

Values of cross-section

thickness of plate	deat load	bending [1]		normal force stress						limit of span widths [3]	
				not reduced cross-section			contributive cross-section [2]			L_{gr} [m]	
t_N [mm]	g [kN/m2]	I^+_{ef} [cm⁴/m]	I^-_{ef} [cm⁴/m]	A_g [cm²/m]	i_g [cm]	z_g [cm]	A_{ef} [cm²/m]	i_{ef} [cm]	z_{ef} [cm]	single field beam	multiple field beam
0,75	0,107	377	377	12,5	5,49	8,91	5,26	6,29	8,46	7,75	9,69
0,88	0,126	446	446	14,8	5,49	8,91	7,13	6,24	8,48	10,0	12,5
1,00	0,143	510	510	16,9	5,49	8,91	9,04	6,21	8,51	11,4	14,3
1,25	0,179	642	642	21,3	5,49	8,91	13,6	6,08	8,68	14,4	18,0
1,50	0,215	775	775	25,7	5,49	8,91	18,4	5,96	8,82	17,4	21,7

values of shear field

				zulT_3=G_s/750[kN/m]				zul F_t [7]	
					$G_S=10^4/(K_1+K_2/L_S)$			standartlength a	
t_N [mm]	minL_S [4] [m]	zulT_1 [kN/m]	zulT_2 [kN/m]	L_G [5] [m]	K_1 [m/kN]	K_2 [m²/kN]	K_3 [6] [-]	≥ 130 mm [kN]	≥ 280 mm [kN]
Execution according DIN 18807 part 3, figure 6									
0,75	4,7	1,48	2,06	6,3	0,308	54,9	0,67	9,00	12,0
0,88	4,4	1,90	3,14	5,3	0,260	36,0	0,73	10,6	14,2
1,00	4,1	2,33	4,38	4,7	0,228	25,8	0,78	12,2	16,2
1,25	3,6	3,29	7,81	3,7	0,181	14,5	0,87	15,3	20,5
1,50	3,3	4,36	12,5	3,3	0,150	9,05	0,96	18,5	24,7
Execution according DIN 18807 part 3, figure 7									
0,75	5,0	3,71	1,99	5,2	0,308	33,0	1,04	9,00	12,0
0,88	4,6	4,78	3,03	5,2	0,260	21,7	1,04	10,6	14,2
1,00	4,3	5,84	4,23	5,3	0,228	15,5	1,04	12,2	16,2
1,25	3,8	8,26	7,54	5,5	0,181	8,70	1,04	15,3	20,5
1,50	3,5	11,0	12,1	5,1	0,150	5,44	1,04	18,5	24,7

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

[2] Coefficient width for constant comprehensive strength. $\sigma = f_{y,k}$

[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< minL_S the shear flow have to be reduced.

[5] If shear field lengths L_S > L_G then zulT_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

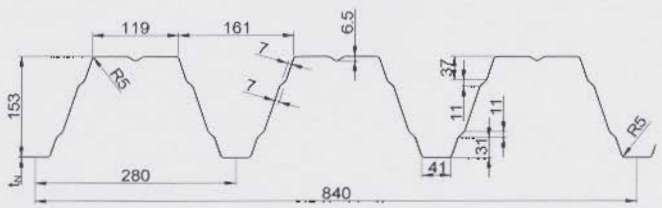
Novotechprom TR150 Position: positive

Trapezoidal corrugated profile type: TR 150

Values of crossection and resitance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"

Position-positive

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	$\frac{\gamma_F \cdot M_{B,S,k}}{M^0_{B,k}/\gamma_M} + \left(\frac{\gamma_F \cdot R_{B,S,k}}{R^0_{B,k}/\gamma_M}\right)^{\varepsilon} \le 1$			intermediate support force	$M_{R,k} = 0$ *für* $L \le \min \ell$ $M_{R,k} = \frac{L - \min \ell}{\max \ell - \min \ell} \cdot \max M_{R,k}$ $M_{R,k} = \max M_{R,k}$ *für* $L \ge \max \ell$		
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,T,k}$ [kN/m]	$R_{A,G,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [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	12,1	8,62	6,59	14,4	19,69	12,5	15,9	5,65	9,85	2,38
0,88	18,0	13,7	10,5	24,3	26,87	16,4	21,7	5,87	11,3	3,58
1,00	23,0	18,5	14,2	30,7	35,24	21,1	28,7	5,93	10,4	4,42
1,25	29,4	27,2	20,8	33,9	58,22	33,9	47,4	5,84	8,06	5,35
1,50	35,5	32,8	25,1	41,0	70,43	41,0	57,2	5,82	8,04	6,46
		[2] [4] b_A+ü ≥ 90 mm		[4] intermediate support width b_B ≥ 160 mm, ε = 2						
0,75	12,1	11,2	8,57	14,1	36,65	12,5	29,7	3,67	9,55	3,81
0,88	18,0	17,8	13,6	20,1	54,25	16,4	44,1	4,03	10,7	4,67
1,00	23,0	24,1	18,4	25,4	71,57	21,1	57,9	4,24	9,94	5,51
1,25	29,4	35,4	27,0	33,5	105,3	33,5	85,7	4,30	7,60	7,36
1,50	35,5	42,7	32,6	40,4	127,8	40,4	103	4,27	7,56	8,88

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, ε =				end-support	[5] intermediate support, ε = 1			
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [kN/m]	maxM$_{B,k}$ [kNm/m]	maxR$_{B,k}$ [kN/m]	$R_{A,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [kN/m]	maxM$_{B,k}$ [kNm/m]	maxR$_{B,k}$ [kN/m]
0,75	11,5	8,62	18,2	33,49	14,9	18,4	4,30	9,10	16,71	7,45	9,18
0,88	15,0	13,7	24,0	52,91	22,3	26,2	6,85	12,0	26,57	11,1	13,1
1,00	19,5	18,5	29,1	71,75	28,4	34,5	9,23	14,6	35,76	14,2	17,2
1,25	33,5	27,2	36,7	104,2	36,2	53,4	13,6	18,4	52,33	18,2	26,7
1,50	40,3	32,8	44,4	125,9	43,9	64,4	16,4	22,1	63,00	21,9	32,1

[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 + Ü = 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 < 10mm , e.g. by pipes, 10 mm can be imserted.

[4] If support width is between the listed values it is allowed to interpole the characteristic values of resistance linear.

[5] Interaction like pictured above. Are there no values for $M^0_{B,k}$ and $R^0_{B,k}$, $\gamma_F \cdot M_{B,S,k} \le \text{maxM}_{B,k} / \gamma_M$ und $\gamma_F \cdot R_{B,S,k} \le \text{maxR}_{B,k} / \gamma_M$ is essencial.

[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.

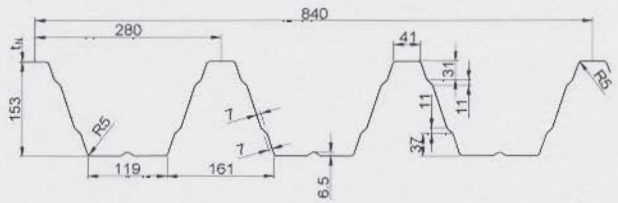
Novotechprom TR150 Position: negative

Trapezoidal corrugated profile type: TR 150

Values of crossection and resitance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"

Position-negative

Measurements in [mm]



Yield strength of steel core fy,k 0 320 N/mm²

Values of cross-section

thickness of plate	deat load	bending [1]		normal force stress						limit of span widths [3]	
				not reduced cross-section			contributive cross-section [2]			L_{gr} [m]	
t_N	g	I^+_{ef}	I^-_{ef}	A_g	i_g	z_g	A_{ef}	i_{ef}	z_{ef}	single field beam	multiple field beam
[mm]	[kN/m2]	[cm⁴/m]	[cm⁴/m]	[cm²/m]	[cm]	[cm]	[cm²/m]	[cm]	[cm]		
0,75	0,107	377	377	12,5	5,49	6,39	5,26	6,29	6,84	6,25	7,81
0,88	0,126	446	446	14,8	5,49	6,39	7,13	6,24	6,82	9,05	11,3
1,00	0,143	510	510	16,9	5,49	6,39	9,04	6,21	6,79	10,3	12,9
1,25	0,179	642	642	21,3	5,49	6,39	13,6	6,08	6,62	13,0	16,3
1,50	0,215	775	775	25,7	5,49	6,39	18,4	5,96	6,48	15,7	19,7

values of shear field

				$zulT_3=G_s/750$[kN/m]				zul F_t [7]	
					$G_S=10^4/(K_1+K_2/L_S)$			standartlength a	
t_N	$minL_S$ [4]	$zulT_1$	$zulT_2$	L_G [5]	K_1	K_2	K_3 [6]	≥ 130 mm	≥ 280 mm
[mm]	[m]	[kN/m]	[kN/m]	[m]	[m/kN]	[m²/kN]	[-]	[kN]	[kN]
Execution according DIN 18807 part 3, figure 6									
0,75	5,1	1,97	1,64	11,3	0,308	88,1	0,35	14,0	14,0
0,88	4,7	2,54	2,50	11,4	0,260	57,9	0,38	16,6	16,6
1,00	4,4	3,10	3,49	10,2	0,288	41,4	0,41	18,9	18,9
1,25	3,9	4,39	6,22	8,1	0,181	23,2	0,46	23,9	23,9
1,50	3,6	5,82	9,95	6,8	0,150	14,5	0,50	28,8	28,8
Execution according DIN 18807 part 3, figure 7									
0,75	2,1	9,94	11,3	2,1	0,308	2,00	1,26	14,0	14,0
0,88	2,0	12,8	17,2	2,0	0,260	1,32	1,26	16,6	16,6
1,00	1,8	15,6	24,0	1,8	0,228	0,942	1,26	18,9	18,9
1,25	1,6	22,1	42,9	1,6	0,181	0,528	1,26	23,9	23,9
1,50	1,5	29,3	68,6	1,5	0,150	0,330	1,26	28,8	28,8

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

[2] Coefficient width for constant comprehensive strength. $\sigma = f_{y,k}$

[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 $L_S < minL_S$ the shear flow have to be reduced.

[5] If shear field lengths $L_S > L_G$ then $zulT_3$ 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

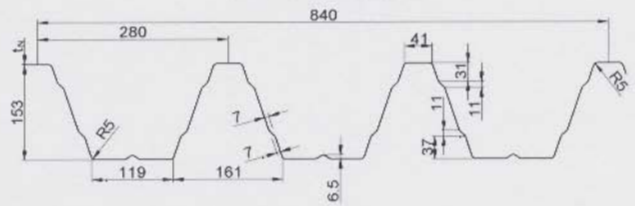
Novotechprom TR150 Position: negative

Trapezoidal corrugated profile type: TR 150

Values of crossection and resitance according DIN 18807 and the "Anpassungsrichtlinie Stahlbau"

Position-negative

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				intermediate support: method of proof P-P		
				interaction bending moment/support force [5]				residual support moment [6]		
		load capacity	usability	$\frac{\gamma_F \cdot M_{B,S,k}}{M^0_{B,k}/\gamma_M} + \left(\frac{\gamma_F \cdot R_{B,S,k}}{R^0_{B,k}/\gamma_M}\right)^{\varepsilon} \le 1$			intermediate support force	$M_{R,k} = 0$ *für* $L \le \min \ell$ $M_{R,k} = \frac{L - \min \ell}{\max \ell - \min \ell} \cdot \max M_{R,k}$ $M_{R,k} = \max M_{R,k}$ *für* $L \ge \max \ell$		
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,T,k}$ [kN/m]	$R_{A,G,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [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	11,5	8,62	6,59	12,9	20,01	12,9	16,2	5,12	8,52	2,94
0,88	15,0	13,7	10,5	19,6	28,42	19,6	23,1	4,61	7,26	3,90
1,00	19,5	18,5	14,2	24,7	37,42	24,7	30,5	4,73	7,19	4,67
1,25	33,5	27,2	20,8	30,5	57,99	30,5	47,1	5,68	8,17	5,93
1,50	40,3	32,8	25,1	36,7	70,27	36,7	56,9	5,65	8,14	7,17
		[2] [4] b_A+ü ≥ 90 mm		[4] intermediate support width b_B ≥ 160 mm, ε = 2						
0,75	11,5	11,2	8,57	16,1	29,57	13,1	23,9	3,67	6,27	3,80
0,88	15,0	17,8	13,6	21,1	46,85	19,6	38,0	3,23	5,81	5,32
1,00	19,5	24,1	18,4	25,7	63,37	25,1	51,2	3,28	5,83	6,38
1,25	33,5	35,4	27,0	32,4	92,21	32,0	74,8	4,13	6,58	7,53
1,50	40,3	42,7	32,6	39,2	111,4	38,7	90,3	4,14	6,60	9,10

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, ε =				end-support	[5] intermediate support, ε = 1			
t_N [mm]	$M_{F,k}$ [kNm/m]	$R_{A,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [kN/m]	maxM$_{B,k}$ [kNm/m]	maxR$_{B,k}$ [kN/m]	$R_{A,k}$ [kN/m]	$M^0_{B,k}$ [kNm/m]	$R^0_{B,k}$ [kN/m]	maxM$_{B,k}$ [kNm/m]	maxR$_{B,k}$ [kN/m]
0,75	12,1	8,62	15,9	41,47	14,2	18,0	4,30	7,97	20,75	7,09	9,04
0,88	18,0	13,7	22,8	61,60	18,5	24,6	6,85	11,4	30,83	9,25	12,3
1,00	23,0	18,5	28,7	80,89	24,0	32,5	9,23	14,4	40,60	12,0	16,2
1,25	29,4	27,2	37,9	119,4	37,9	53,7	13,6	19,0	60,15	19,0	26,9
1,50	35,5	32,8	45,7	144,7	45,7	64,8	16,4	23,0	72,42	23,0	32,5

[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 + Ü = 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 < 10mm , e.g. by pipes, 10 mm can be imserted.

[4] If support width is between the listed values it is allowed to interpole the characteristic values of resistance linear.

[5] Interaction like pictured above. Are there no values for $M^0_{B,k}$ and $R^0_{B,k}$, $\gamma_F \cdot M_{B,S,k} \le \text{maxM}_{B,k} / \gamma_M$ und $\gamma_F \cdot R_{B,S,k} \le \text{maxR}_{B,k} / \gamma_M$ is essencial.

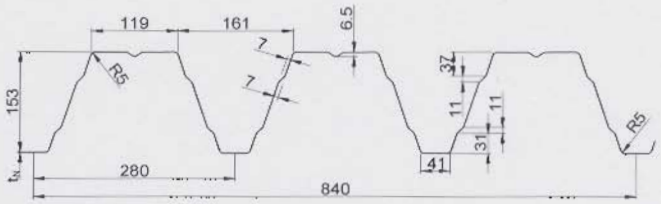
[6] L = smaller of adjacent pitches. Are there no values for remaining pitch-moments, for structural safety certificate $M_{R,k}$ = 0 or or certificate according to elastic-elastic operation.

Novotechprom TR150 Position: positive

Stress-table for an evenly distributed load

Table of profile in positive position

Measurements in [mm]



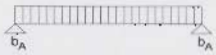
The trapezoidal corrugated profile as component is for individual persons only walkable across load distributioning arrangements (e.g. timber planks). An accordant advice had to be made on laying plan.

Line *: Maximum permissible stress without limitations by deflection.

Line L/....: Permissible stress under additional limitation by deflection – max f ≤ 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 [kN/m²] had been determined according to regulations of DIN 18807 and the adaptation guideline for structural steelwork.

Particularly at multyple field beams the maximum supply length schould be considered.

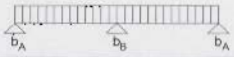


Single fiel beams, permissible uniformly distributed load (UDL) [kN/m²]

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

Novotechprom TR150 Position: positive

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



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

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

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