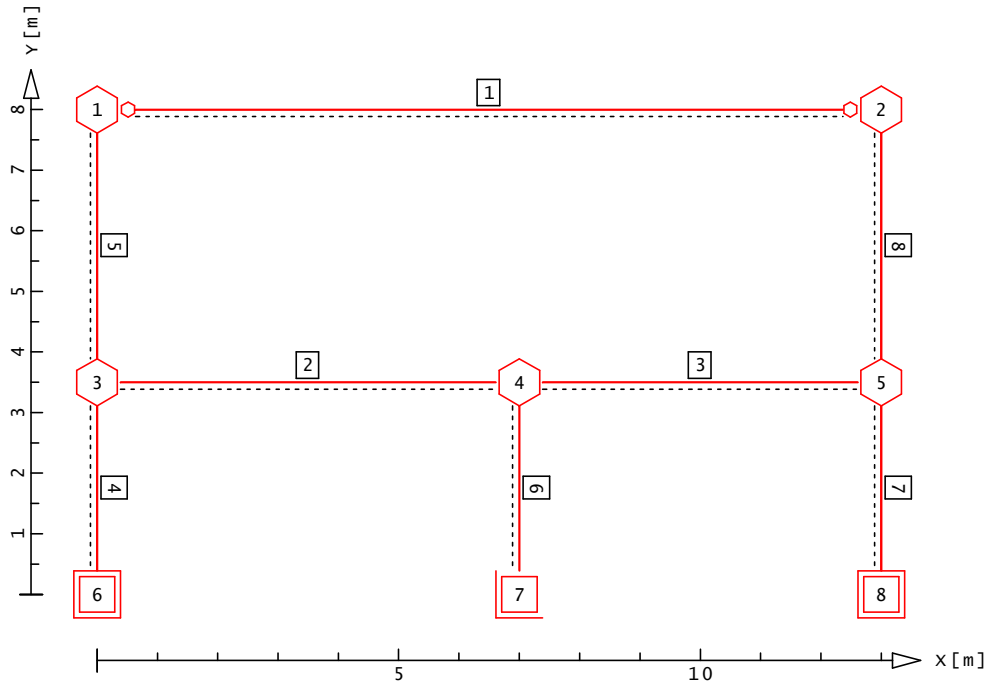
Pos. B615 Stabwerk Stb.-Bemessung DIN 1045

System
M 1:125



Knotenbeschreibung

Knoten	X [m]	Y [m]	Knoten	X [m]	Y [m]
1	0.00	8.00	2	13.00	8.00
3	0.00	3.50	4	7.00	3.50
5	13.00	3.50	6 XYR	0.00	0.00
7 XY	7.00	0.00	8 XYR	13.00	0.00

Festhaltung: X=horizontal Y=vertikal R=Drehung

Stabbeschreibung

St	von Knoten	bis Knoten	I [cm4]	A [cm2]	h [mm]	Mnr
1	1 M	2 M	8.6e+006	7200		1
2	3	4	4.7e+006	8600		1
3	4	5	4.3e+006	7600		1
4	3	6	720000	2400		1
5	1	3	720000	2400		1
6	4	7	720000	2400		1
7	5	8	720000	2400		1
8	2	5	720000	2400		1

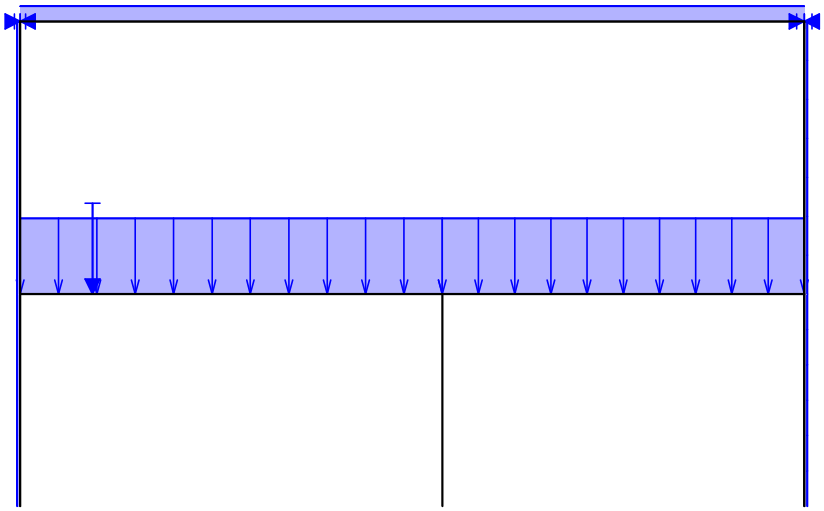
N=Normalkraft-, Q=Querkraft-, M=Momentengelenk

Materialwerte

Elastizitätsmodul	E	= 30000	MN/m2
Temperaturdehnzahl	aT	= 1.0e-005	1/K

Belastung

Bild 1 Lastfall 1+2+3
M 1:125



Lf	Lastart	St	K	R	sl/a [m]	sr/s [m]	q li/Q [kN/m,kN]	q re/M [kN/m,kNm]
1	Gleichlast	1		Y			48.00	48.00
		2		Y			240.00	240.00
		3		Y			240.00	240.00
	Einzellast	2		Y	1.20		66.00	
2	Gleichlast	4		X			20.40	20.40
		5		X			20.40	20.40
		7		X			10.50	10.50
		8		X			10.50	10.50
	Einzellast		1	X			4.00	
			2	X			5.60	
3	Gleichlast	4		X			-10.50	-10.50
		5		X			-10.50	-10.50
		7		X			-20.40	-20.40
		8		X			-20.40	-20.40
	Einzellast		1	X			-4.00	
			2	X			-5.60	

Kombinationen

Lk	Art	Bemerkung
1	Min/Max	
2	Min/Max	

Lastkombinationsfaktoren

Lk	*LF 1	LF 2	LF 3	LF 4	LF 5	LF 6
1	1.00	1.50				
2	1.00		1.50			
3	1.00	1.00				
4	1.00		1.00			

* = Lastfall ständig vorhanden

Schnittgrößen
Lastfall 1

Stab	x [m]	N [kN]	Q [kN]	M [kNm]
1	0.00	-25.22	312.00	0.00
	2.60	-25.22	187.20	648.96
	5.20	-25.22	62.40	973.44
	6.50	-25.22	0.00	1014.00
	7.80	-25.22	-62.40	973.44
	10.40	-25.22	-187.20	648.96
	13.00	-25.22	-312.00	0.00
2	0.00	-66.84	780.41	-340.65
	1.20	-66.84	492.41	423.03
	1.20	-66.84	426.41	423.03
	1.40	-66.84	378.41	503.52
	2.80	-66.84	42.41	798.09
	2.98	-66.84	0.00	801.83
	4.20	-66.84	-293.59	622.26
	5.60	-66.84	-629.59	-23.97
	7.00	-66.84	-965.59	-1140.60
3	0.00	-47.27	853.46	-1072.10
	1.20	-47.27	565.46	-220.75
	2.40	-47.27	277.46	285.01
	3.56	-47.27	0.00	445.39
	3.60	-47.27	-10.54	445.16
	4.80	-47.27	-298.54	259.72
	6.00	-47.27	-586.54	-271.33
4	0.00	-1092.41	-92.06	227.17
	0.70	-1092.41	-92.06	162.73
	1.40	-1092.41	-92.06	98.29
	2.10	-1092.41	-92.06	33.85
	2.80	-1092.41	-92.06	-30.59
	3.50	-1092.41	-92.06	-95.03
5	0.00	-312.00	-25.22	0.00
	0.90	-312.00	-25.22	-22.70
	1.80	-312.00	-25.22	-45.39
	2.70	-312.00	-25.22	-68.09
	3.60	-312.00	-25.22	-90.79
	4.50	-312.00	-25.22	-113.49
6	0.00	-1819.05	19.57	-68.50
	0.70	-1819.05	19.57	-54.80
	1.40	-1819.05	19.57	-41.10
	2.10	-1819.05	19.57	-27.40
	2.80	-1819.05	19.57	-13.70
	3.50	-1819.05	19.57	0.00
7	0.00	-898.54	72.49	-157.84

Stab	x [m]	N [kN]	Q [kN]	M [kNm]
	0.70	-898.54	72.49	-107.10
	1.40	-898.54	72.49	-56.36
	2.10	-898.54	72.49	-5.62
	2.80	-898.54	72.49	45.12
	3.50	-898.54	72.49	95.86
8	0.00	-312.00	25.22	0.00
	0.90	-312.00	25.22	22.70
	1.80	-312.00	25.22	45.39
	2.70	-312.00	25.22	68.09
	3.60	-312.00	25.22	90.79
	4.50	-312.00	25.22	113.49

Extreme Feldmomente sind fett gedruckt

Verformungen
Lastfall 1

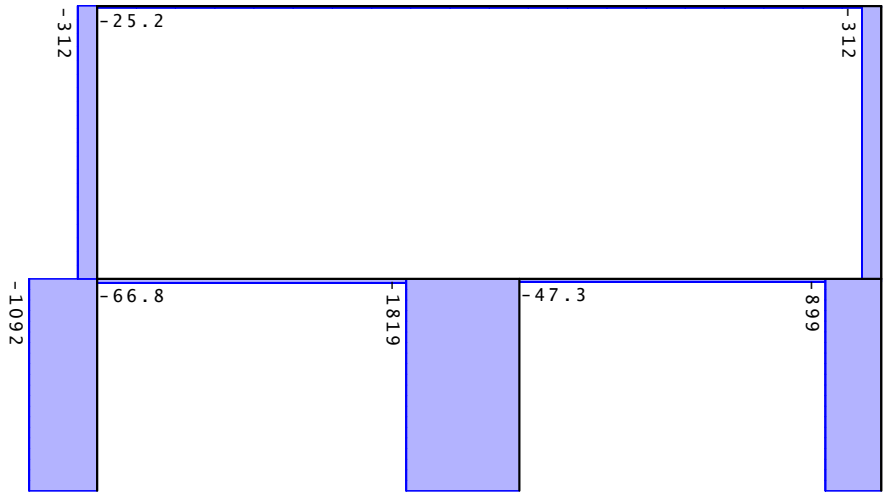
K	x [cm]	y [cm]	r [rad]
1	0.1621708	-0.0726031	0.000111596
2	0.1606530	-0.0631789	-0.000679916
3	0.0350687	-0.0531031	-0.001070540
4	0.0332553	-0.0884263	0.000274993
5	0.0320114	-0.0436789	0.000502220
6	-0.0000000	-0.0000000	0.000000000
7	0.0000000	-0.0000000	-0.000280019
8	0.0000000	-0.0000000	-0.000000000

vorgegebene Verschiebungen sind enthalten

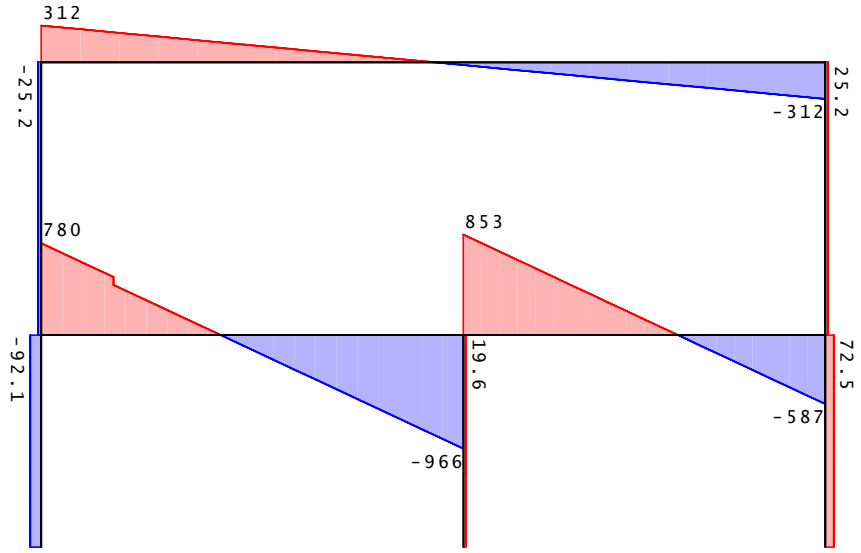
Auflagerkräfte
Lastfall 1

K	X [kN]	Y [kN]	M [kNm]
6	92.06	1092.41	-95.03
7	-19.57	1819.05	0.00
8	-72.49	898.54	95.86

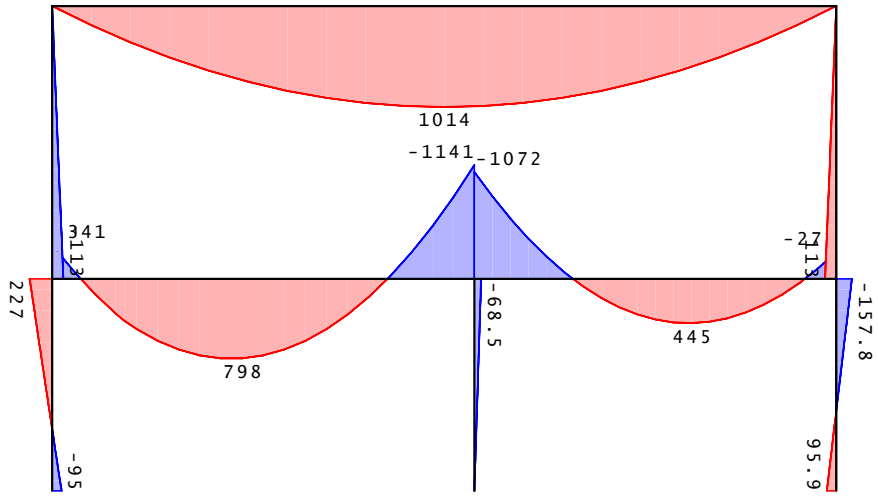
Normalkraft (kN) Lastfall 1
M 1:125



Querkraft (kN) Lastfall 1
M 1:125



Biegemoment (kNm) Lastfall 1
M 1:125



Schnittgrößen Lastkombination 1

Stab	x [m]	Maximalwerte N [kN]	Q [kN]	M [kNm]	Minimalwerte N [kN]	Q [kN]	M [kNm]
1	0.00	-25.22	312.00	0.00	-37.13	312.00	0.00
	2.60	-25.22	187.20	648.96	-37.13	187.20	648.96
	5.20	-25.22	62.40	973.44	-37.13	62.40	973.44
	6.50	-37.13	0.00	1014.00			
	6.50				-37.13	0.00	1014.00
	7.80	-25.22	-62.40	973.44	-37.13	-62.40	973.44
	10.40	-25.22	-187.20	648.96	-37.13	-187.20	648.96
	13.00	-25.22	-312.00	0.00	-37.13	-312.00	0.00
2	0.00	-66.84	780.41	87.57	-129.46	704.27	-340.65
	1.20	-66.84	492.41	759.89	-129.46	416.27	423.03
	1.20	-66.84	426.41	759.89	-129.46	350.27	423.03
	1.40	-66.84	378.41	825.14	-129.46	302.27	503.52
	2.66	-129.46	0.00	1015.49			
	2.80	-66.84	42.41	1013.12	-129.46	-33.73	798.09
	2.98				-66.84	0.00	801.83
	4.20	-66.84	-293.59	730.69	-129.46	-369.73	622.26
	5.60	-66.84	-629.59	-22.14	-129.46	-705.73	-23.97
	7.00	-66.84	-965.59	-1140.60	-129.46	-1041.73	-1245.37
3	0.00	-47.27	853.46	-980.12	-53.68	768.57	-1072.10
	1.20	-47.27	565.46	-220.75	-53.68	480.57	-230.65
	2.40	-47.27	277.46	285.01	-53.68	192.57	173.23
	3.20				-53.68	0.00	250.49
	3.56	-47.27	0.00	445.39			
	3.60	-47.27	-10.54	445.16	-53.68	-95.43	231.51

Stab	x	Maximalwerte N	Q	M	Minimalwerte N	Q	M
	[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]
	4.80	-47.27	-298.54	259.72	-53.68	-383.43	-55.81
	6.00	-47.27	-586.54	-271.33	-53.68	-671.43	-688.73
4	0.00	-1016.27	-22.89	227.17	-1092.41	-92.06	82.17
	0.70	-1016.27	-1.47	162.73	-1092.41	-92.06	73.64
	0.75				-1016.27	0.00	73.60
	1.40	-1016.27	19.95	98.29	-1092.41	-92.06	80.10
	2.10	-1016.27	41.37	101.56	-1092.41	-92.06	33.85
	2.80	-1016.27	62.79	138.02	-1092.41	-92.06	-30.59
	3.50	-1016.27	84.21	189.46	-1092.41	-92.06	-95.03
5	0.00	-312.00	-25.22	0.00	-312.00	-31.13	0.00
	0.90	-312.00	-3.59	-15.62	-312.00	-25.22	-22.70
	1.02	-312.00	0.00	-15.84			
	1.80	-312.00	23.95	-6.46	-312.00	-25.22	-45.39
	2.70	-312.00	51.49	27.48	-312.00	-25.22	-68.09
	3.60	-312.00	79.03	86.22	-312.00	-25.22	-90.79
	4.50	-312.00	106.57	169.74	-312.00	-25.22	-113.49
6	0.00	-1810.30	75.78	-68.50	-1819.05	19.57	-265.24
	0.70	-1810.30	75.78	-54.80	-1819.05	19.57	-212.19
	1.40	-1810.30	75.78	-41.10	-1819.05	19.57	-159.14
	2.10	-1810.30	75.78	-27.40	-1819.05	19.57	-106.10
	2.80	-1810.30	75.78	-13.70	-1819.05	19.57	-53.05
	3.50	-1810.30	75.78	0.00	-1819.05	19.57	0.00
7	0.00	-898.54	170.09	-157.84	-983.43	72.49	-324.38
	0.70	-898.54	181.11	-107.10	-983.43	72.49	-201.46
	1.40	-898.54	192.14	-56.36	-983.43	72.49	-70.82
	2.10	-898.54	203.16	67.53	-983.43	72.49	-5.62
	2.80	-898.54	214.19	213.60	-983.43	72.49	45.12
	3.50	-898.54	225.21	367.39	-983.43	72.49	95.86
8	0.00	-312.00	45.53	0.00	-312.00	25.22	0.00
	0.90	-312.00	59.71	47.36	-312.00	25.22	22.70
	1.80	-312.00	73.88	107.47	-312.00	25.22	45.39
	2.70	-312.00	88.06	180.34	-312.00	25.22	68.09
	3.60	-312.00	102.23	265.97	-312.00	25.22	90.79
	4.50	-312.00	116.41	364.36	-312.00	25.22	113.49

Extreme Feldmomente sind fett gedruckt

Verformungen Lastkombination 1

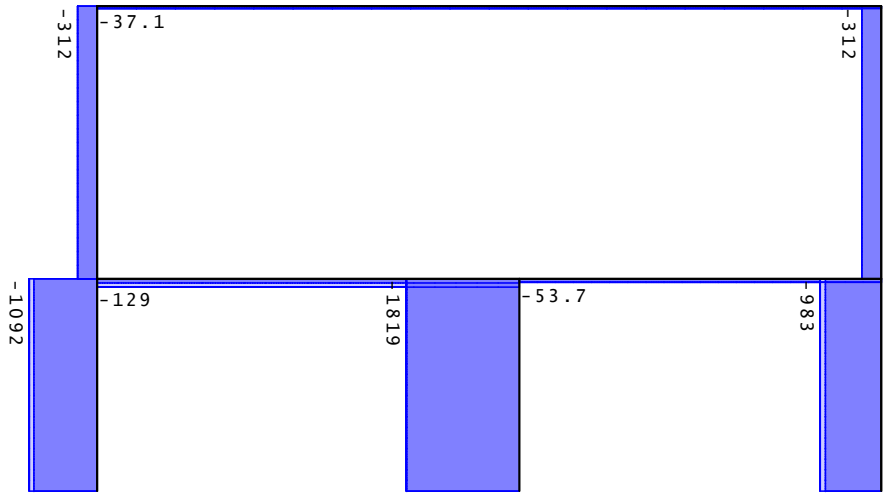
K	x	Maximalwerte y	r	x	Minimalwerte y	r
	[cm]	[cm]	[rad]	[cm]	[cm]	[rad]
1	1.398	-0.069	0.00011	0.162	-0.073	-0.00239
2	1.396	-0.063	-0.00068	0.161	-0.067	-0.00333
3	0.347	-0.049	-0.00107	0.035	-0.053	-0.00169
4	0.344	-0.088	0.00045	0.033	-0.088	0.00027
5	0.342	-0.044	0.00050	0.032	-0.048	-0.00009
6	0.000	0.000	0.00000	0.000	0.000	0.00000
7	0.000	0.000	-0.00028	0.000	0.000	-0.00170
8	0.000	0.000	0.00000	0.000	0.000	0.00000

vorgegebene Verschiebungen sind enthalten

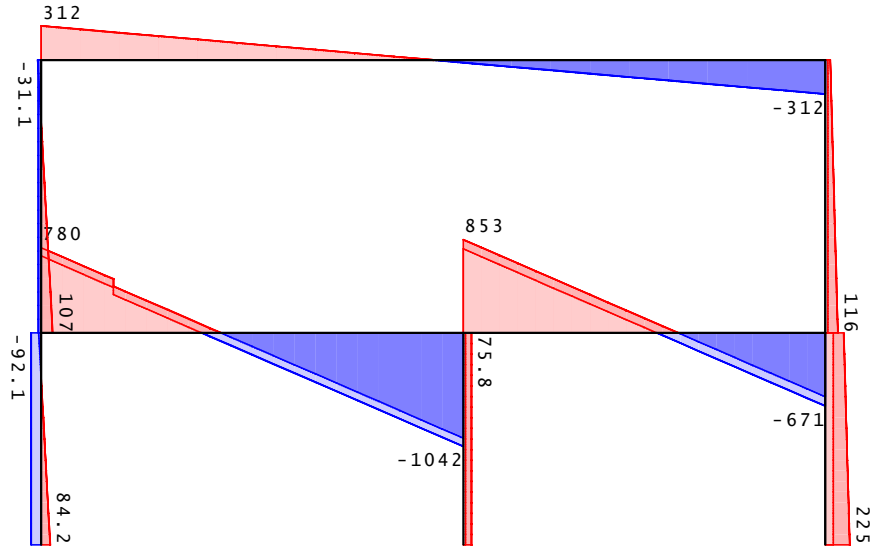
Auflagerkräfte Lastkombination 1

K	Maximalwerte X [kN]	Maximalwerte Y [kN]	Maximalwerte M [kNm]	Minimalwerte X [kN]	Minimalwerte Y [kN]	Minimalwerte M [kNm]
6	92.06	1092.41	189.46	-84.21	1016.27	-95.03
7	-19.57	1819.05	0.00	-75.78	1810.30	0.00
8	-72.49	983.43	367.39	-225.21	898.54	95.86

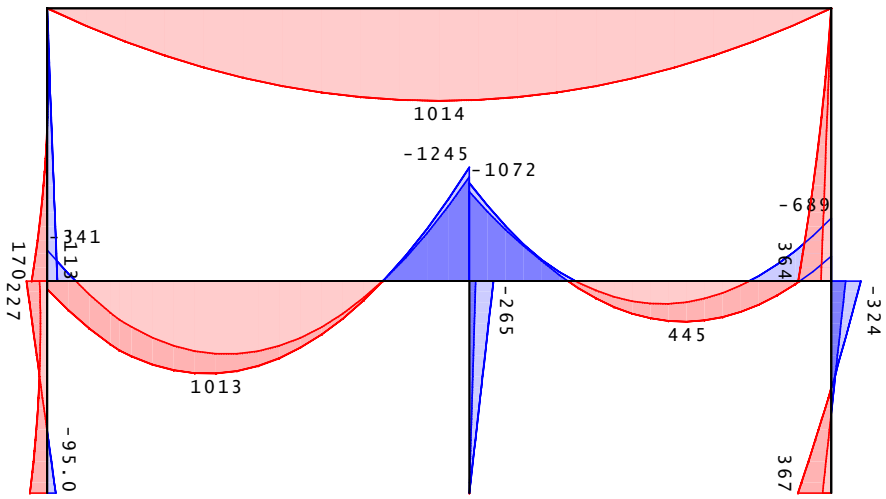
Normalkraft (kN) Lastkombination 1
M 1:125



Querkraft (kN) Lastkombination 1
M 1:125



Biegemoment (kNm) Lastkombination 1
M 1:125



Schnittgrößen Lastkombination 2

Stab	x	Maximalwerte N	Q	M	Minimalwerte N	Q	M
	[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]
1	0.00	-25.22	312.00	0.00	-39.10	312.00	0.00
	2.60	-25.22	187.20	648.96	-39.10	187.20	648.96
	5.20	-25.22	62.40	973.44	-39.10	62.40	973.44
	6.50	-39.10	0.00	1014.00			
	6.50				-39.10	0.00	1014.00
	7.80	-25.22	-62.40	973.44	-39.10	-62.40	973.44
	10.40	-25.22	-187.20	648.96	-39.10	-187.20	648.96
	13.00	-25.22	-312.00	0.00	-39.10	-312.00	0.00
2	0.00	-66.84	853.20	-340.65	-72.31	780.41	-752.91
	1.20	-66.84	565.20	423.03	-72.31	492.41	98.12
	1.20	-66.84	499.20	423.03	-72.31	426.41	98.12
	1.40	-66.84	451.20	503.52	-72.31	378.41	193.16
	2.80	-66.84	115.20	798.09	-72.31	42.41	589.64
	2.98	-66.84	0.00	801.83			
	3.28				-72.31	0.00	617.28
	4.20	-66.84	-220.80	622.26	-72.31	-293.59	515.71
	5.60	-66.84	-556.80	-23.97	-72.31	-629.59	-28.62
	7.00	-66.84	-892.80	-1043.34	-72.31	-965.59	-1140.60
3	0.00	-47.27	942.27	-1072.10	-108.94	853.46	-1171.55
	1.20	-47.27	654.27	-213.62	-108.94	565.46	-220.75
	2.40	-47.27	366.27	398.71	-108.94	277.46	285.01
	3.56				-47.27	0.00	445.39
	3.60	-47.27	78.27	665.44	-108.94	-10.54	445.16
	3.93	-108.94	0.00	678.20			
	4.80	-47.27	-209.73	586.57	-108.94	-298.54	259.72
	6.00	-47.27	-497.73	162.10	-108.94	-586.54	-271.33
4	0.00	-1092.41	-92.06	390.50	-1165.20	-188.29	227.17
	0.70	-1092.41	-92.06	254.84	-1165.20	-199.31	162.73
	1.40	-1092.41	-92.06	111.47	-1165.20	-210.34	98.29
	2.10	-1092.41	-92.06	33.85	-1165.20	-221.36	-39.63
	2.80	-1092.41	-92.06	-30.59	-1165.20	-232.39	-198.44
	3.50	-1092.41	-92.06	-95.03	-1165.20	-243.41	-364.97
5	0.00	-312.00	-25.22	0.00	-312.00	-45.10	0.00
	0.90	-312.00	-25.22	-22.70	-312.00	-59.27	-46.97
	1.80	-312.00	-25.22	-45.39	-312.00	-73.45	-106.69
	2.70	-312.00	-25.22	-68.09	-312.00	-87.62	-179.17
	3.60	-312.00	-25.22	-90.79	-312.00	-101.80	-264.41
	4.50	-312.00	-25.22	-113.49	-312.00	-115.97	-362.41
6	0.00	-1819.05	19.57	128.21	-1835.08	-36.63	-68.50
	0.70	-1819.05	19.57	102.57	-1835.08	-36.63	-54.80
	1.40	-1819.05	19.57	76.92	-1835.08	-36.63	-41.10
	2.10	-1819.05	19.57	51.28	-1835.08	-36.63	-27.40
	2.80	-1819.05	19.57	25.64	-1835.08	-36.63	-13.70
	3.50	-1819.05	19.57	0.00	-1835.08	-36.63	0.00
7	0.00	-809.73	72.49	-9.59	-898.54	1.94	-157.84
	0.06	-809.73	0.00	-9.52			
	0.70	-809.73	72.49	-15.72	-898.54	-19.48	-107.10
	1.40	-809.73	72.49	-36.86	-898.54	-40.90	-56.36
	2.10	-809.73	72.49	-5.62	-898.54	-62.32	-72.98
	2.80	-809.73	72.49	45.12	-898.54	-83.74	-124.10
	3.50	-809.73	72.49	95.86	-898.54	-105.16	-190.22
8	0.00	-312.00	30.70	0.00	-312.00	25.22	0.00
	0.90	-312.00	25.22	22.70	-312.00	3.16	15.24
	1.00				-312.00	0.00	15.40

Stab	Maximalwerte			Minimalwerte		
x	N	Q	M	N	Q	M
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]
1.80	-312.00	25.22	45.39	-312.00	-24.38	5.68
2.70	-312.00	25.22	68.09	-312.00	-51.92	-28.65
3.60	-312.00	25.22	90.79	-312.00	-79.46	-87.78
4.50	-312.00	25.22	113.49	-312.00	-107.00	-171.68

Extreme Feldmomente sind fett gedruckt

Verformungen Lastkombination 2

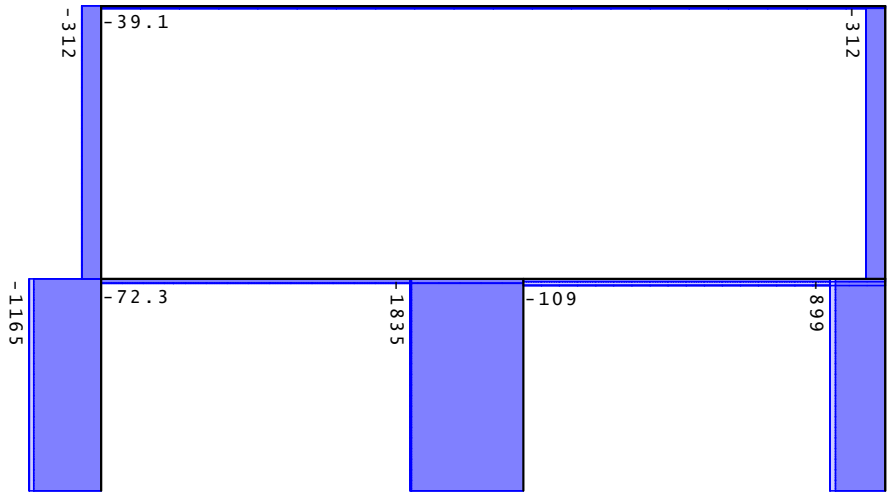
K	Maximalwerte			Minimalwerte		
	x	y	r	x	y	r
	[cm]	[cm]	[rad]	[cm]	[cm]	[rad]
1	0.162	-0.073	0.00275	-1.073	-0.076	0.00011
2	0.161	-0.059	0.00183	-1.075	-0.063	-0.00068
3	0.035	-0.053	-0.00047	-0.275	-0.057	-0.00107
4	0.033	-0.088	0.00027	-0.277	-0.089	0.00010
5	0.032	-0.039	0.00111	-0.280	-0.044	0.00050
6	0.000	0.000	0.00000	0.000	0.000	0.00000
7	0.000	0.000	0.00114	0.000	0.000	-0.00028
8	0.000	0.000	0.00000	0.000	0.000	0.00000

vorgegebene Verschiebungen sind enthalten

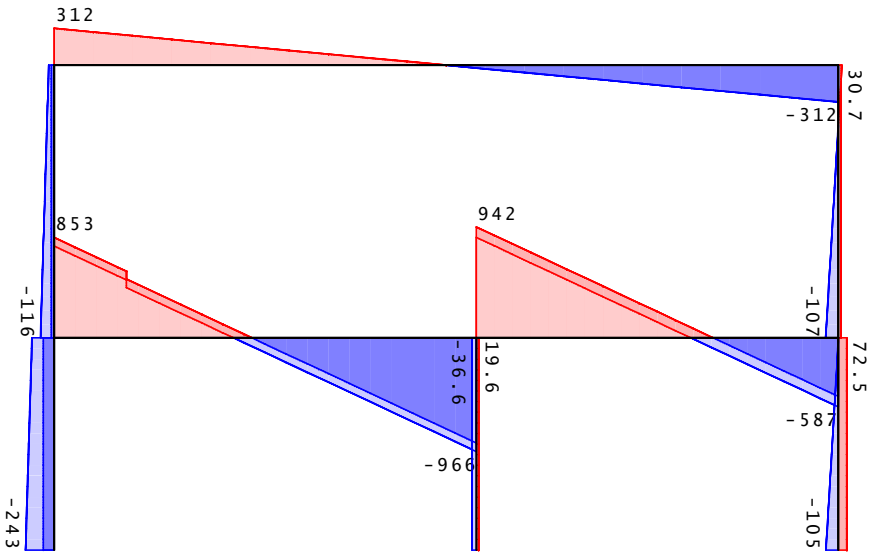
Auflagerkräfte Lastkombination 2

K	Maximalwerte			Minimalwerte		
	X	Y	M	X	Y	M
	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]
6	243.41	1165.20	-95.03	92.06	1092.41	-364.97
7	36.63	1835.08	0.00	-19.57	1819.05	0.00
8	105.16	898.54	95.86	-72.49	809.73	-190.22

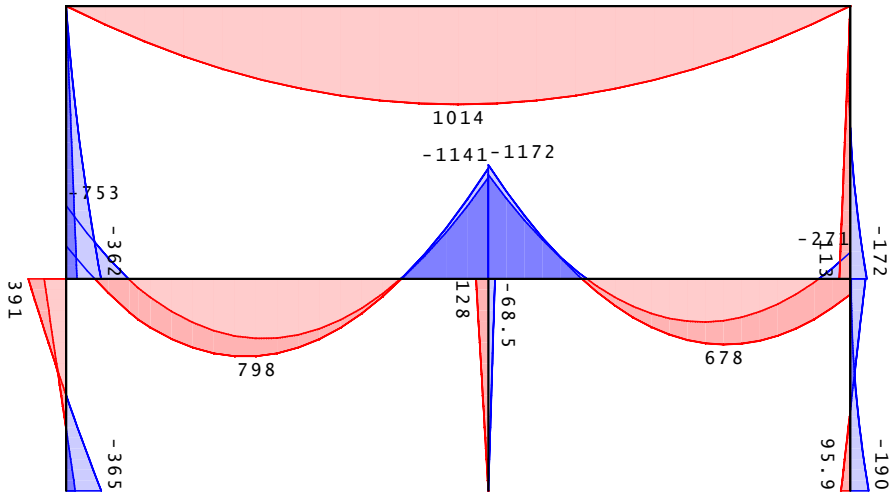
Normalkraft (kN) Lastkombination 2
M 1:125



Querkraft (kN) Lastkombination 2
M 1:125



Biegemoment (kNm) Lastkombination 2
M 1:125



Schnittgrößen Extremwerte aller Lastkombinationen

Stab	x [m]	Maximalwerte N [kN]	Q [kN]	M [kNm]	Minimalwerte N [kN]	Q [kN]	M [kNm]
1	0.00	-25.22	312.00	0.00	-39.10	312.00	0.00
		-39.10	312.00	0.00	-39.10	312.00	0.00
	2.60	-25.22	187.20	648.96	-39.10	187.20	648.96
		-39.10	187.20	648.96	-39.10	187.20	648.96
	5.20	-25.22	62.40	973.44	-39.10	62.40	973.44
		-39.10	62.40	973.44	-39.10	62.40	973.44
	6.50	-39.10	0.00	1014.00			
	6.50				-39.10	0.00	1014.00
	7.80	-25.22	-62.40	973.44	-39.10	-62.40	973.44
		-39.10	-62.40	973.44	-39.10	-62.40	973.44
	10.40	-25.22	-187.20	648.96	-39.10	-187.20	648.96
		-39.10	-187.20	648.96	-39.10	-187.20	648.96
	13.00	-25.22	-312.00	0.00	-39.10	-312.00	0.00
		-39.10	-312.00	0.00	-39.10	-312.00	0.00
2	0.00	-66.84	780.41	-340.65	-129.46	704.27	87.57
		-72.31	853.20	-752.91	-129.46	704.27	87.57
		-129.46	704.27	87.57	-72.31	853.20	-752.91

Stab		Maximalwerte			Minimalwerte		
	x [m]	N [kN]	Q [kN]	M [kNm]	N [kN]	Q [kN]	M [kNm]
	1.20	-66.84	492.41	423.03	-129.46	416.27	759.89
		-72.31	565.20	98.12	-129.46	416.27	759.89
		-129.46	416.27	759.89	-72.31	565.20	98.12
	1.20	-66.84	426.41	423.03	-129.46	350.27	759.89
		-72.31	499.20	98.12	-129.46	350.27	759.89
		-129.46	350.27	759.89	-72.31	499.20	98.12
	1.40	-66.84	378.41	503.52	-129.46	302.27	825.14
		-72.31	451.20	193.16	-129.46	302.27	825.14
		-129.46	302.27	825.14	-72.31	451.20	193.16
	2.66	-129.46	0.00	1015.49			
	2.80	-66.84	42.41	798.09	-129.46	-33.73	1013.12
		-72.31	115.20	589.64	-129.46	-33.73	1013.12
		-129.46	-33.73	1013.12	-72.31	115.20	589.64
	3.28				-72.31	0.00	617.28
	4.20	-66.84	-293.59	622.26	-129.46	-369.73	730.69
		-72.31	-220.80	515.71	-129.46	-369.73	730.69
		-129.46	-369.73	730.69	-72.31	-220.80	515.71
	5.60	-66.84	-629.59	-23.97	-129.46	-705.73	-22.14
		-72.31	-556.80	-28.62	-129.46	-705.73	-22.14
		-129.46	-705.73	-22.14	-72.31	-556.80	-28.62
	7.00	-66.84	-965.59	-1140.60	-129.46	-1041.73	-1245.37
		-72.31	-892.80	-1043.34	-129.46	-1041.73	-1245.37
3	0.00	-47.27	853.46	-1072.10	-108.94	942.27	-1171.55
		-108.94	942.27	-1171.55	-53.68	768.57	-980.12
		-53.68	768.57	-980.12	-108.94	942.27	-1171.55
	1.20	-47.27	565.46	-220.75	-108.94	654.27	-213.62
		-108.94	654.27	-213.62	-53.68	480.57	-230.65
	2.40	-47.27	277.46	285.01	-108.94	366.27	398.71
		-108.94	366.27	398.71	-53.68	192.57	173.23
	3.20				-53.68	0.00	250.49
	3.60	-47.27	-10.54	445.16	-108.94	78.27	665.44
		-108.94	78.27	665.44	-53.68	-95.43	231.51
	3.93	-108.94	0.00	678.20			
	4.80	-47.27	-298.54	259.72	-108.94	-209.73	586.57
		-108.94	-209.73	586.57	-53.68	-383.43	-55.81
	6.00	-47.27	-586.54	-271.33	-108.94	-497.73	162.10
		-108.94	-497.73	162.10	-53.68	-671.43	-688.73
4	0.00	-1016.27	-22.89	82.17	-1165.20	-188.29	390.50
		-1165.20	-188.29	390.50	-1016.27	-22.89	82.17
	0.70	-1016.27	-1.47	73.64	-1165.20	-199.31	254.84
		-1165.20	-199.31	254.84	-1016.27	-1.47	73.64

Stab	x	Maximalwerte N	Q	M	Minimalwerte N	Q	M
	[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	[kNm]
	0.75				-1016.27	0.00	73.60
	1.40	-1016.27	19.95	80.10	-1165.20	-210.34	111.47
		-1165.20	-210.34	111.47	-1016.27	19.95	80.10
	2.10	-1016.27	41.37	101.56	-1165.20	-221.36	-39.63
	2.80	-1016.27	62.79	138.02	-1165.20	-232.39	-198.44
	3.50	-1016.27	84.21	189.46	-1165.20	-243.41	-364.97
5	0.00	-312.00	-45.10	0.00	-312.00	-45.10	0.00
		-312.00	-25.22	0.00	-312.00	-45.10	0.00
	0.90	-312.00	-59.27	-46.97	-312.00	-59.27	-46.97
		-312.00	-3.59	-15.62	-312.00	-59.27	-46.97
	1.02	-312.00	0.00	-15.84			
	1.80	-312.00	-73.45	-106.69	-312.00	-73.45	-106.69
		-312.00	23.95	-6.46	-312.00	-73.45	-106.69
	2.70	-312.00	-87.62	-179.17	-312.00	-87.62	-179.17
		-312.00	51.49	27.48	-312.00	-87.62	-179.17
	3.60	-312.00	-101.80	-264.41	-312.00	-101.80	-264.41
		-312.00	79.03	86.22	-312.00	-101.80	-264.41
	4.50	-312.00	-115.97	-362.41	-312.00	-115.97	-362.41
		-312.00	106.57	169.74	-312.00	-115.97	-362.41
6	0.00	-1810.30	75.78	-265.24	-1835.08	-36.63	128.21
		-1835.08	-36.63	128.21	-1810.30	75.78	-265.24
	0.70	-1810.30	75.78	-212.19	-1835.08	-36.63	102.57
		-1835.08	-36.63	102.57	-1810.30	75.78	-212.19
	1.40	-1810.30	75.78	-159.14	-1835.08	-36.63	76.92
		-1835.08	-36.63	76.92	-1810.30	75.78	-159.14
	2.10	-1810.30	75.78	-106.10	-1835.08	-36.63	51.28
		-1835.08	-36.63	51.28	-1810.30	75.78	-106.10
	2.80	-1810.30	75.78	-53.05	-1835.08	-36.63	25.64
		-1835.08	-36.63	25.64	-1810.30	75.78	-53.05
	3.50	-1810.30	75.78	0.00	-1835.08	-36.63	0.00
		-1835.08	-36.63	0.00	-1835.08	-36.63	0.00
7	0.00	-809.73	1.94	-9.59	-983.43	170.09	-324.38
		-983.43	170.09	-324.38	-809.73	1.94	-9.59
	0.06	-809.73	0.00	-9.52			
	0.70	-809.73	-19.48	-15.72	-983.43	181.11	-201.46
		-983.43	181.11	-201.46	-809.73	-19.48	-15.72
	1.40	-809.73	-40.90	-36.86	-983.43	192.14	-70.82
		-983.43	192.14	-70.82	-809.73	-40.90	-36.86
	2.10	-809.73	-62.32	-72.98	-983.43	203.16	67.53
		-983.43	203.16	67.53	-809.73	-62.32	-72.98

Stab		Maximalwerte			Minimalwerte		
	x [m]	N [kN]	Q [kN]	M [kNm]	N [kN]	Q [kN]	M [kNm]
	2.80	-809.73	-83.74	-124.10	-983.43	214.19	213.60
		-983.43	214.19	213.60	-809.73	-83.74	-124.10
	3.50	-809.73	-105.16	-190.22	-983.43	225.21	367.39
		-983.43	225.21	367.39	-809.73	-105.16	-190.22
8	0.00	-312.00	30.70	0.00	-312.00	30.70	0.00
		-312.00	45.53	0.00	-312.00	25.22	0.00
	0.90	-312.00	3.16	15.24	-312.00	3.16	15.24
		-312.00	59.71	47.36	-312.00	3.16	15.24
	1.00				-312.00	0.00	15.40
	1.80	-312.00	-24.38	5.68	-312.00	-24.38	5.68
		-312.00	73.88	107.47	-312.00	-24.38	5.68
	2.70	-312.00	-51.92	-28.65	-312.00	-51.92	-28.65
		-312.00	88.06	180.34	-312.00	-51.92	-28.65
	3.60	-312.00	-79.46	-87.78	-312.00	-79.46	-87.78
		-312.00	102.23	265.97	-312.00	-79.46	-87.78
	4.50	-312.00	-107.00	-171.68	-312.00	-107.00	-171.68
		-312.00	116.41	364.36	-312.00	-107.00	-171.68

Extremwerte (fett gedruckt) mit zugehörigen Größen

Verformungen Extremwerte aller Lastkombinationen

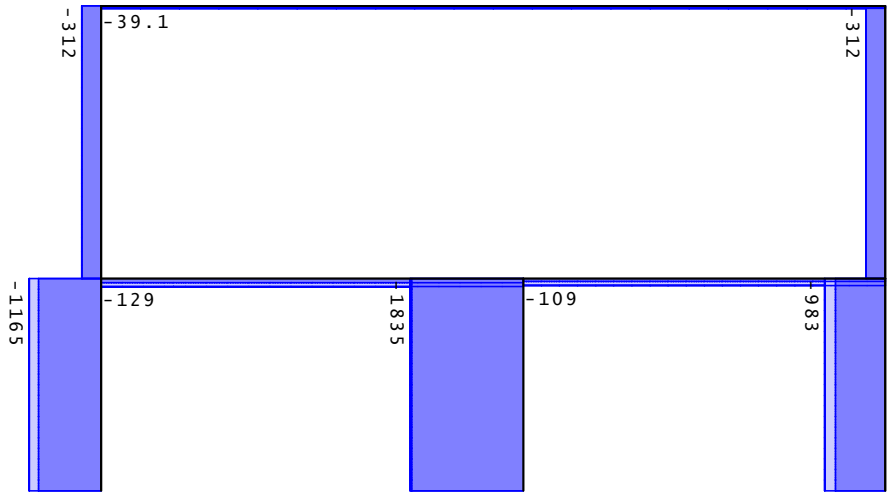
K	Maximalwerte x [cm]	y [cm]	r [rad]	Minimalwerte x [cm]	y [cm]	r [rad]
1	1.398	-0.069	0.00275	-1.073	-0.076	-0.00239
2	1.396	-0.059	0.00183	-1.075	-0.067	-0.00333
3	0.347	-0.049	-0.00047	-0.275	-0.057	-0.00169
4	0.344	-0.088	0.00045	-0.277	-0.089	0.00010
5	0.342	-0.039	0.00111	-0.280	-0.048	-0.00009
6	0.000	0.000	0.00000	0.000	0.000	0.00000
7	0.000	0.000	0.00114	0.000	0.000	-0.00170
8	0.000	0.000	0.00000	0.000	0.000	0.00000

vorgegebene Verschiebungen sind enthalten

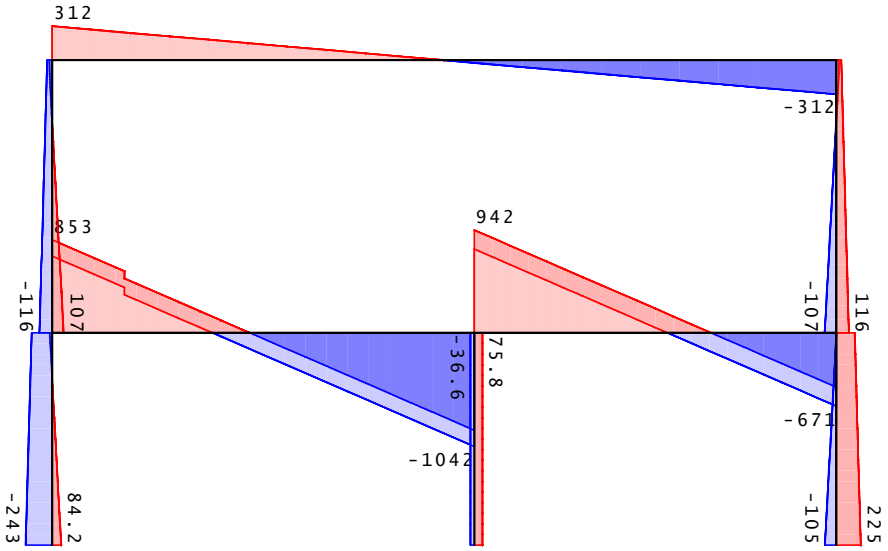
Auflagerkräfte Extremwerte aller Lastkombinationen

K	Maximalwerte X [kN]	Y [kN]	M [kNm]	Minimalwerte X [kN]	Y [kN]	M [kNm]
6	243.41	1165.20	189.46	-84.21	1016.27	-364.97
7	36.63	1835.08	0.00	-75.78	1810.30	0.00
8	105.16	983.43	367.39	-225.21	809.73	-190.22

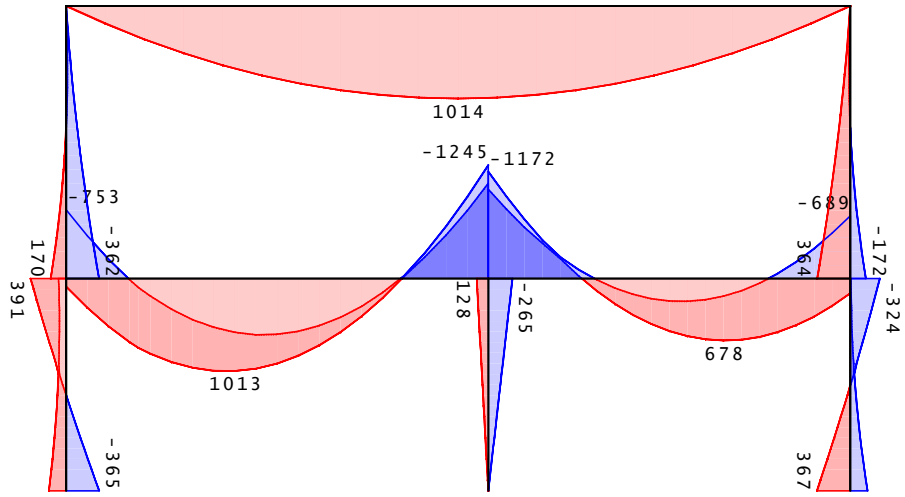
Normalkraft (kN) Extremwerte aller Lastkombinationen
M 1:125



Querkraft (kN) Extremwerte aller Lastkombinationen
M 1:125



Biegemoment (kNm) Extremwerte aller Lastkombinationen
M 1:125



Bemessung nach DIN 1045, Ausgabe Juli 1988

Material

Stab	Beton	Betonstahl ob./unt.	Bügel	Bewehrung
1	B 25	500 S	500 S	Balken
2	B 25	500 S	500 S	Balken
3	B 25	500 S	500 S	Balken
4	B 25	500 S	500 S	-
5	B 25	500 S	500 S	-
6	B 25	500 S	500 S	-
7	B 25	500 S	500 S	-
8	B 25	500 S	500 S	-

Abmessungen

Stab	bo [cm]	do [cm]	bm [cm]	d [cm]	hu' [cm]	ho' [cm]
1	60.0	120.0			4.0	4.0
2	60.0	80.0	250.0	20.0	4.0	4.0
3	60.0	80.0	200.0	20.0	4.0	4.0
4	40.0	60.0			4.0	4.0
5	40.0	60.0			4.0	4.0
6	40.0	60.0			4.0	4.0
7	40.0	60.0			4.0	4.0
8	40.0	60.0			4.0	4.0

Biege- u. Schubbemessung Lastfall 1

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.10	0.10	0.211	0.527	4.43	1
	2.60	19.87	19.87	0.127	0.316	2.66	1
	5.20	29.95	29.95	0.042	0.105	0.89	1
	6.50	31.22	31.22	0.000	0.000	0.00	1
	7.80	29.95	29.95	0.042	0.105	0.89	1
	10.40	19.87	19.87	0.127	0.316	2.66	1
	13.00	0.10	0.10	0.211	0.527	4.43	1
2	0.00	0.00	16.04	1.861	1.861	39.09	3
	1.20	19.03	0.00	0.702	1.124	14.74	2
	1.20	19.03	0.00	0.526	0.973	11.05	2
	1.40	23.01	0.00	0.418	0.868	8.78	2
	2.80	37.86	0.00	0.039	0.099	0.83	1
	2.98	38.05	0.00	0.000	0.000	0.00	1
	4.20	28.95	0.00	0.271	0.677	5.69	1
	5.60	0.00	-2.34	1.113	1.416	23.38	2
	7.00	0.00	66.08	2.719	2.719	57.10	3
3	0.00	0.00	61.20	2.345	2.345	49.24	3
	1.20	0.00	10.07	0.974	1.324	20.46	2
	2.40	12.71	0.00	0.252	0.631	5.30	1
	3.56	20.64	0.00	0.000	0.000	0.00	1
	3.60	20.63	0.00	0.010	0.024	0.20	1
	4.80	11.48	0.00	0.271	0.678	5.69	1
	6.00	0.00	12.70	1.065	1.385	22.37	2

Knicksicherheitsnachweis Lastfall 1

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1092.41	269.27	9.04	37.67	0.75	3.85
	0.70	-1092.41	202.48	7.86	32.74	0.65	3.64
	1.40	-1092.41	131.96	6.61	27.53	0.55	3.08
	2.10	-1092.41	60.08	5.35	22.28	0.45	2.40
	2.80	-1092.41	-56.39	5.29	22.04	0.44	2.36
	3.50	-1092.41	-128.37	6.54	27.27	0.55	3.05
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-62.21	2.32	9.67	0.19	12.67
	1.80	-312.00	-94.56	2.90	12.06	0.24	15.76
	2.70	-312.00	-120.60	3.90	16.26	0.33	16.83
	3.60	-312.00	-143.30	4.98	20.76	0.42	16.83
	4.50	-312.00	-165.99	6.20	25.82	0.52	16.83
6	0.00	-1819.05	-202.63	14.63	40.00	1.22	7.37
	0.70	-1819.05	-183.66	13.12	40.00	1.09	7.08
	1.40	-1819.05	-164.46	11.57	40.00	0.96	6.78
	2.10	-1819.05	-145.00	9.96	40.00	0.83	6.46
	2.80	-1819.05	-125.24	9.33	38.86	0.78	6.13
	3.50	-1819.05	105.13	8.98	37.42	0.75	5.78
7	0.00	-898.54	-192.57	6.92	28.85	0.58	3.86
	0.70	-898.54	-137.38	5.95	24.78	0.50	3.37
	1.40	-898.54	-81.42	4.95	20.64	0.41	2.79
	2.10	-898.54	-24.04	4.00	16.68	0.33	2.05

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
	2.80	-898.54	68.86	4.73	19.71	0.39	2.64
	3.50	-898.54	125.06	5.73	23.86	0.48	3.25
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	62.21	2.32	9.67	0.19	12.67
	1.80	-312.00	94.56	2.90	12.06	0.24	15.76
	2.70	-312.00	120.60	3.90	16.26	0.33	16.83
	3.60	-312.00	143.30	4.98	20.76	0.42	16.83
	4.50	-312.00	165.99	6.20	25.82	0.52	16.83

Biege- u. Schubbemessung — Lastkombination 1
Maximalwerte

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	tau [N/mm2]	Querkraftbemessung tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.15	0.15	0.211	0.527	4.43	1
	2.60	19.87	19.87	0.127	0.316	2.66	1
	5.20	29.95	29.95	0.042	0.105	0.89	1
	6.50	30.99	30.99	0.000	0.000	0.00	1
	7.80	29.95	29.95	0.042	0.105	0.89	1
	10.40	19.87	19.87	0.127	0.316	2.66	1
	13.00	0.15	0.15	0.211	0.527	4.43	1
2	0.00	1.73	16.04	1.861	1.861	39.09	3
	1.20	34.87	0.00	0.702	1.124	14.74	2
	1.20	34.87	0.00	0.526	0.973	11.05	2
	1.40	38.20	0.00	0.418	0.868	8.78	2
	2.66	48.02	0.00	0.000	0.000	0.00	1
	2.80	47.90	0.00	0.039	0.099	0.83	1
	4.20	33.38	0.00	0.409	0.858	8.59	2
	5.60	0.00	-2.34	1.415	1.596	29.71	2
	7.00	0.00	66.08	2.719	2.719	57.10	3
3	0.00	0.00	61.20	2.345	2.345	49.24	3
	1.20	0.00	10.07	0.974	1.324	20.46	2
	2.40	12.71	0.00	0.252	0.631	5.30	1
	3.56	20.64	0.00	0.000	0.000	0.00	1
	3.60	20.63	0.00	0.010	0.024	0.20	1
	4.80	11.48	0.00	0.271	0.678	5.69	1
	6.00	0.00	12.70	1.065	1.385	22.37	2

Knicksicherheitsnachweis — Lastkombination 1
Maximalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1016.27	269.27	9.04	37.67	0.75	3.85
	0.70	-1016.27	202.48	7.86	32.74	0.65	3.64
	1.40	-1016.27	131.96	6.61	27.53	0.55	3.08
	2.10	-1016.27	133.92	6.34	26.44	0.53	3.18
	2.80	-1016.27	173.81	7.05	29.38	0.59	3.52
	3.50	-1016.27	228.63	8.02	33.43	0.67	3.85
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-51.61	2.13	8.89	0.18	11.53
	1.02	-312.00	-51.93	2.14	8.91	0.18	11.57

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
	1.80	-312.00	-37.28	1.88	7.83	0.16	9.88
	2.70	-312.00	69.22	2.45	10.19	0.20	13.38
	3.60	-312.00	138.73	4.75	19.81	0.40	16.83
	4.50	-312.00	222.25	9.54	39.74	0.79	16.83
6	0.00	-1810.30	-202.63	34.90	40.00	2.91	10.72
	0.70	-1810.30	-183.66	29.50	40.00	2.46	9.93
	1.40	-1810.30	-164.46	23.93	40.00	1.99	9.07
	2.10	-1810.30	-145.00	18.44	40.00	1.54	8.13
	2.80	-1810.30	-125.24	12.72	40.00	1.06	7.05
	3.50	-1810.30	104.63	8.94	37.24	0.74	5.78
7	0.00	-898.54	-192.57	12.90	40.00	1.07	3.86
	0.70	-898.54	-137.38	8.09	33.69	0.67	3.85
	1.40	-898.54	-81.42	5.60	23.34	0.47	2.89
	2.10	-898.54	95.61	5.54	23.07	0.46	2.86
	2.80	-898.54	251.50	8.30	34.59	0.69	3.85
	3.50	-898.54	405.29	15.79	40.00	1.32	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	97.27	2.94	12.26	0.25	16.00
	1.80	-312.00	159.98	5.87	24.44	0.49	16.83
	2.70	-312.00	232.85	10.21	40.00	0.85	16.83
	3.60	-312.00	318.48	15.98	40.00	1.33	16.83
	4.50	-312.00	416.86	22.60	40.00	1.88	16.83

Biege- u. Schubbemessung — Lastkombination 1
Minimalwerte

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.15	0.15	0.211	0.527	4.43	1
	2.60	19.65	19.65	0.127	0.316	2.66	1
	5.20	29.73	29.73	0.042	0.105	0.89	1
	6.50	30.99	30.99	0.000	0.000	0.00	1
	7.80	29.73	29.73	0.042	0.105	0.89	1
	10.40	19.65	19.65	0.127	0.316	2.66	1
	13.00	0.15	0.15	0.211	0.527	4.43	1
2	0.00	1.73	16.04	1.861	1.861	39.09	3
	1.20	34.87	0.00	0.702	1.124	14.74	2
	1.20	34.87	0.00	0.526	0.973	11.05	2
	1.40	38.20	0.00	0.418	0.868	8.78	2
	2.80	47.90	0.00	0.039	0.099	0.83	1
	2.98	38.05	0.00	0.000	0.000	0.00	1
	4.20	33.38	0.00	0.409	0.858	8.59	2
	5.60	0.00	-2.34	1.415	1.596	29.71	2
	7.00	5.91	70.84	2.944	2.944	61.82	3
3	0.00	0.00	61.20	2.345	2.345	49.24	3
	1.20	0.00	10.48	0.707	1.128	14.84	2
	2.40	7.18	0.00	0.174	0.434	3.65	1
	3.20	10.91	0.00	0.000	0.000	0.00	1
	3.60	9.99	0.00	0.086	0.216	1.82	1
	4.80	0.00	1.68	0.419	0.868	8.80	2
	6.00	0.00	35.46	1.579	1.686	33.16	2

Knicksicherheitsnachweis — Lastkombination 1
Minimalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1016.27	269.27	9.04	37.67	0.75	3.85
	0.70	-1016.27	202.48	7.86	32.74	0.65	3.64
	0.75	-1016.27	103.04	5.80	24.16	0.48	2.90
	1.40	-1016.27	131.96	6.61	27.53	0.55	3.08
	2.10	-1092.41	60.08	5.35	22.28	0.45	2.40
	2.80	-1092.41	-56.39	5.29	22.04	0.44	2.36
	3.50	-1092.41	-128.37	6.54	27.27	0.55	3.05
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-51.61	2.32	9.67	0.19	12.67
	1.80	-312.00	-37.28	2.90	12.06	0.24	15.76
	2.70	-312.00	69.22	3.90	16.26	0.33	16.83
	3.60	-312.00	138.73	4.98	20.76	0.42	16.83
	4.50	-312.00	222.25	9.54	39.74	0.79	16.83
6	0.00	-1810.30	-202.63	34.90	40.00	2.91	10.72
	0.70	-1810.30	-183.66	29.50	40.00	2.46	9.93
	1.40	-1810.30	-164.46	23.93	40.00	1.99	9.07
	2.10	-1810.30	-145.00	18.44	40.00	1.54	8.13
	2.80	-1810.30	-125.24	12.72	40.00	1.06	7.05
	3.50	-1810.30	105.13	8.98	37.42	0.75	5.78
7	0.00	-898.54	-192.57	12.90	40.00	1.07	3.86
	0.70	-898.54	-137.38	8.09	33.69	0.67	3.85
	1.40	-898.54	-81.42	5.60	23.34	0.47	2.89
	2.10	-898.54	95.61	5.54	23.07	0.46	2.86
	2.80	-898.54	251.50	8.30	34.59	0.69	3.85
	3.50	-898.54	405.29	15.79	40.00	1.32	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	97.27	2.94	12.26	0.25	16.00
	1.80	-312.00	159.98	5.87	24.44	0.49	16.83
	2.70	-312.00	232.85	10.21	40.00	0.85	16.83
	3.60	-312.00	318.48	15.98	40.00	1.33	16.83
	4.50	-312.00	416.86	22.60	40.00	1.88	16.83

Biege- u. Schubbemessung

Lastkombination 2
Maximalwerte

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.16	0.16	0.211	0.527	4.43	1
	2.60	19.87	19.87	0.127	0.316	2.66	1
	5.20	29.95	29.95	0.042	0.105	0.89	1
	6.50	30.96	30.96	0.000	0.000	0.00	1
	7.80	29.95	29.95	0.042	0.105	0.89	1
	10.40	19.87	19.87	0.127	0.316	2.66	1
	13.00	0.16	0.16	0.211	0.527	4.43	1
2	0.00	0.00	39.15	2.174	2.174	45.65	3
	1.20	19.03	0.00	0.888	1.264	18.65	2
	1.20	19.03	0.00	0.693	1.117	14.55	2
	1.40	23.01	0.00	0.573	1.016	12.04	2
	2.80	37.86	0.00	0.106	0.265	2.23	1
	2.98	38.05	0.00	0.000	0.000	0.00	1
	4.20	28.95	0.00	0.271	0.677	5.69	1
	5.60	0.00	0.04	1.113	1.416	23.38	2

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
	7.00	0.00	66.08	2.719	2.719	57.10	3
3	0.00	1.97	67.61	2.663	2.663	55.92	3
	1.20	0.00	10.07	1.311	1.536	27.53	2
	2.40	17.26	0.00	0.393	0.841	8.25	2
	3.60	30.75	0.00	0.073	0.183	1.53	1
	3.93	31.40	0.00	0.000	0.000	0.00	1
	4.80	26.72	0.00	0.271	0.678	5.69	1
	6.00	5.67	12.70	1.065	1.385	22.37	2

Knicksicherheitsnachweis — Lastkombination 2
Maximalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1092.41	435.41	20.57	40.00	1.71	3.85
	0.70	-1092.41	299.75	10.71	40.00	0.89	3.85
	1.40	-1092.41	148.06	7.18	29.90	0.60	3.14
	2.10	-1092.41	60.08	5.35	22.28	0.45	2.40
	2.80	-1092.41	-56.39	5.29	22.04	0.44	2.36
	3.50	-1092.41	-128.37	6.54	27.27	0.55	3.05
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-62.21	2.93	12.22	0.24	15.95
	1.80	-312.00	-94.56	5.82	24.26	0.49	16.83
	2.70	-312.00	-120.60	10.14	40.00	0.84	16.83
	3.60	-312.00	-143.30	15.87	40.00	1.32	16.83
	4.50	-312.00	-165.99	22.47	40.00	1.87	16.83
6	0.00	-1819.05	284.24	21.32	40.00	1.78	8.50
	0.70	-1819.05	249.97	18.64	40.00	1.55	8.03
	1.40	-1819.05	215.16	15.92	40.00	1.33	7.53
	2.10	-1819.05	179.69	13.10	40.00	1.09	7.00
	2.80	-1819.05	143.41	10.13	40.00	0.84	6.42
	3.50	-1819.05	106.06	9.06	37.75	0.75	5.78
7	0.00	-809.73	-26.86	6.92	28.85	0.58	3.86
	0.06	-809.73	-26.79	3.69	15.37	0.31	2.13
	0.70	-809.73	-33.89	5.95	24.78	0.50	3.37
	1.40	-809.73	-57.79	4.95	20.64	0.41	2.79
	2.10	-809.73	-24.04	4.90	20.42	0.41	3.08
	2.80	-809.73	68.86	5.89	24.55	0.49	3.68
	3.50	-809.73	125.06	7.09	29.54	0.59	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	62.21	2.32	9.67	0.19	12.67
	1.80	-312.00	94.56	2.90	12.06	0.24	15.76
	2.70	-312.00	120.60	3.90	16.26	0.33	16.83
	3.60	-312.00	143.30	4.98	20.76	0.42	16.83
	4.50	-312.00	165.99	9.63	40.00	0.80	16.83

Biege- u. Schubbemessung — Lastkombination 2
Minimalwerte

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.16	0.16	0.211	0.527	4.43	1
	2.60	19.62	19.62	0.127	0.316	2.66	1
	5.20	29.69	29.69	0.042	0.105	0.89	1
	6.50	30.96	30.96	0.000	0.000	0.00	1
	7.80	29.69	29.69	0.042	0.105	0.89	1
	10.40	19.62	19.62	0.127	0.316	2.66	1
	13.00	0.16	0.16	0.211	0.527	4.43	1
2	0.00	0.00	39.15	2.174	2.174	45.65	3
	1.20	19.03	0.00	0.888	1.264	18.65	2
	1.20	19.03	0.00	0.693	1.117	14.55	2
	1.40	23.01	0.00	0.573	1.016	12.04	2
	2.80	37.86	0.00	0.106	0.265	2.23	1
	3.28	28.61	0.00	0.000	0.000	0.00	1
	4.20	28.95	0.00	0.271	0.677	5.69	1
	5.60	0.00	0.04	1.113	1.416	23.38	2
	7.00	0.00	66.08	2.719	2.719	57.10	3
3	0.00	1.97	67.61	2.663	2.663	55.92	3
	1.20	0.00	10.07	1.311	1.536	27.53	2
	2.40	17.26	0.00	0.393	0.841	8.25	2
	3.56	20.64	0.00	0.000	0.000	0.00	1
	3.60	30.75	0.00	0.073	0.183	1.53	1
	4.80	26.72	0.00	0.271	0.678	5.69	1
	6.00	5.67	12.70	1.065	1.385	22.37	2

Knicksicherheitsnachweis — Lastkombination 2
Minimalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1092.41	435.41	20.57	40.00	1.71	3.85
	0.70	-1092.41	299.75	10.71	40.00	0.89	3.85
	1.40	-1092.41	148.06	7.18	29.90	0.60	3.14
	2.10	-1165.20	-68.07	5.76	24.01	0.48	2.44
	2.80	-1165.20	-242.95	8.86	36.91	0.74	3.82
	3.50	-1165.20	-409.87	18.70	40.00	1.56	3.85
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-96.73	2.93	12.22	0.24	15.95
	1.80	-312.00	-159.20	5.82	24.26	0.49	16.83
	2.70	-312.00	-231.68	10.14	40.00	0.84	16.83
	3.60	-312.00	-316.92	15.87	40.00	1.32	16.83
	4.50	-312.00	-414.92	22.47	40.00	1.87	16.83
6	0.00	-1819.05	284.24	21.32	40.00	1.78	8.50
	0.70	-1819.05	249.97	18.64	40.00	1.55	8.03
	1.40	-1819.05	215.16	15.92	40.00	1.33	7.53
	2.10	-1819.05	179.69	13.10	40.00	1.09	7.00
	2.80	-1819.05	143.41	10.13	40.00	0.84	6.42
	3.50	-1835.08	106.06	9.06	37.75	0.75	5.78
7	0.00	-809.73	-26.86	6.92	28.85	0.58	3.86
	0.70	-809.73	-33.89	5.95	24.78	0.50	3.37
	1.40	-809.73	-57.79	4.95	20.64	0.41	2.79
	2.10	-809.73	-24.04	4.90	20.42	0.41	3.08

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
	2.80	-809.73	68.86	5.89	24.55	0.49	3.68
	3.50	-809.73	125.06	7.09	29.54	0.59	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	51.02	2.12	8.85	0.18	11.47
	1.00	-312.00	51.26	2.13	8.87	0.18	11.50
	1.80	-312.00	36.02	1.86	7.74	0.15	9.72
	2.70	-312.00	-70.92	2.48	10.32	0.21	13.55
	3.60	-312.00	-140.28	4.83	20.13	0.40	16.83
	4.50	-312.00	-224.19	9.63	40.00	0.80	16.83

Biege- u. Schubbemessung — Extremwerte aller Lastkombination
Maximalwerte

Stab	x	Biegebemessung erf Asu	erf Aso	Querkraftbemessung tau	tau0	erf Asb	Bereich
	[m]	[cm2]	[cm2]	[N/mm2]	[N/mm2]	[cm2/m]	[-]
1	0.00	0.16	0.16	0.211	0.527	4.43	1
	2.60	19.87	19.87	0.127	0.316	2.66	1
	5.20	29.95	29.95	0.042	0.105	0.89	1
	6.50	30.96	30.96	0.000	0.000	0.00	1
	7.80	29.95	29.95	0.042	0.105	0.89	1
	10.40	19.87	19.87	0.127	0.316	2.66	1
	13.00	0.16	0.16	0.211	0.527	4.43	1
2	0.00	1.73	39.15	2.174	2.174	45.65	3
	1.20	34.87	0.00	0.888	1.264	18.65	2
	1.20	34.87	0.00	0.693	1.117	14.55	2
	1.40	38.20	0.00	0.573	1.016	12.04	2
	2.66	48.02	0.00	0.000	0.000	0.00	1
	2.80	47.90	0.00	0.106	0.265	2.23	1
	4.20	33.38	0.00	0.409	0.858	8.59	2
	5.60	0.00	0.04	1.415	1.596	29.71	2
	7.00	0.00	66.08	2.719	2.719	57.10	3
3	0.00	1.97	67.61	2.663	2.663	55.92	3
	1.20	0.00	10.07	1.311	1.536	27.53	2
	2.40	17.26	0.00	0.393	0.841	8.25	2
	3.60	30.75	0.00	0.073	0.183	1.53	1
	3.93	31.40	0.00	0.000	0.000	0.00	1
	4.80	26.72	0.00	0.271	0.678	5.69	1
	6.00	5.67	12.70	1.065	1.385	22.37	2

Knicksicherheitsnachweis — Extremwerte aller Lastkombinationen
Maximalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1016.27	435.41	20.57	40.00	1.71	3.85
	0.70	-1016.27	299.75	10.71	40.00	0.89	3.85
	1.40	-1016.27	148.06	7.18	29.90	0.60	3.14
	2.10	-1016.27	133.92	6.34	26.44	0.53	3.18
	2.80	-1016.27	173.81	7.05	29.38	0.59	3.52
	3.50	-1016.27	228.63	8.02	33.43	0.67	3.85
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-51.61	2.93	12.22	0.24	15.95

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
	1.02	-312.00	-51.93	2.14	8.91	0.18	11.57
	1.80	-312.00	-37.28	5.82	24.26	0.49	16.83
	2.70	-312.00	69.22	10.14	40.00	0.84	16.83
	3.60	-312.00	138.73	15.87	40.00	1.32	16.83
	4.50	-312.00	222.25	22.47	40.00	1.87	16.83
6	0.00	-1810.30	284.24	34.90	40.00	2.91	10.72
	0.70	-1810.30	249.97	29.50	40.00	2.46	9.93
	1.40	-1810.30	215.16	23.93	40.00	1.99	9.07
	2.10	-1810.30	179.69	18.44	40.00	1.54	8.13
	2.80	-1810.30	143.41	12.72	40.00	1.06	7.05
	3.50	-1810.30	106.06	9.06	37.75	0.75	5.78
7	0.00	-809.73	-26.86	12.90	40.00	1.07	3.85
	0.06	-809.73	-26.79	3.69	15.37	0.31	2.13
	0.70	-809.73	-33.89	8.09	33.69	0.67	3.85
	1.40	-809.73	-57.79	5.60	23.34	0.47	2.89
	2.10	-809.73	95.61	5.54	23.07	0.46	3.08
	2.80	-809.73	251.50	8.30	34.59	0.69	3.85
	3.50	-809.73	405.29	15.79	40.00	1.32	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	97.27	2.94	12.26	0.25	16.00
	1.80	-312.00	159.98	5.87	24.44	0.49	16.83
	2.70	-312.00	232.85	10.21	40.00	0.85	16.83
	3.60	-312.00	318.48	15.98	40.00	1.33	16.83
	4.50	-312.00	416.86	22.60	40.00	1.88	16.83

Biege- u. Schubbemessung — Extremwerte aller Lastkombination Minimalwerte

Stab	x [m]	Biegebemessung erf Asu [cm2]	erf Aso [cm2]	Querkraftbemessung tau [N/mm2]	tau0 [N/mm2]	erf Asb [cm2/m]	Bereich [-]
1	0.00	0.16	0.16	0.211	0.527	4.43	1
	2.60	19.62	19.62	0.127	0.316	2.66	1
	5.20	29.69	29.69	0.042	0.105	0.89	1
	6.50	30.96	30.96	0.000	0.000	0.00	1
	7.80	29.69	29.69	0.042	0.105	0.89	1
	10.40	19.62	19.62	0.127	0.316	2.66	1
	13.00	0.16	0.16	0.211	0.527	4.43	1
2	0.00	1.73	39.15	2.174	2.174	45.65	3
	1.20	34.87	0.00	0.888	1.264	18.65	2
	1.20	34.87	0.00	0.693	1.117	14.55	2
	1.40	38.20	0.00	0.573	1.016	12.04	2
	2.80	47.90	0.00	0.106	0.265	2.23	1
	3.28	28.61	0.00	0.000	0.000	0.00	1
	4.20	33.38	0.00	0.409	0.858	8.59	2
	5.60	0.00	0.04	1.415	1.596	29.71	2
	7.00	5.91	70.84	2.944	2.944	61.82	3
3	0.00	1.97	67.61	2.663	2.663	55.92	3
	1.20	0.00	10.48	1.311	1.536	27.53	2
	2.40	17.26	0.00	0.393	0.841	8.25	2
	3.20	10.91	0.00	0.000	0.000	0.00	1
	3.60	30.75	0.00	0.086	0.216	1.82	1
	4.80	26.72	1.68	0.419	0.868	8.80	2
	6.00	5.67	35.46	1.579	1.686	33.16	2

Knicksicherheitsnachweis — Extremwerte aller Lastkombinationen Minimalwerte

Knicklängenbeiwert und Schlankheit

Stab	beta [-]	lambda [-]	Stab	beta [-]	lambda [-]
4	1.50	30.28	5	2.50	64.88
6	2.50	50.46	7	1.50	30.28
8	2.50	64.88			

Stab	x [m]	bem N [kN]	bem M [kNm]	Asu=Aso [cm2]	red b [cm]	mue [%]	f [cm]
4	0.00	-1016.27	435.41	20.57	40.00	1.71	3.85
	0.70	-1016.27	299.75	10.71	40.00	0.89	3.85
	0.75	-1016.27	103.04	5.80	24.16	0.48	2.90
	1.40	-1016.27	148.06	7.18	29.90	0.60	3.14
	2.10	-1165.20	-68.07	5.76	24.01	0.48	2.44
	2.80	-1165.20	-242.95	8.86	36.91	0.74	3.82
	3.50	-1165.20	-409.87	18.70	40.00	1.56	3.85
5	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	-96.73	2.93	12.22	0.24	15.95
	1.80	-312.00	-159.20	5.82	24.26	0.49	16.83
	2.70	-312.00	-231.68	10.14	40.00	0.84	16.83
	3.60	-312.00	-316.92	15.87	40.00	1.32	16.83
	4.50	-312.00	-414.92	22.47	40.00	1.87	16.83
6	0.00	-1810.30	284.24	34.90	40.00	2.91	10.72
	0.70	-1810.30	249.97	29.50	40.00	2.46	9.93
	1.40	-1810.30	215.16	23.93	40.00	1.99	9.07
	2.10	-1810.30	179.69	18.44	40.00	1.54	8.13
	2.80	-1810.30	143.41	12.72	40.00	1.06	7.05
	3.50	-1835.08	106.06	9.06	37.75	0.75	5.78
7	0.00	-809.73	-26.86	12.90	40.00	1.07	3.85
	0.70	-809.73	-33.89	8.09	33.69	0.67	3.85
	1.40	-809.73	-57.79	5.60	23.34	0.47	2.89
	2.10	-809.73	95.61	5.54	23.07	0.46	3.08
	2.80	-809.73	251.50	8.30	34.59	0.69	3.85
	3.50	-809.73	405.29	15.79	40.00	1.32	3.85
8	0.00	-312.00	26.57	1.69	7.04	0.14	8.52
	0.90	-312.00	51.02	2.12	8.85	0.18	11.47
	1.00	-312.00	51.26	2.13	8.87	0.18	11.50
	1.80	-312.00	36.02	1.86	7.74	0.15	9.72
	2.70	-312.00	-70.92	2.48	10.32	0.21	13.55
	3.60	-312.00	-140.28	4.83	20.13	0.40	16.83
	4.50	-312.00	-224.19	9.63	40.00	0.80	16.83