

1-FELD FALTWERK

1. Eingabedaten Platte/Scheibe aus Brettsper Holz

Nachweise nach DIN EN 1995, Deutschland, Nutzungsklasse 1

1.1. Berechnungseinstellungen

Netzdichtefaktor = 2 [-]

2. Systembeschreibung

Systemlänge $l = 5000$ mm, Systemhöhe $h = 3000$ mm

2.1. Wandtyp

Derix X-Lam X-160/5s, Aufbau **40.0-20.0-40.0-20.0-40.0** Nadelvollholz, C24 (S10)
 Decklagen in x-Richtung, $d = 160.0$ mm $\Rightarrow d_x = 120$ mm, $d_y = 40$ mm,
 Schmalflächen nicht verleimt

2.2. Statische Werte

Schubkorrekturfaktor $\kappa_x = 0.197748$, $\kappa_y = 0.133221$
 Brettbreite $b = 185$ mm, Achsabstand der Bretter $a = 185$ mm
 Nachweis nach Mestek mit $I_p = 195225104$ mm⁴

2.3. Festigkeiten

$f_{c0,k} = 21.00$ N/mm², $f_{t0,k} = 14.50$ N/mm², $f_{v,k} = 2.00$ N/mm², $f_{tor,k} = 2.50$ N/mm², $f_{vR,k} = 1.00$ N/mm²

2.4. Rechteckige Öffnungen

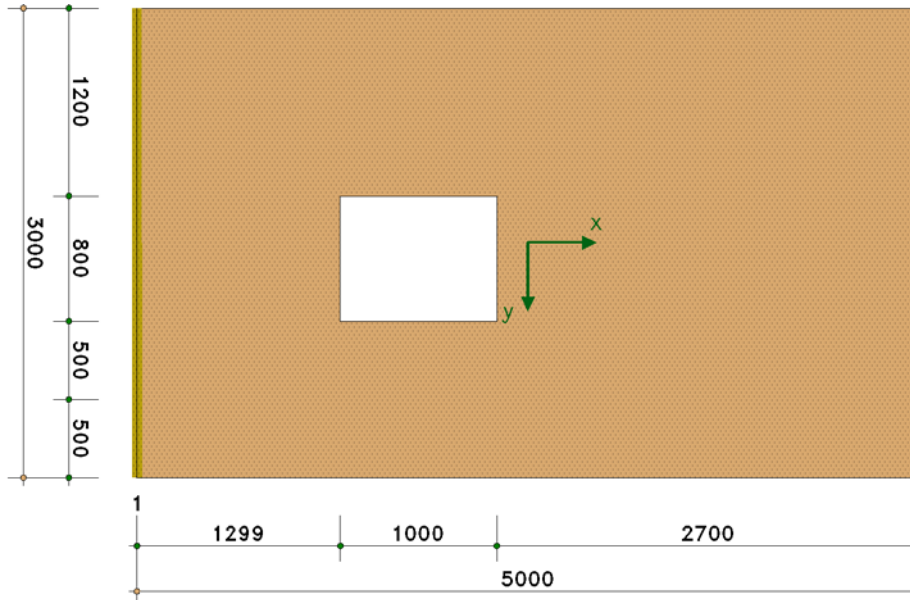
Name	x [mm]	y [mm]	Breite [mm]	Höhe [mm]
Öffnung 1	-1200	-300	1000	800

2.5. Linienlager

Name	Xa [mm]	Ya [mm]	Xe [mm]	Ye [mm]	Lager - x kN/mm ²	Lager - y kN/mm ²	Lager - mz kNm/m	Lager - z kN/mm ²	Lager - mx kNm/m	Lager - my kNm/m
Lagerlinie li	-2500	-1500	-2499	1500	starr	1	10000	starr	10000	10000
Lagerlinie re	2500	-1500	2500	1000	starr	starr	10000	starr	10000	10000

2.6. Wandscheibe

Ansicht Maßstab 1:484



3. Einwirkungen / Lasten

Beschreibung der Belastungsstruktur

Auf der linken Seite sind die Beziehungen der Einwirkungen, Lastfallordner und Lastfälle zueinander in einer Baumstruktur dargestellt. Auf der rechten Seite sind die überlagerungsspezifischen Eigenschaften den links stehenden Objekten zugeordnet angegeben. Ein Lastfallordner entspricht überlagerungstechnisch einer Extremierung der in ihm definierten Objekte und kann seinerseits wiederum additiv oder alternativ überlagert werden.

verwendete Symbole:



Einwirkung



Lastfallordner



Lastfall



Imperfektionsfälle

Beschreibung der Belastungsstruktur

Auf der linken Seite sind die Beziehungen der Einwirkungen, Lastfallordner und Lastfälle zueinander in einer Baumstruktur dargestellt. Auf der rechten Seite sind die überlagerungsspezifischen Eigenschaften den links stehenden Objekten zugeordnet angegeben. Ein Lastfallordner entspricht überlagerungstechnisch einer Extremierung der in ihm definierten Objekte und kann seinerseits wiederum additiv oder alternativ überlagert werden.

1: ständige Lasten

1: Eigengewicht (1)

2: veränderliche Einwirkung

2: Nutzlast

3: Wind

3: Wind West

ständige Lasten

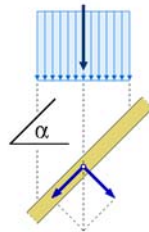
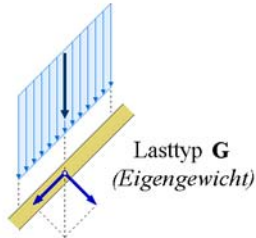
additiv

sonstige veränderliche Einwirkungen

additiv

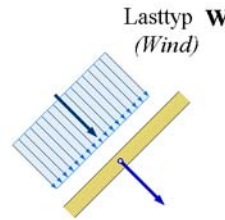
veränderliche Windlasten

additiv



Lasttyp S
(Schnee)

Beim Lasttyp S wird die Lastresultierende mit dem Faktor $\cos \alpha$ reduziert.



1: Ständige Einwirkung: ständige Lasten Eigengewicht (1)

Name	q_x	q_y	q_z	ρ	Schwerkraft- richtung
Flächenlast	[kN/m ²]	[kN/m ²]	[kN/m ²]	[kN/m ³]	
Flächenlast/Eigengewicht 1	0.0000	0.0000	0.0000	5.0000	z (Platte)

2: Veränderliche Einwirkung: veränderliche Einwirkung Nutzlast

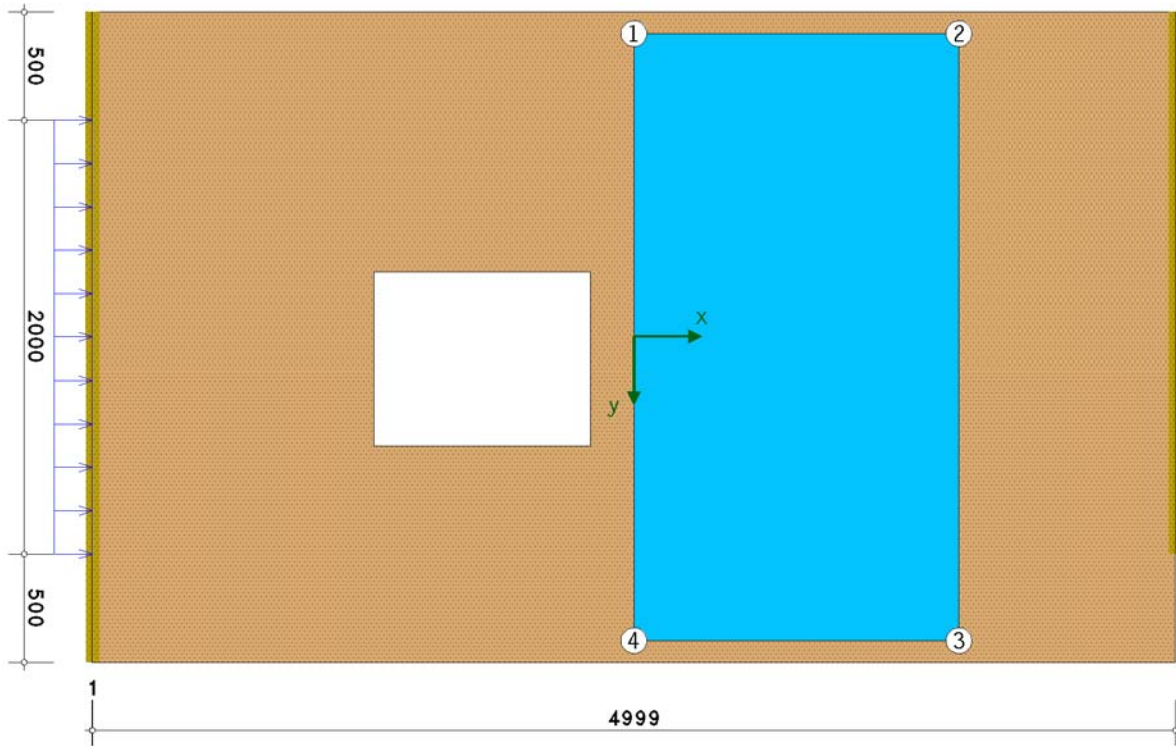
Name	Form	x	y	Breite	Höhe	Punkt
Teillast	[-]	[mm]	[mm]	[mm]	[mm]	[-]
Last	Recht.	0	-1400	1500	2800	1/2/3

q_{z1}	q_{z2}	q_{z3}	Σq_z
[kN/m ²]	[kN/m ²]	[kN/m ²]	[kN]
5.00	5.00	5.00	0.0

Lasten über Löchern oder außerhalb der Platte/Scheibe bleiben unberücksichtigt

3: Veränderliche Einwirkung: Wind Wind West

Name	Typ	x_a	y_a	x_e	y_e	$q_x(l)_a$	$q_x(l)_e$	$q_y(m)_a$	$q_y(m)_e$	q_{z_a}	q_{z_e}
Linienlast	[-]	[mm]	[mm]	[mm]	[mm]	[kN/m]	[kN/m]	[kN/m]	[kN/m]	[kN/m]	[kN/m]
Wind	G	-2500	-1000	-2499	1000	10.00	10.00	0.00	0.00	0.00	0.00



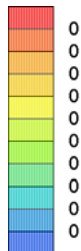
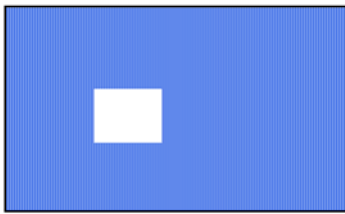
4. Lastfallergebnisse

4.1. Flächenergebnisse

4.1.1. 1 : Eigengewicht (1)

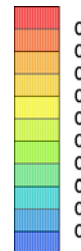
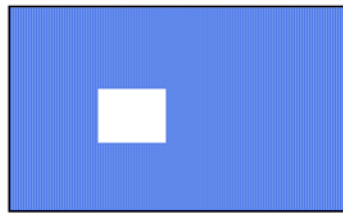
Verformungen u_x [mm]

min $u_x = 0.0000$ mm, max $u_x = 0.0000$ mm



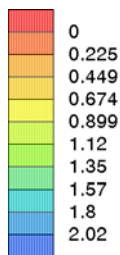
Verformungen u_y [mm]

min $u_y = 0.0000$ mm, max $u_y = 0.0000$ mm



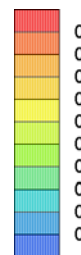
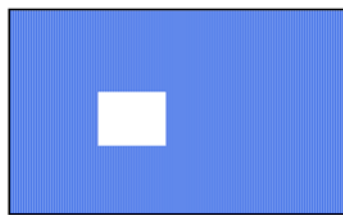
Verformungen u_z [mm]

min $u_z = -0.0000$ mm, max $u_z = 2.0227$ mm



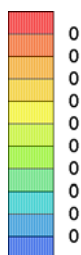
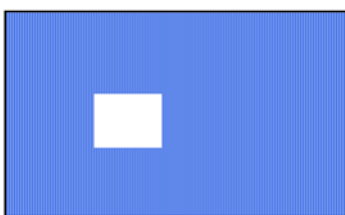
Normalkräfte n_{xx} [kN/m]

min $n_{xx} = 0.00$ kN/m, max $n_{xx} = 0.00$ kN/m



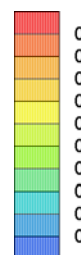
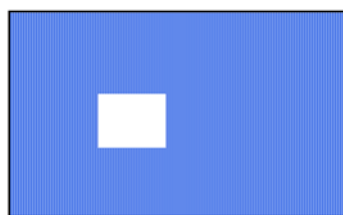
Normalkräfte n_{yy} [kN/m]

min $n_{yy} = 0.00$ kN/m, max $n_{yy} = 0.00$ kN/m



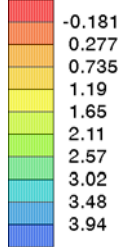
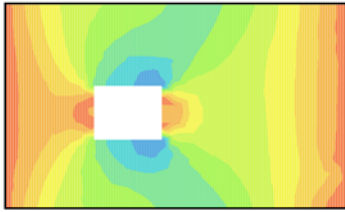
Normalkräfte n_{xy} [kN/m]

min $n_{xy} = 0.00$ kN/m, max $n_{xy} = 0.00$ kN/m



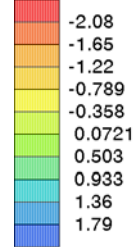
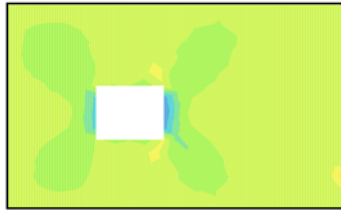
Momente m_{xx} [kN/m]

min m_{xx} = -0.18 kNm/m, max m_{xx} = 3.94 kNm/m



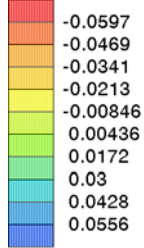
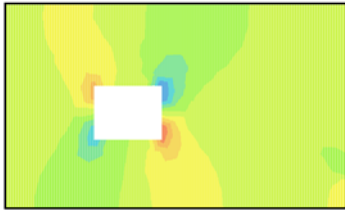
Momente m_{yy} [kN/m]

min m_{yy} = -2.08 kNm/m, max m_{yy} = 1.79 kNm/m



Momente m_{xy} [kN/m]

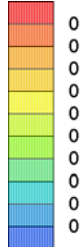
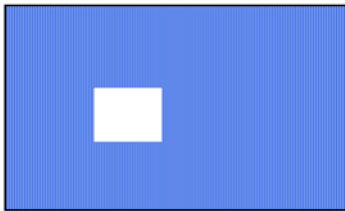
min m_{xy} = -0.06 kNm/m, max m_{xy} = 0.06 kNm/m



4.1.2. 2 : Nutzlast

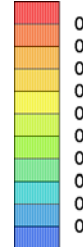
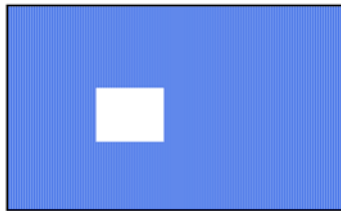
Verformungen u_x [mm]

min u_x = 0.0000 mm, max u_x = 0.0000 mm



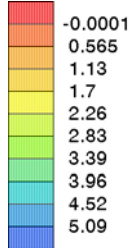
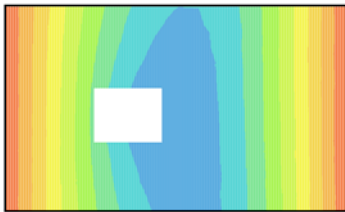
Verformungen u_y [mm]

min u_y = 0.0000 mm, max u_y = 0.0000 mm



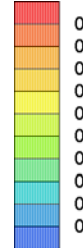
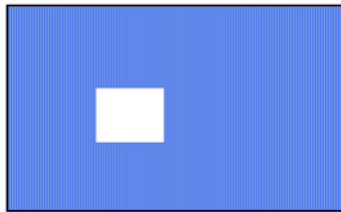
Verformungen u_z [mm]

min u_z = -0.0001 mm, max u_z = 5.0892 mm



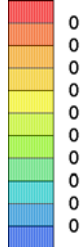
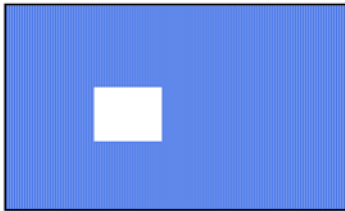
Normalkräfte n_{xx} [kN/m]

min n_{xx} = 0.00 kN/m, max n_{xx} = 0.00 kN/m



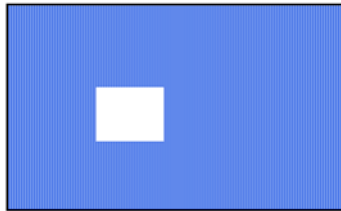
Normalkräfte n_{yy} [kN/m]

min n_{yy} = 0.00 kN/m, max n_{yy} = 0.00 kN/m



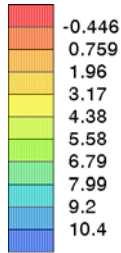
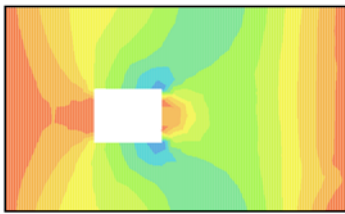
Normalkräfte n_{xy} [kN/m]

min n_{xy} = 0.00 kN/m, max n_{xy} = 0.00 kN/m



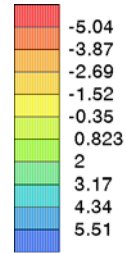
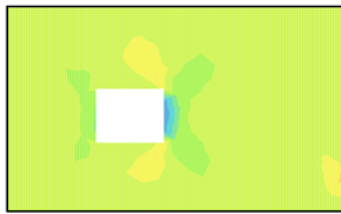
Momente m_{xx} [kN/m]

min m_{xx} = -0.45 kNm/m, max m_{xx} = 10.40 kNm/m



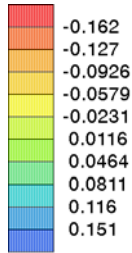
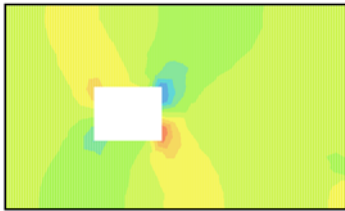
Momente m_{yy} [kN/m]

min m_{yy} = -5.04 kNm/m, max m_{yy} = 5.51 kNm/m



Momente m_{xy} [kN/m]

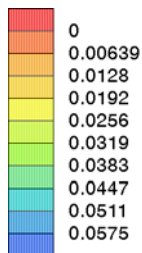
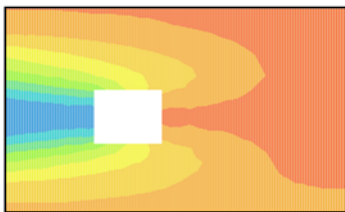
min m_{xy} = -0.16 kNm/m, max m_{xy} = 0.15 kNm/m



4.1.3. 3 : Wind West

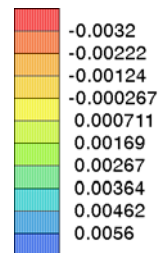
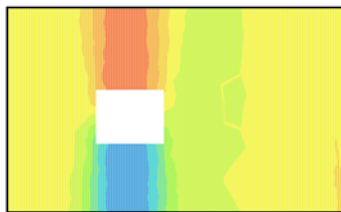
Verformungen u_x [mm]

min u_x = 0.0000 mm, max u_x = 0.0575 mm



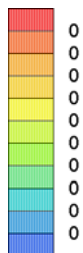
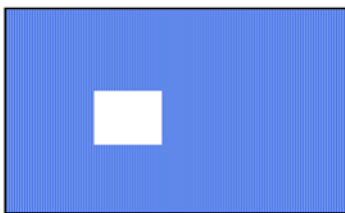
Verformungen u_y [mm]

min u_y = -0.0032 mm, max u_y = 0.0056 mm



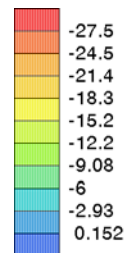
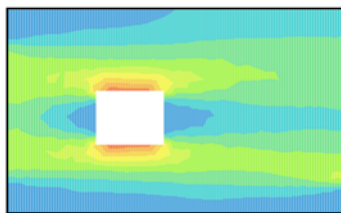
Verformungen u_z [mm]

min u_z = 0.0000 mm, max u_z = 0.0000 mm



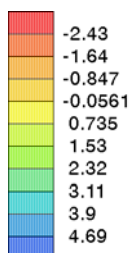
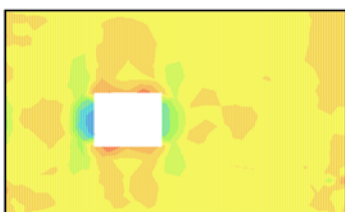
Normalkräfte n_{xx} [kN/m]

min n_{xx} = -27.54 kN/m, max n_{xx} = 0.15 kN/m



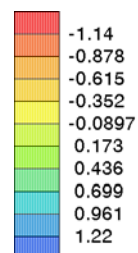
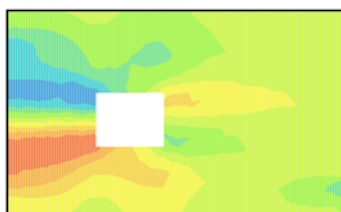
Normalkräfte n_{yy} [kN/m]

min n_{yy} = -2.43 kN/m, max n_{yy} = 4.69 kN/m



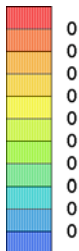
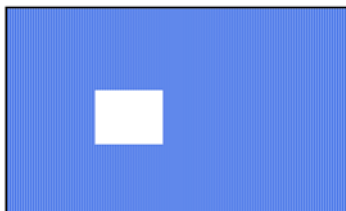
Normalkräfte n_{xy} [kN/m]

min n_{xy} = -1.14 kN/m, max n_{xy} = 1.22 kN/m



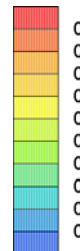
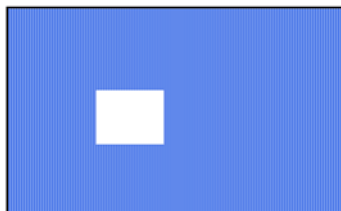
Momente m_{xx} [kN/m]

min m_{xx} = 0.00 kNm/m, max m_{xx} = 0.00 kNm/m



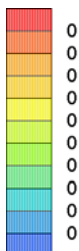
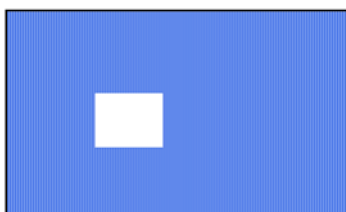
Momente m_{yy} [kN/m]

min m_{yy} = 0.00 kNm/m, max m_{yy} = 0.00 kNm/m



Momente m_{xy} [kN/m]

min m_{xy} = 0.00 kNm/m, max m_{xy} = 0.00 kNm/m



4.2. Linienlagerergebnisse

4.2.1. 1 : Eigengewicht (1)

4.2.2. 2 : Nutzlast

4.2.3. 3 : Wind West

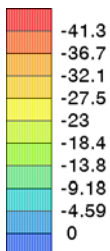
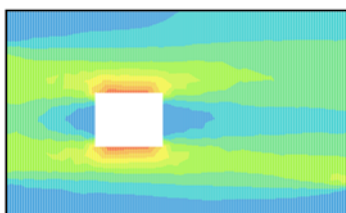
5. Nachweisergebnisse

5.1. EC 5 Tragfähigkeit (Th.I.Ord.)

5.1.1. Zusammenfassung

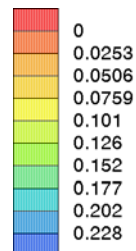
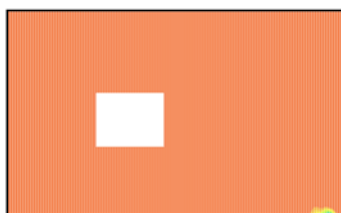
Normalkräfte min n_{xx} [kN/m]

min n_{xx} = -41.31 kN/m, max n_{xx} = 0.00 kN/m



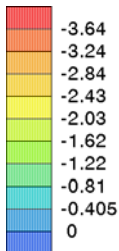
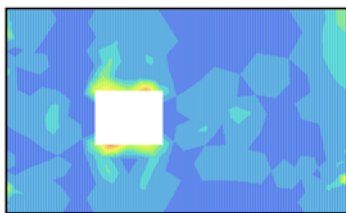
Normalkräfte max n_{xx} [kN/m]

min n_{xx} = 0.00 kN/m, max n_{xx} = 0.23 kN/m



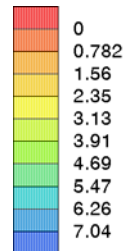
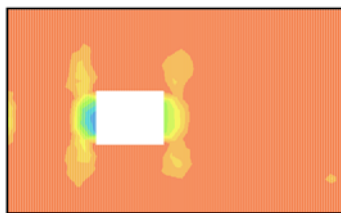
Normalkräfte min n_{yy} [kN/m]

min n_{yy} = -3.65 kN/m, max n_{yy} = 0.00 kN/m



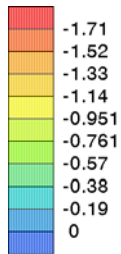
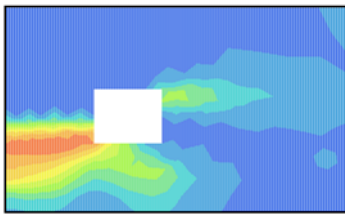
Normalkräfte max n_{yy} [kN/m]

min n_{yy} = 0.00 kN/m, max n_{yy} = 7.04 kN/m

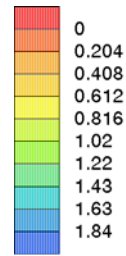
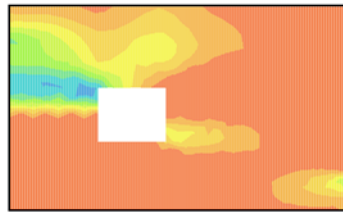


Normalkräfte min n_{xy} [kN/m]

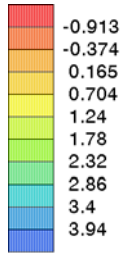
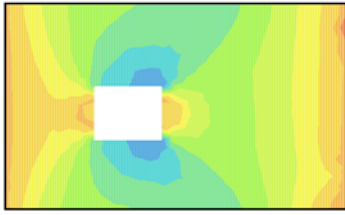
min n_{xy} = -1.71 kN/m, max n_{xy} = 0.00 kN/m



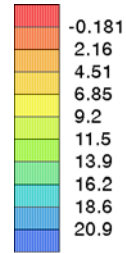
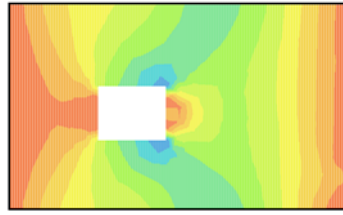
Normalkräfte max n_{xy} [kN/m]
 min n_{xy} = 0.00 kN/m, max n_{xy} = 1.84 kN/m



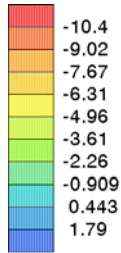
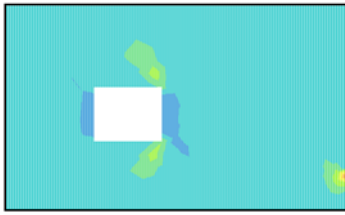
Momente min m_{xx} [kNm/m]
 min m_{xx} = -0.91 kNm/m, max m_{xx} = 3.94 kNm/m



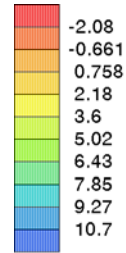
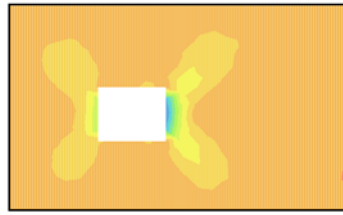
Momente max m_{xx} [kNm/m]
 min m_{xx} = -0.18 kNm/m, max m_{xx} = 20.92 kNm/m



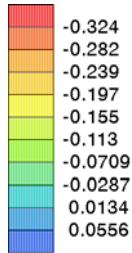
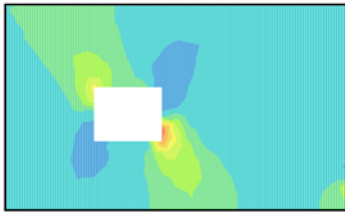
Momente min m_{yy} [kNm/m]
 min m_{yy} = -10.37 kNm/m, max m_{yy} = 1.79 kNm/m



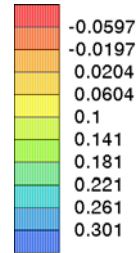
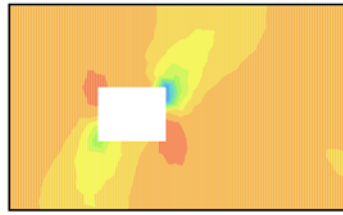
Momente max m_{yy} [kNm/m]
 min m_{yy} = -2.08 kNm/m, max m_{yy} = 10.69 kNm/m



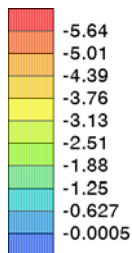
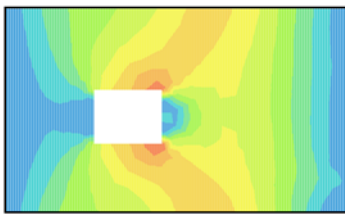
Momente min m_{xy} [kNm/m]
 min m_{xy} = -0.32 kNm/m, max m_{xy} = 0.06 kNm/m



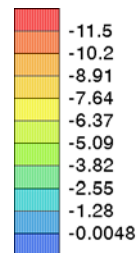
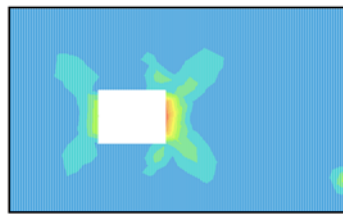
Momente max m_{xy} [kNm/m]
 min m_{xy} = -0.06 kNm/m, max m_{xy} = 0.30 kNm/m



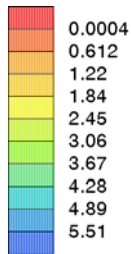
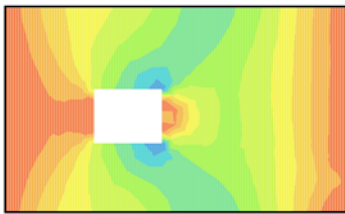
Normalspannungen $\sigma_{xx,min}$ [N/mm²]
 min $\sigma_{xx,min}$ = -5.64 N/mm², max $\sigma_{xx,min}$ = -0.00 N/mm²



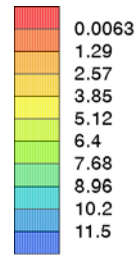
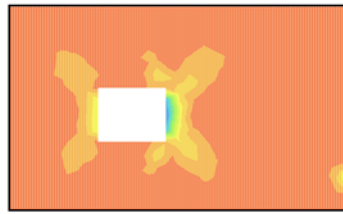
Normalspannungen $\sigma_{yy,min}$ [N/mm²]
 min $\sigma_{yy,min}$ = -11.46 N/mm², max $\sigma_{yy,min}$ = -0.00 N/mm²



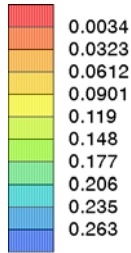
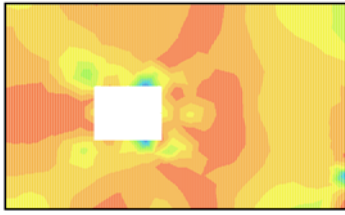
Normalspannungen $\sigma_{xx,max}$ [N/mm²]
 min $\sigma_{xx,max}$ = 0.00 N/mm², max $\sigma_{xx,max}$ = 5.51 N/mm²



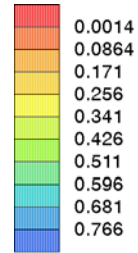
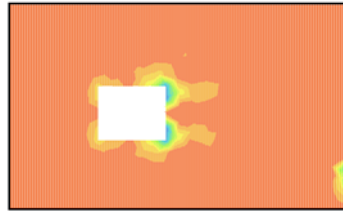
Normalspannungen $\sigma_{yy,min}$ [N/mm²]
 min $\sigma_{yy,max}$ = 0.01 N/mm², max $\sigma_{yy,max}$ = 11.52 N/mm²



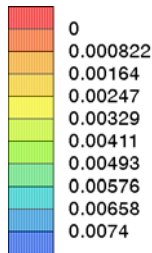
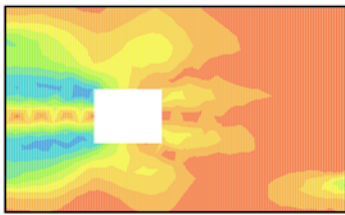
Schubspannungen τ_{xy} [N/mm²]
 min τ_{xy} = 0.00 N/mm², max τ_{xy} = 0.26 N/mm²



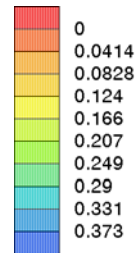
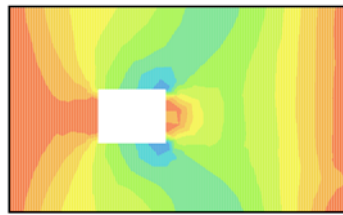
Schubspannungen τ_{yx} [N/mm²]
 min τ_{yx} = 0.00 N/mm², max τ_{yx} = 0.77 N/mm²



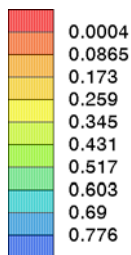
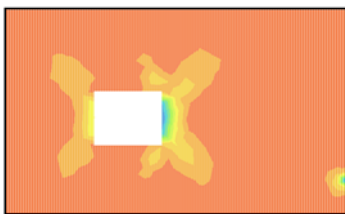
Torsionsschubspannungen τ_{tor} [N/mm²]
 min τ_{tor} = 0.00 N/mm², max τ_{tor} = 0.01 N/mm²



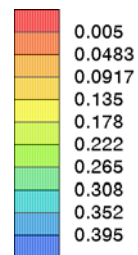
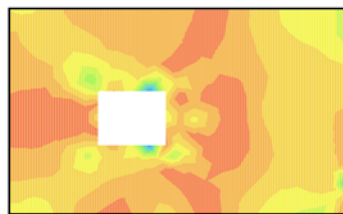
Ausnutzung $U_{\sigma_{xx}}$
 min $U_{\sigma_{xx}}$ = 0.000, max $U_{\sigma_{xx}}$ = 0.373



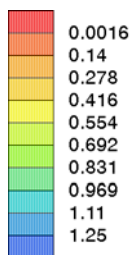
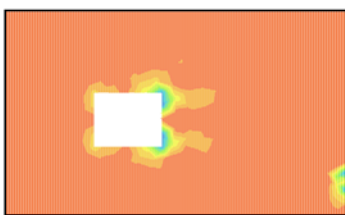
Ausnutzung $U_{\sigma_{yy}}$
 min $U_{\sigma_{yy}}$ = 0.000, max $U_{\sigma_{yy}}$ = 0.776



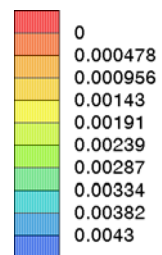
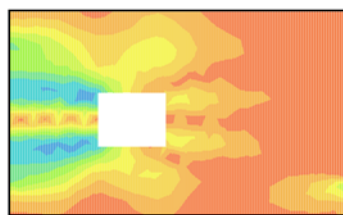
Ausnutzung $U_{\sigma_{yy}}$
 min $U_{\sigma_{yy}}$ = 0.000, max $U_{\sigma_{yy}}$ = 0.776



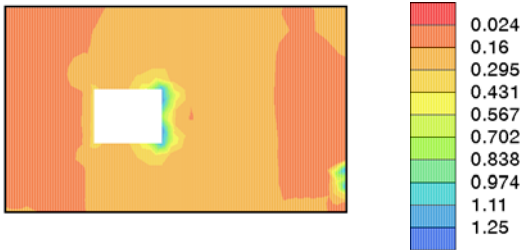
Ausnutzung $U_{\sigma_{yy}}$
 min $U_{\sigma_{yy}}$ = 0.000, max $U_{\sigma_{yy}}$ = 0.776



Ausnutzung $U_{\sigma_{yy}}$
 min $U_{\sigma_{yy}}$ = 0.000, max $U_{\sigma_{yy}}$ = 0.776



Gesamtausnutzung U
 min U = 0.024, max U = 1.245



6. Detailnachweispunkte

POSITION 1, KNOTEN 170 BEI X = 0.01 M, Y = 0.01 M

Querschnittsbeschreibung

Derix X-Lam X-160/5s, Aufbau 40.0-20.0-40.0-20.0-40.0 Nadelvollholz, C24 (S10)
 $d_x = 120.0 \text{ mm}$, $d_y = 40.0 \text{ mm}$, $b = 185 \text{ mm}$ (Brettbr.), $e = 185 \text{ mm}$ (Achsabst.), $I_p = 195225104 \text{ mm}^4$
 $f_{c0,k} = 21.00 \text{ N/mm}^2$, $f_{t0,k} = 14.50 \text{ N/mm}^2$, $f_{v,k} = 2.00 \text{ N/mm}^2$, $f_{tor,k} = 2.50 \text{ N/mm}^2$

Lastfallergebnisse

Nr	u_x	u_y	u_z	n_{xx}	n_{yy}	n_{xy}	q_x	q_y	Bezeichnung
	v_x	v_y	v_z	m_{xx}	m_{yy}	m_{xy}	q_1	σ_b	
	mm	mm	mm	kN/m	kN/m	kN/m	kN/m	kN/m	
	%	%	%	kNm/m	kNm/m	kNm/m	kN/m	kN/m ²	
Einwirkung 1: ständige Lasten									
1	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Eigengewicht (1)
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
Einwirkung 2: veränderliche Einwirkung									
2	0.00	0.00	4.99	0.00	0.00	0.00	2.95	0.54	Nutzlast
	-0.00	0.00	0.00	0.97	2.14	0.04	0.00	0.00	
Einwirkung 3: Wind									
3	0.01	0.00	0.00	-0.68	1.68	-0.20	0.00	0.00	Wind West
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Nachweis 1: EC 5 Tragfähigkeit (Th.I.Ord.)

Ergebnisse der Lastkombinationen

Typ	u_x	u_y	u_z	n_{xx}	n_{yy}	n_{xy}	q_x	q_y	Faktorisierung
	v_x	v_y	v_z	m_{xx}	m_{yy}	m_{xy}	q_1	σ_b	
	mm	mm	mm	kN/m	kN/m	kN/m	kN/m	kN/m	
	%	%	%	kNm/m	kNm/m	kNm/m	kN/m	kN/m ²	
Extremierung 1: Fall 1 (kmod=0.60)									
min u_x	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max u_x	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min u_y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max u_y	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min u_z	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max u_z	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min v_x	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
max v_x	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
min v_y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max v_y	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min v_z	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max v_z	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min n_{xx}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max n_{xx}	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	1.35*Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	
min n_{yy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	Lf1
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	
max n_{yy}	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	Lf1
	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	

Ergebnisse der Lastkombinationen

Typ	u _x	u _y	u _z	n _{xx}	n _{yy}	n _{xy}	q _x	q _y	Faktorisierung
	v _x mm ‰	v _y mm ‰	v _z mm ‰	m _{xx} kN/m kNm/m	m _{yy} kN/m kNm/m	m _{xy} kN/m kNm/m	q ₁ kN/m kN/m	σ _{bz} kN/m ²	
min n _{xy}	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max n _{xy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min m _{xx}	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max m _{xx}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min m _{yy}	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max m _{yy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min m _{xy}	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max m _{xy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min q _x	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max q _x	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min q _y	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max q _y	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
min σ _{bz}	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max σ _{bz}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	
max q ₁	-0.00	0.00	0.00	0.39	0.77	0.02	0.00	0.00	1.35*Lf1
	0.00	0.00	2.65	0.00	0.00	0.00	1.06	0.06	

Extremierung 2: Fall 2 (kmod=0.80)

min u _x	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max u _x	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min u _y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max u _y	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min u _z	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
max u _z	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min v _x	0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max v _x	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min v _y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max v _y	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min v _z	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
max v _z	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min n _{xx}	0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max n _{xx}	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min n _{yy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max n _{yy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min n _{xy}	0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
max n _{xy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min m _{xx}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max m _{xx}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min m _{yy}	0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
max m _{yy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min m _{xy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
max m _{xy}	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
min q _x	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
max q _x	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min q _y	0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max q _y	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2



Ergebnisse der Lastkombinationen

Typ	u _x v _x mm %	u _y v _y mm %	u _z v _z mm %	n _{xx} m _{xx} kN/m kNm/m	n _{yy} m _{yy} kN/m kNm/m	n _{xy} m _{xy} kN/m kNm/m	q _x q ₁ kN/m kN/m	q _y q _{bz} kN/m kN/m ²	Faktorisierung
min σ _{bz}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max σ _{bz}	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
max q ₁	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
Extremierung 3: Fall 3 (kmod=1.00)									
min u _x	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max u _x	0.01	0.00	8.63	-1.02	2.52	-0.30	4.60	0.71	
	-0.00	0.00	0.00	1.56	3.34	0.07	0.00	0.00	1.35*Lf1+0.8*1.5*Lf2+1.5*Lf3
min u _y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max u _y	0.01	0.00	8.63	-1.02	2.52	-0.30	4.60	0.71	
	-0.00	0.00	0.00	1.56	3.34	0.07	0.00	0.00	1.35*Lf1+0.8*1.5*Lf2+1.5*Lf3
min u _z	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max u _z	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min v _x	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
max v _x	0.01	0.00	1.96	-0.61	1.51	-0.18	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1+0.6*1.5*Lf3
min v _y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max v _y	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min v _z	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max v _z	0.01	0.00	8.63	-1.02	2.52	-0.30	4.60	0.71	
	-0.00	0.00	0.00	1.56	3.34	0.07	0.00	0.00	1.35*Lf1+0.8*1.5*Lf2+1.5*Lf3
min n _{xx}	0.01	0.00	1.96	-1.02	2.52	-0.30	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1+1.5*Lf3
max n _{xx}	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min n _{yy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max n _{yy}	0.01	0.00	8.63	-1.02	2.52	-0.30	4.60	0.71	
	-0.00	0.00	0.00	1.56	3.34	0.07	0.00	0.00	1.35*Lf1+0.8*1.5*Lf2+1.5*Lf3
min n _{xy}	0.01	0.00	1.96	-1.02	2.52	-0.30	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1+1.5*Lf3
max n _{xy}	0.00	0.00	10.12	0.00	0.00	0.00	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2
min m _{xx}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max m _{xx}	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min m _{yy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max m _{yy}	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min m _{xy}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max m _{xy}	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min q _x	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max q _x	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min q _y	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max q _y	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
min σ _{bz}	0.00	0.00	1.96	0.00	0.00	0.00	0.79	0.05	
	-0.00	0.00	0.00	0.29	0.57	0.01	0.00	0.00	Lf1
max σ _{bz}	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
max q ₁	0.01	0.00	10.12	-0.61	1.51	-0.18	5.49	0.88	
	-0.00	0.00	0.00	1.85	3.99	0.08	0.00	0.00	1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3

Nachweis der Lastkombinationen

Extremierung 1/1: min n_{xx}

Schnittgrößen: n_{xx} = 0.00 N/mm, n_{yy} = 0.00 N/mm, n_{xy} = 0.00 N/mm, m_{xx} = 0.29 N/mm, m_{yy} = 0.57 Nmm/mm, m_{xy} = 0.00 N/mm², α_{yy} = 0.000 N/mm², γ = 1.30, f_{c0,d} = 9.692 N/mm², f_{t0,d} = 6.692 N/mm²

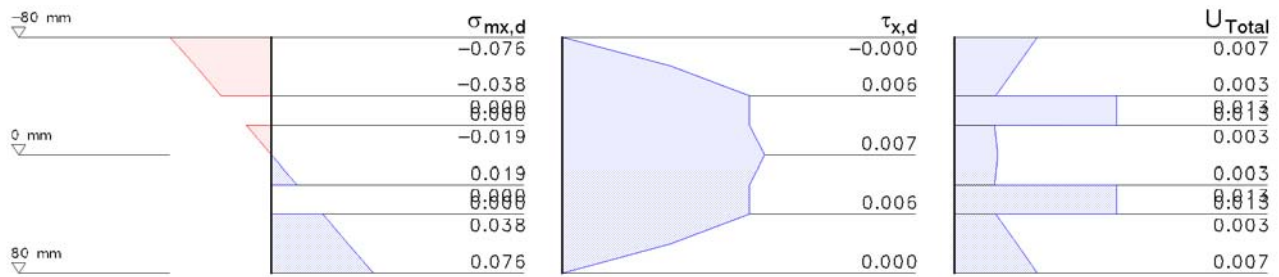
U_{σx} = 0.000, U_{σy} = 0.000 ⇒ U_σ = 0.000

τ_{xy} = 0.000 N/mm², τ_{yx} = 0.000 N/mm², f_{v,d} = 0.923 N/mm²

U_{τxy} = 0.000, U_{τyx} = 0.000 ⇒ U_τ = 0.000

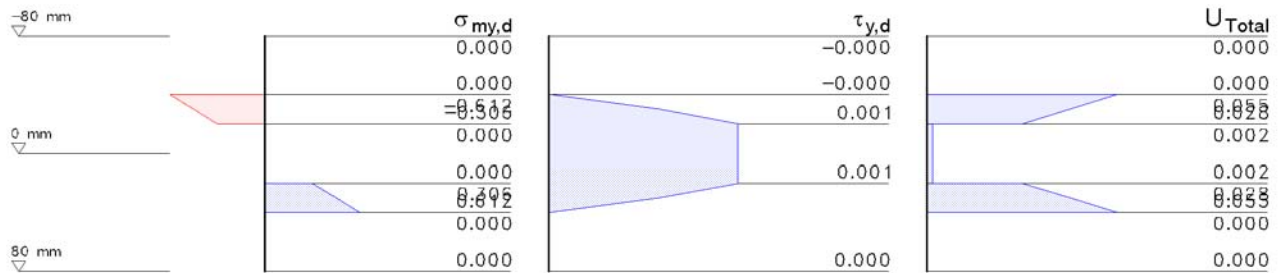
n_{xy} = 0.000 N/mm², M_φ = 0.000 Nmm, τ_{tor} = 0.000 N/mm², f_{tor,d} = 1.154 N/mm², U_{tor} = 0.000

⇒ U = 0.000



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max n_{xx}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.39$ N/mm, $m_{yy} = 0.77$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²

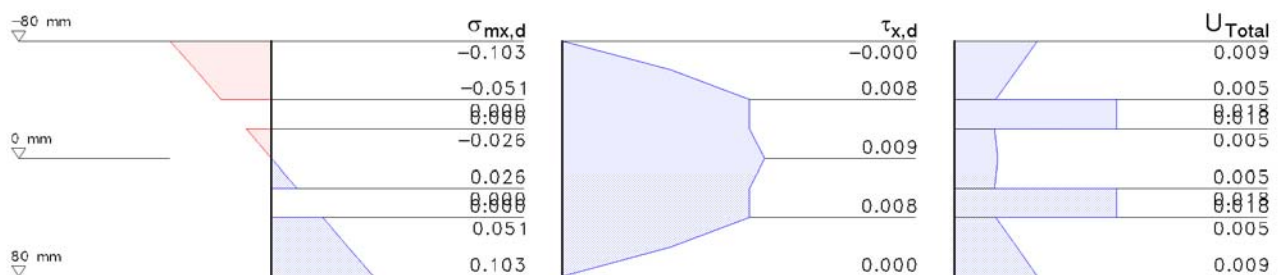
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

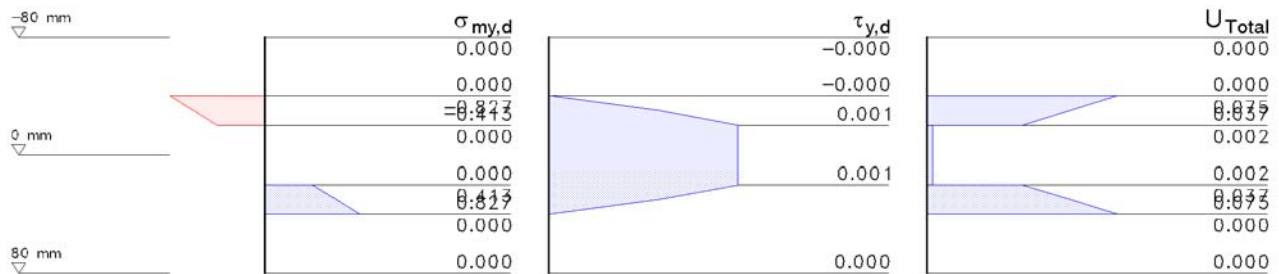
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						

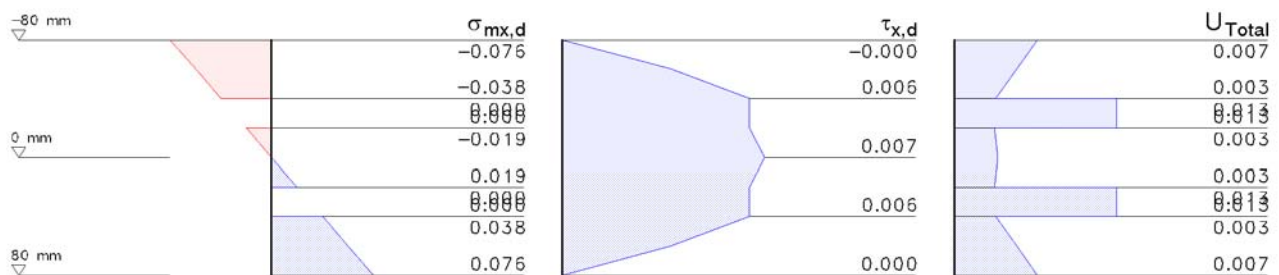


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

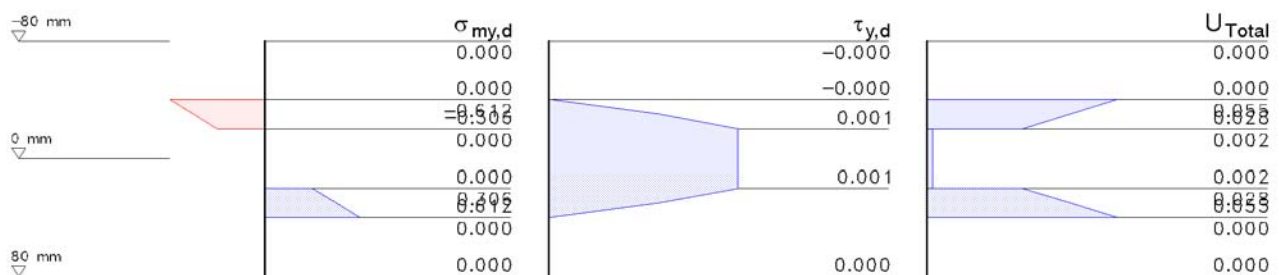
Extremierung 1/1: min n_{yy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ Nmm/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.00$ Nmm/mm
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max n_{yy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.39$ Nmm/mm, $m_{yy} = 0.77$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²

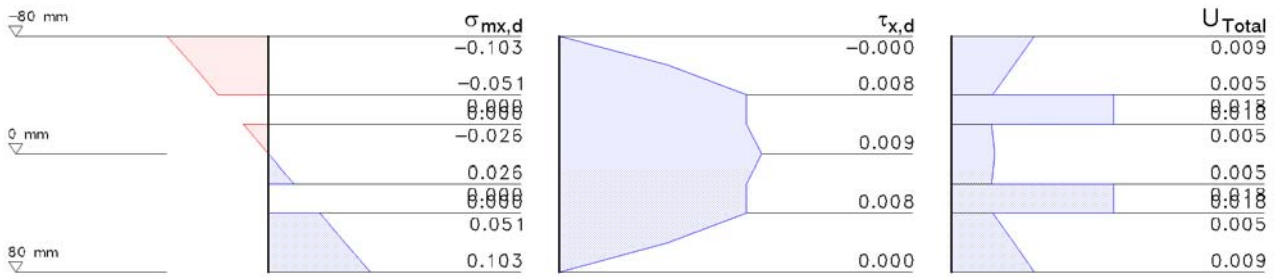
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

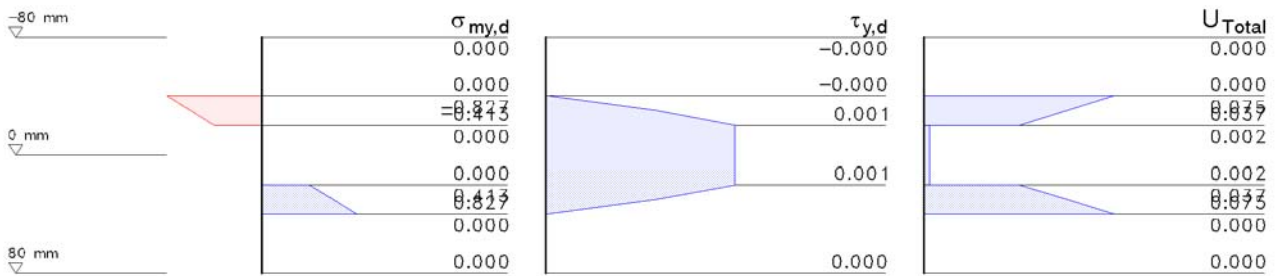
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: min n_{xy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ Nmm/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²

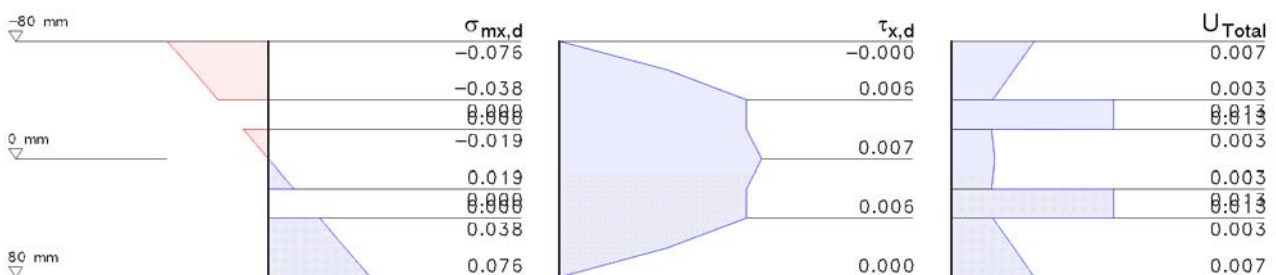
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

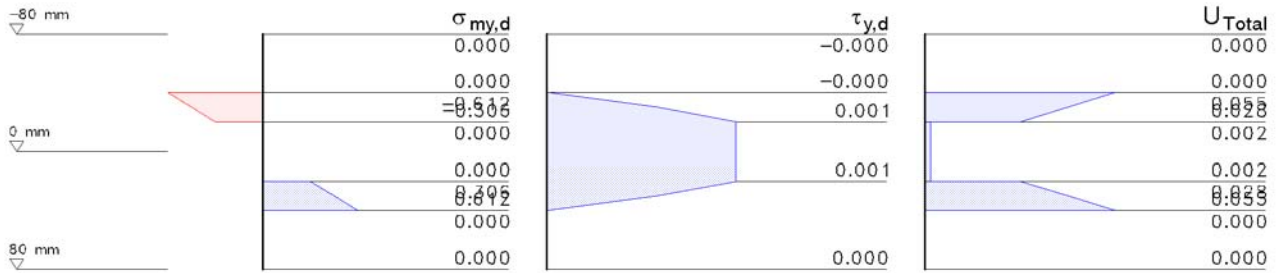
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max n_{xy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.39 \text{ N/mm}$, $m_{yy} = 0.77 \text{ Nmm/mm}$, $m_{xy} = 0$.

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$

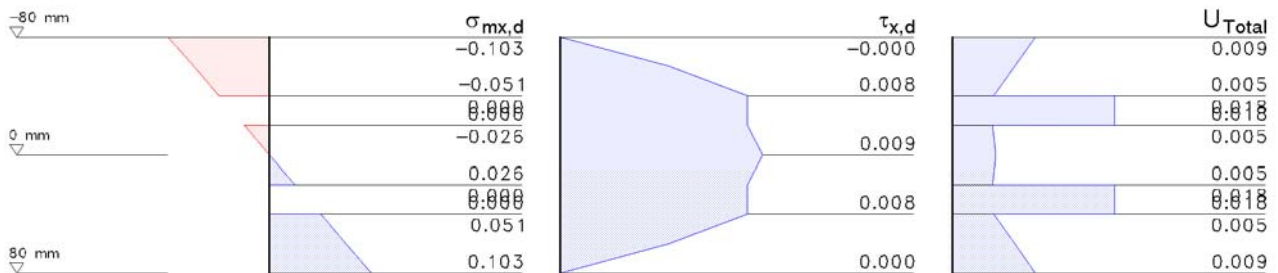
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

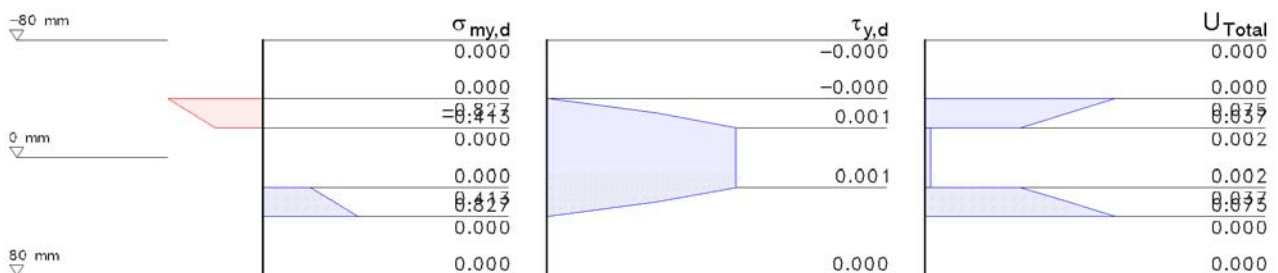
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						

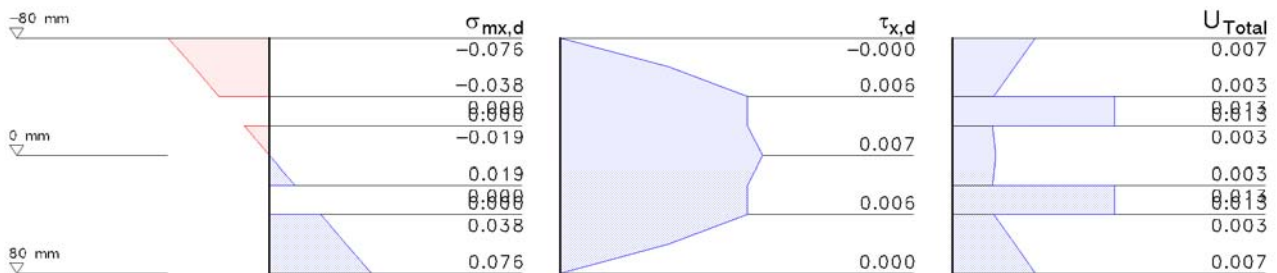


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

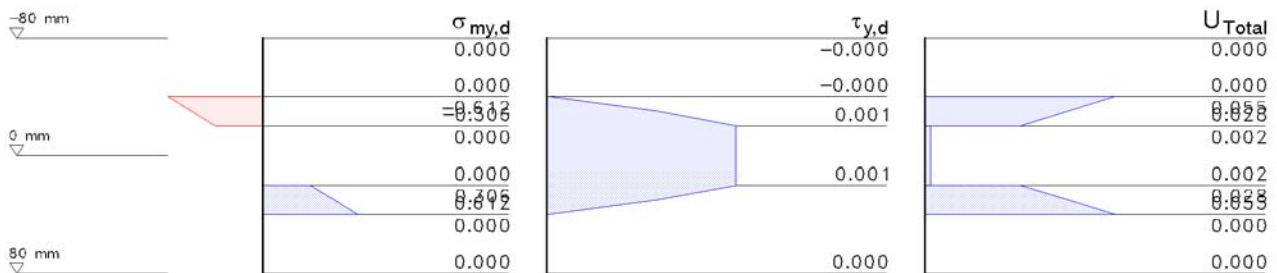
Extremierung 1/1: min m_{xx}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.0$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						



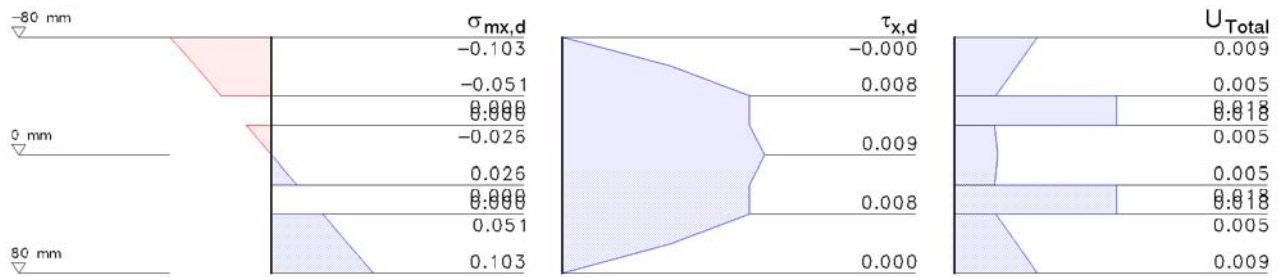
Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max m_{xx}

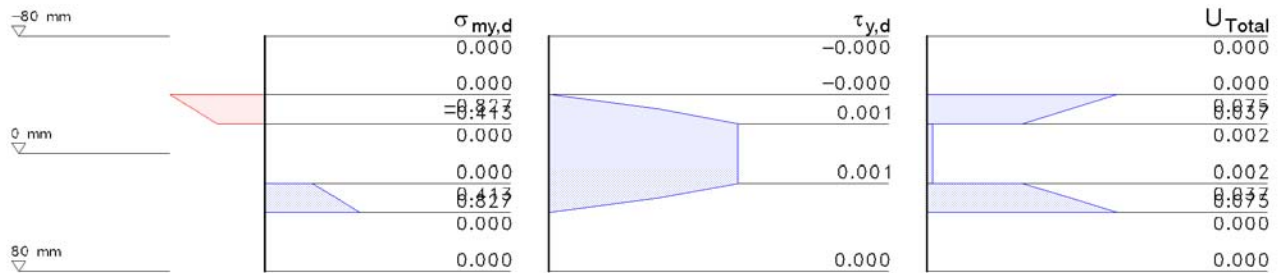
Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.39 \text{ Nmm}$, $m_{yy} = 0.77 \text{ Nmm/mm}$, $m_{xy} = 0.0$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$





Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						

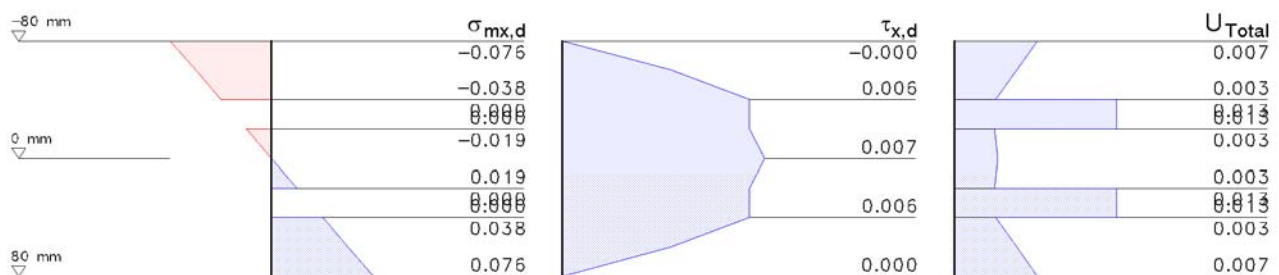


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

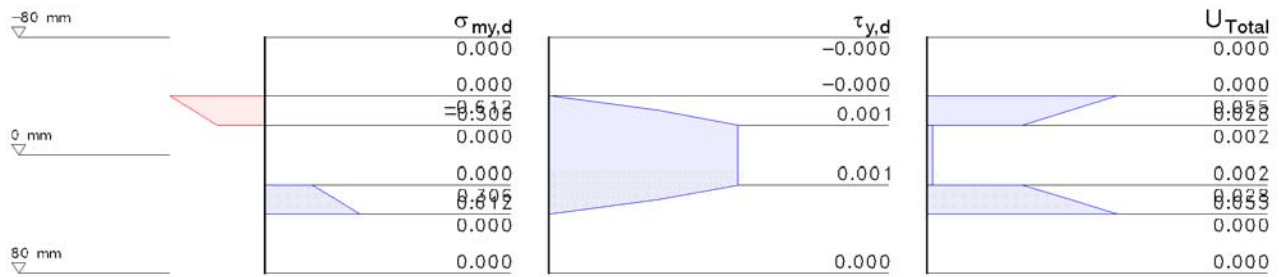
Extremierung 1/1: min m_{yy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.0$.
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						

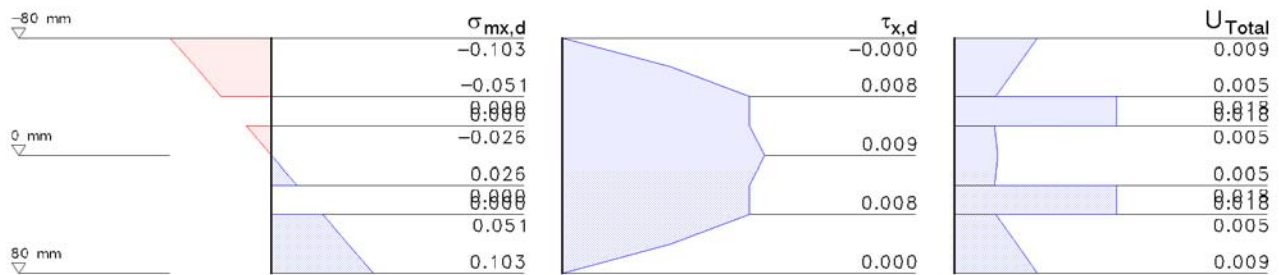


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

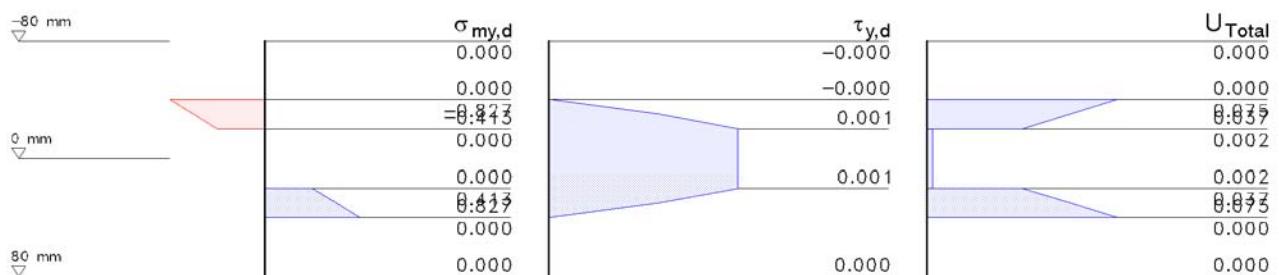
Extremierung 1/1: max m_{yy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.39$ Nmm/mm, $m_{yy} = 0.77$ Nmm/mm, $m_{xy} = 0.00$ Nmm/mm
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: min m_{xy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ Nmm/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.00$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²

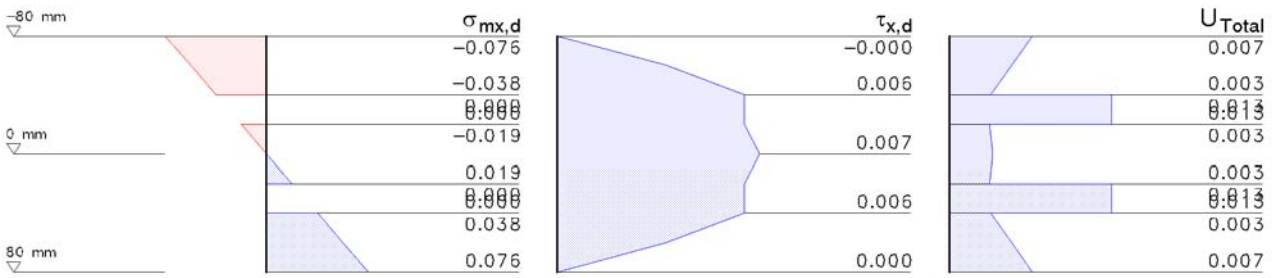
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

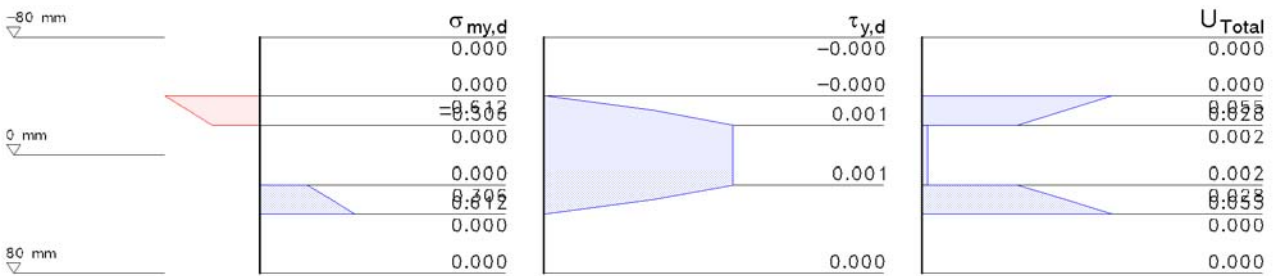
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max m_{xy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.39$ Nmm/mm, $m_{yy} = 0.77$ Nmm/mm, $m_{xy} = 0.00$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²

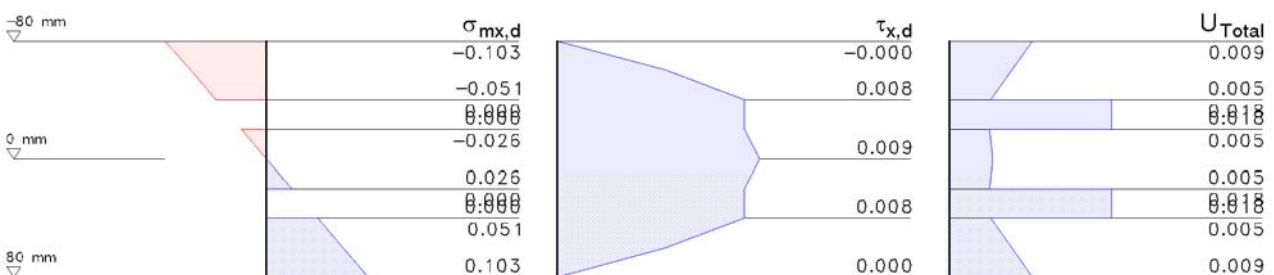
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

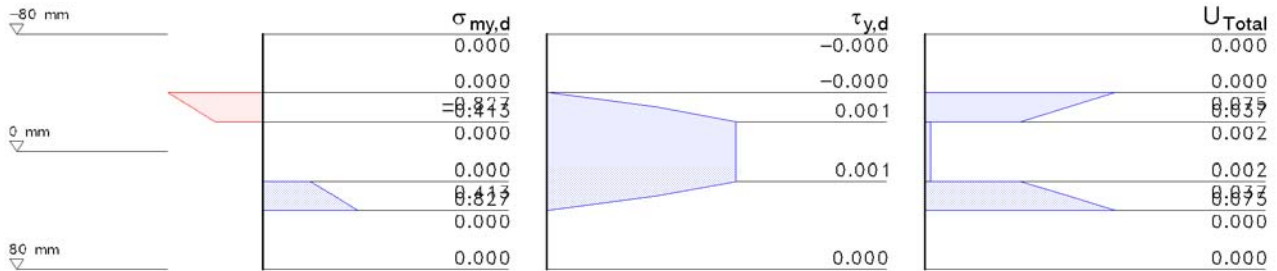
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: min q_x

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ N/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0$.

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$

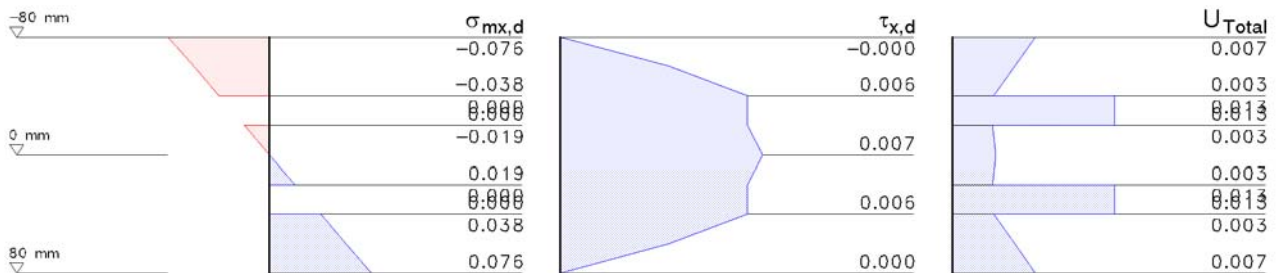
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

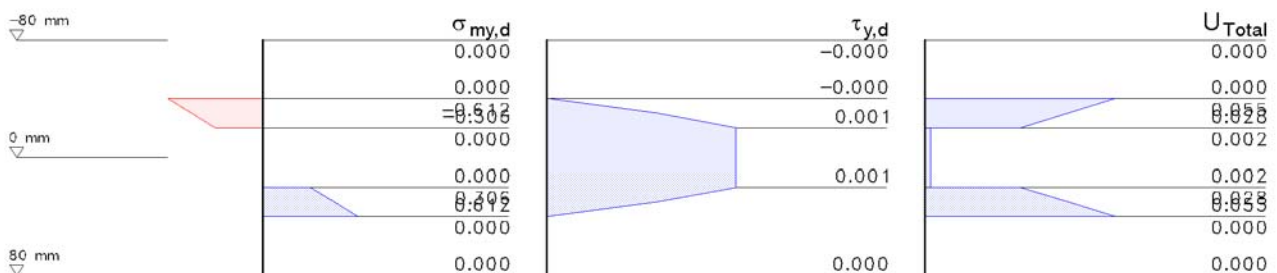
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						

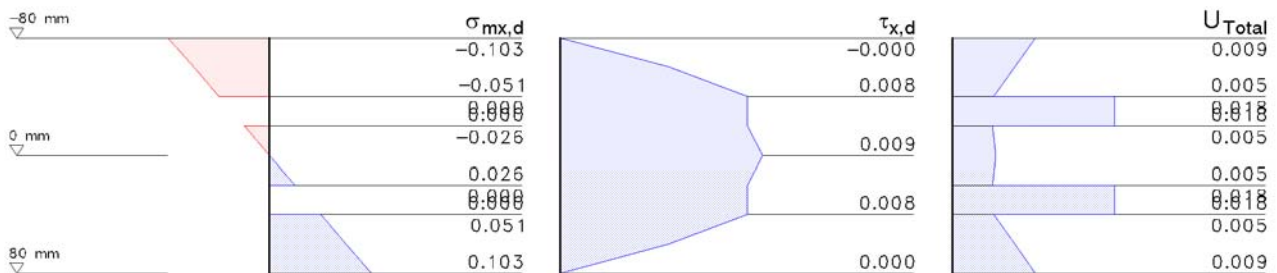


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

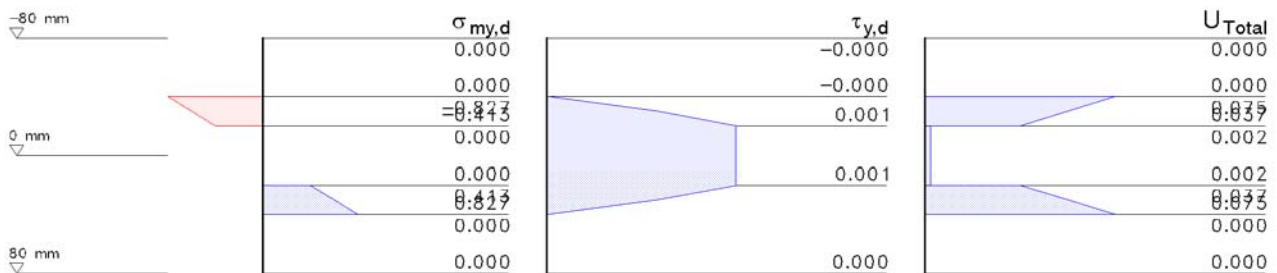
Extremierung 1/1: max q_x

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.39 \text{ Nmm}$, $m_{yy} = 0.77 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						

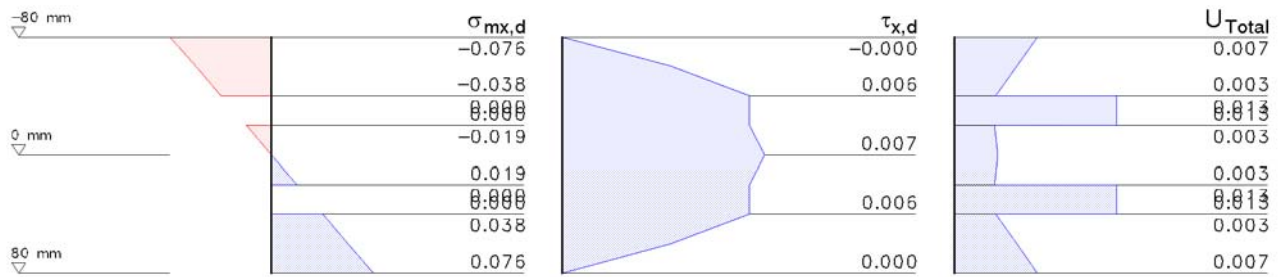


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

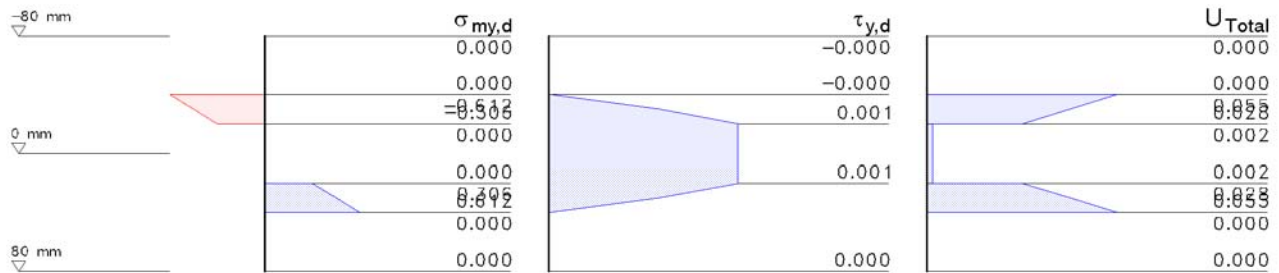
Extremierung 1/1: min q_y

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 9.692 \text{ N/mm}^2$, $f_{t0,d} = 6.692 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 0.923 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.154 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.006	0.46
60.0	-15.400	0.057	11.08	0.004	1.85	-30.0	-26.400	0.000	11.08	0.006	0.46
40.0	-26.400	0.000	11.08	0.006	0.46	-40.0	-26.400	-0.038	11.08	0.006	1.85
30.0	-26.400	0.000	11.08	0.006	0.46	-60.0	-15.400	-0.057	11.08	0.004	1.85
20.0	-26.400	0.019	11.08	0.006	1.85	-80.0	0.000	-0.076	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.007	1.85						

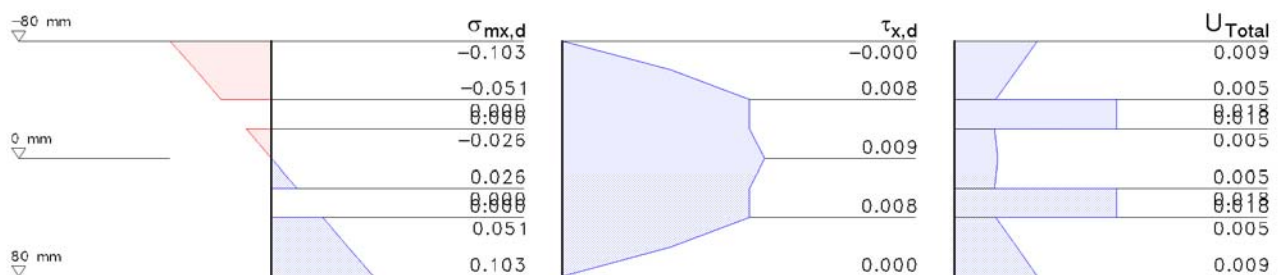


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.306	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.459	11.08	0.000	1.85
40.0	-26.400	0.612	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.459	11.08	0.000	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

Extremierung 1/1: max q_y

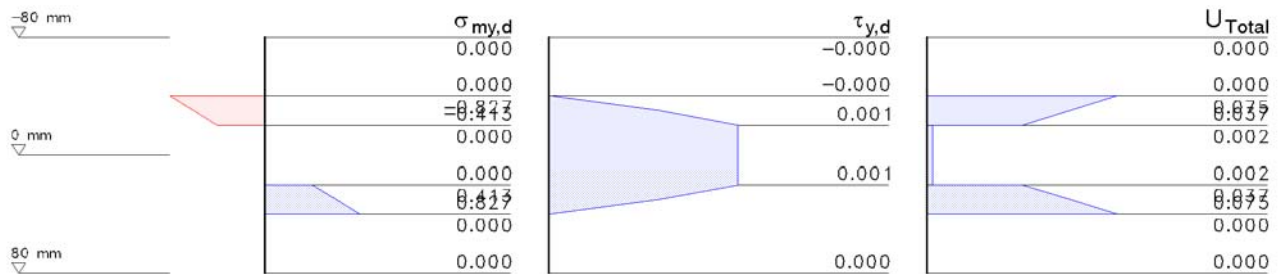
Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.39$ N/mm, $m_{yy} = 0.77$ Nmm/mm, $m_{xy} = 0$.
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 9.692$ N/mm², $f_{t0,d} = 6.692$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 0.923$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.154$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.103	11.08	0.000	1.85	-20.0	-26.400	0.000	11.08	0.008	0.46
60.0	-15.400	0.077	11.08	0.005	1.85	-30.0	-26.400	0.000	11.08	0.008	0.46
40.0	-26.400	0.000	11.08	0.008	0.46	-40.0	-26.400	-0.051	11.08	0.008	1.85
30.0	-26.400	0.000	11.08	0.008	0.46	-60.0	-15.400	-0.077	11.08	0.005	1.85
20.0	-26.400	0.026	11.08	0.008	1.85	-80.0	0.000	-0.103	11.08	-0.000	1.85
0.0	-28.600	0.000	11.08	0.009	1.85						



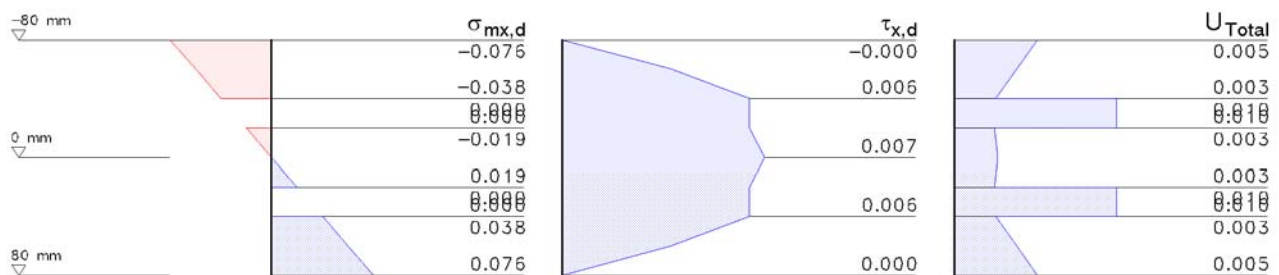


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	11.08	0.000	0.46	-20.0	-26.400	-0.413	11.08	0.001	1.85
60.0	-15.400	0.000	11.08	0.000	0.46	-30.0	-26.400	-0.620	11.08	0.001	1.85
40.0	-26.400	0.827	11.08	0.000	1.85	-40.0	-26.400	0.000	11.08	-0.000	0.46
30.0	-26.400	0.620	11.08	0.001	1.85	-60.0	-15.400	0.000	11.08	-0.000	0.46
20.0	-26.400	0.000	11.08	0.001	0.46	-80.0	0.000	0.000	11.08	-0.000	0.46
0.0	-28.600	0.000	11.08	0.001	0.46						

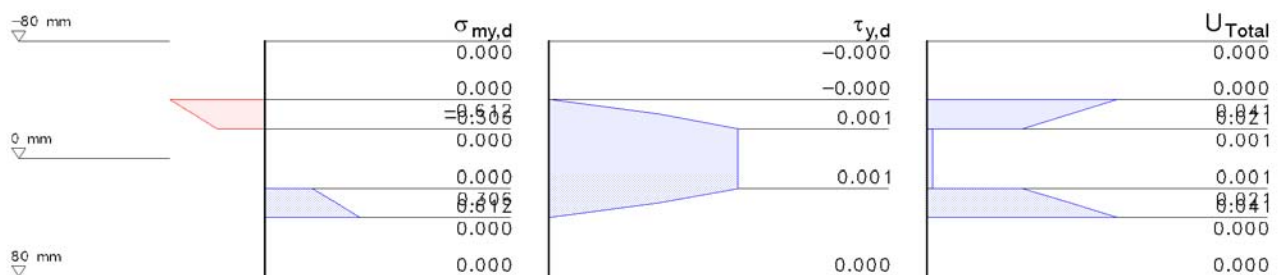
Extremierung 1/2: $\min n_{xx}$

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max n_{xx}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 1.85$ N/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²

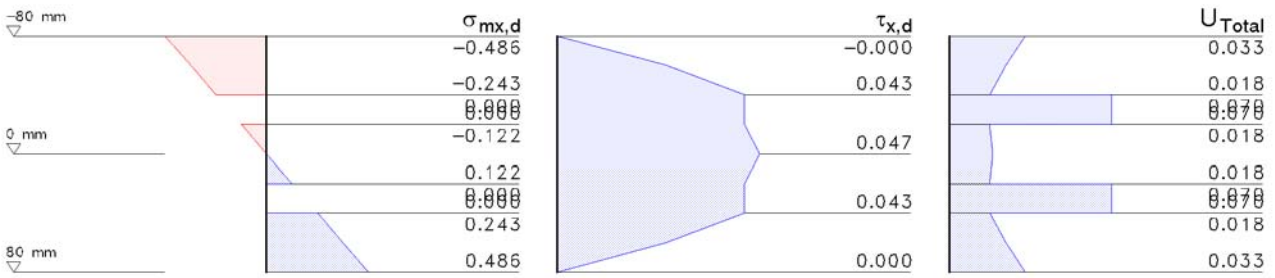
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

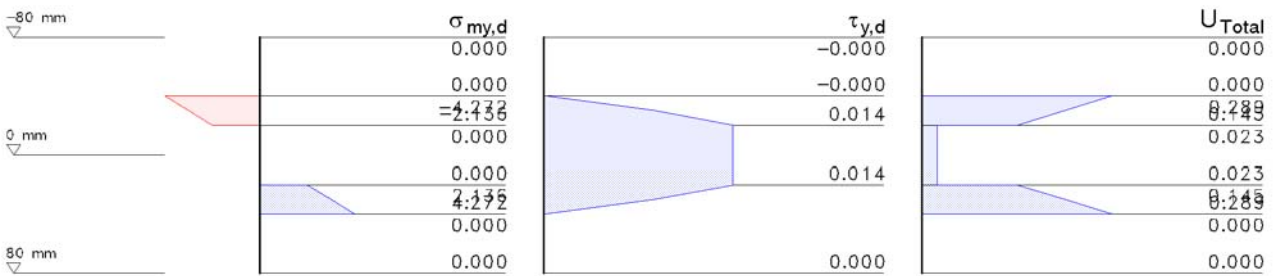
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

Extremierung 1/2: min n_{yy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²

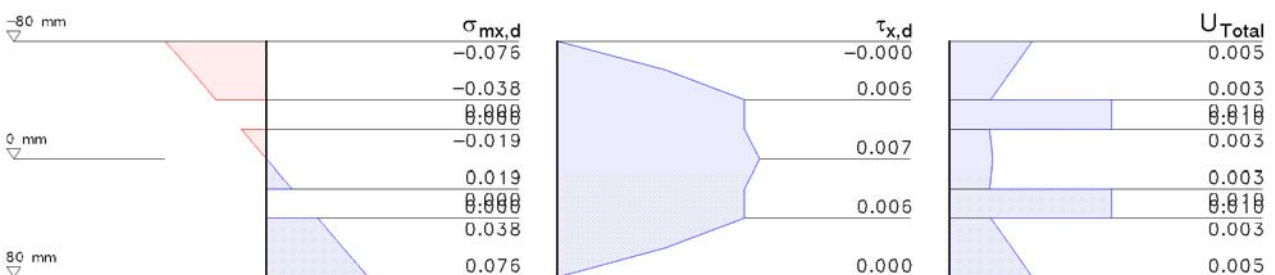
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

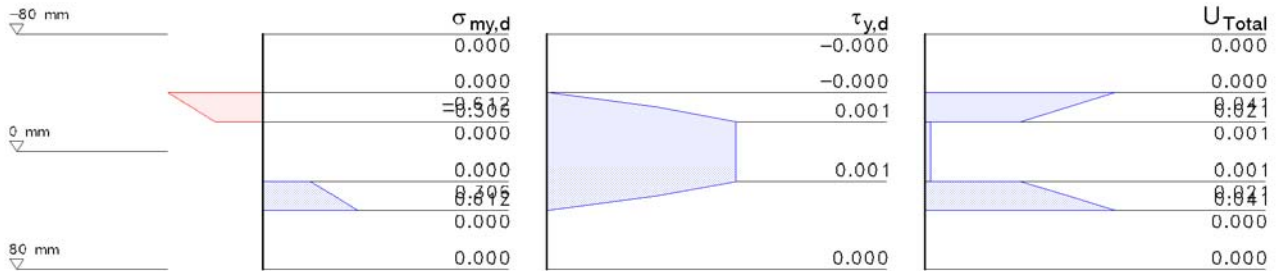
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max n_{yy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 1.85 \text{ N/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0$.

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$

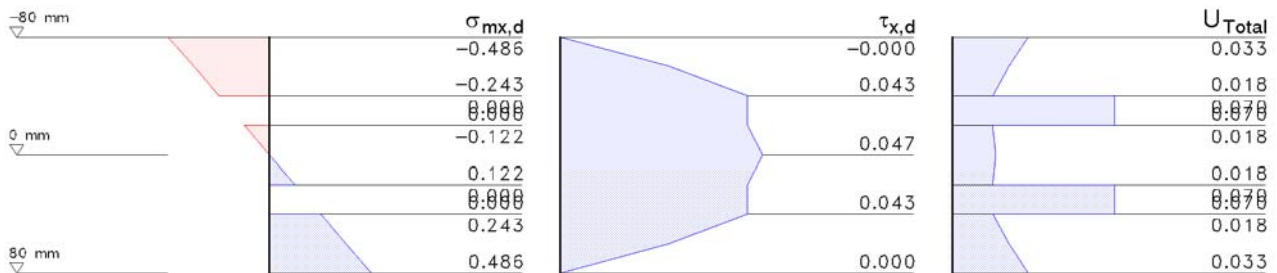
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

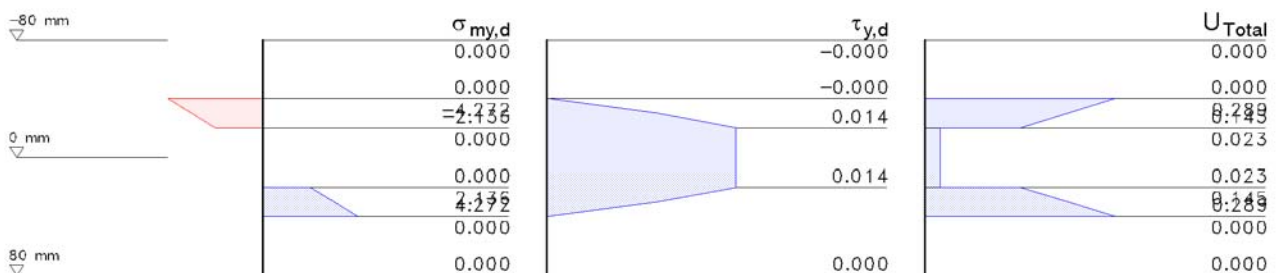
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						

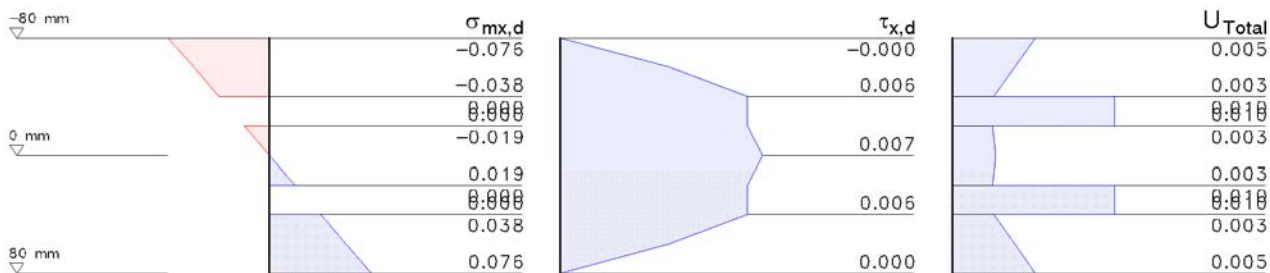


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

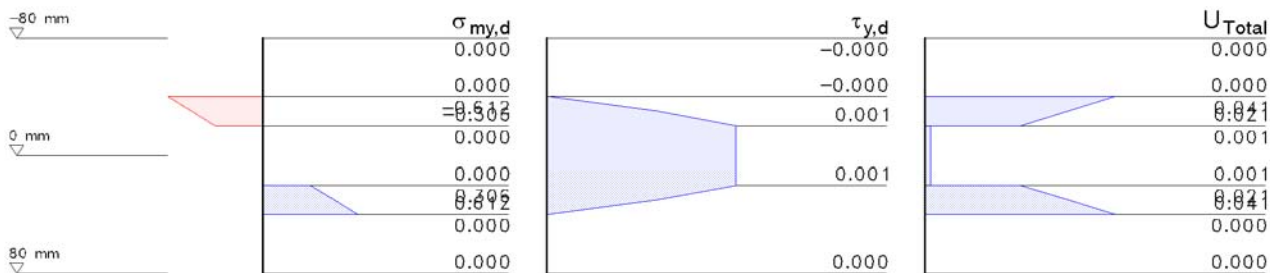
Extremierung 1/2: min n_{xy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



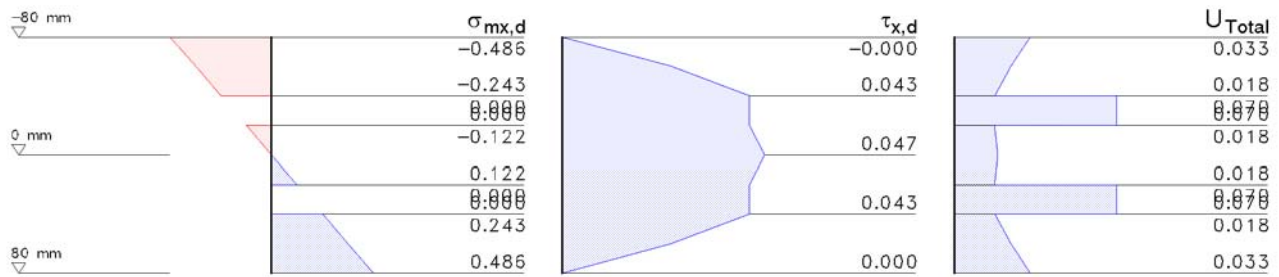
Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max n_{xy}

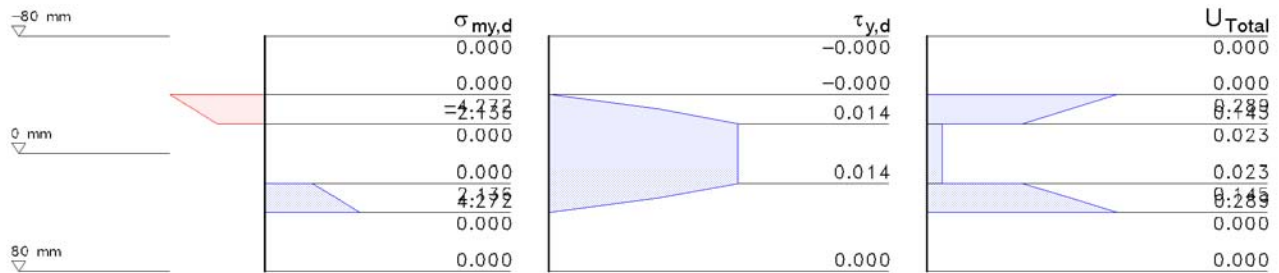
Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 1.85 \text{ Nmm/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$





Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						

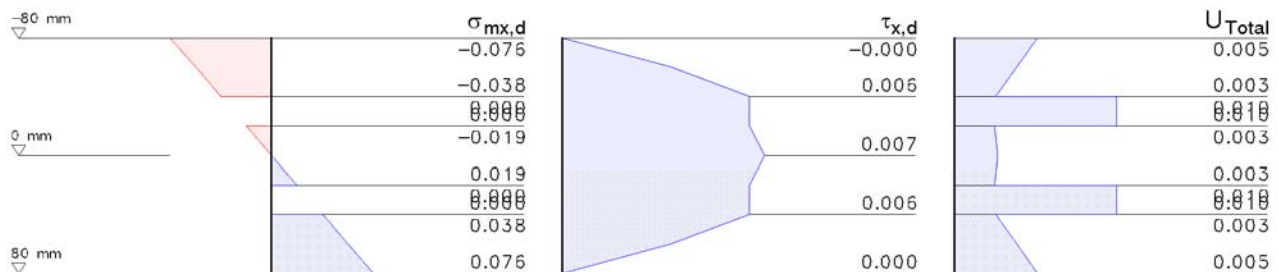


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

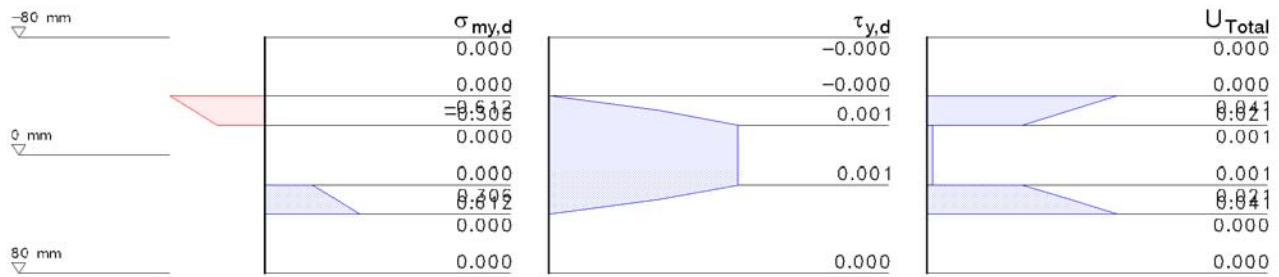
Extremierung 1/2: min m_{xx}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0$.
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						

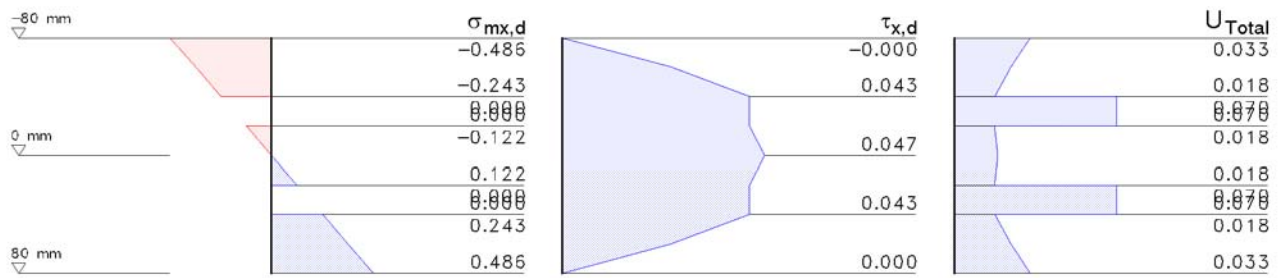


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

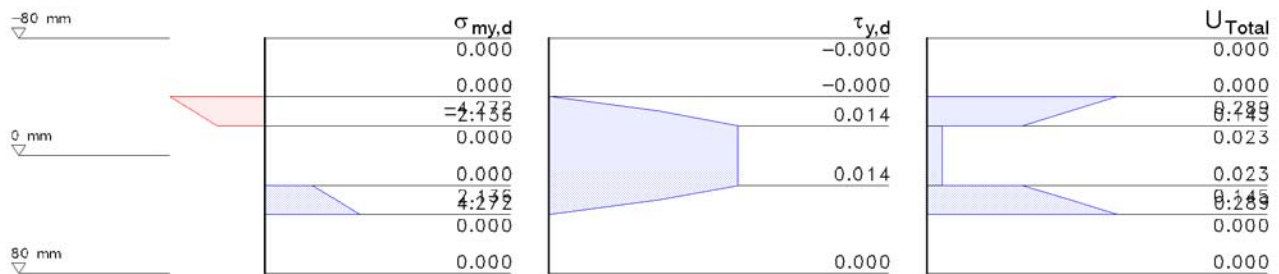
Extremierung 1/2: max m_{xx}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 1.85$ N/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = 0.00$.
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

Extremierung 1/2: min m_{yy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ N/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.$

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$

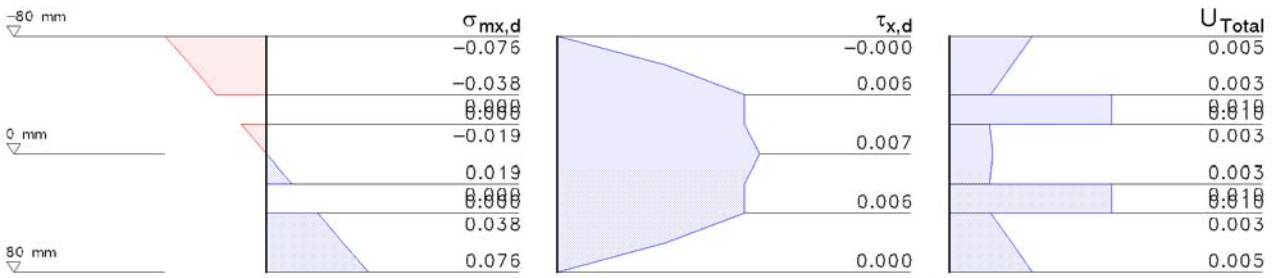
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

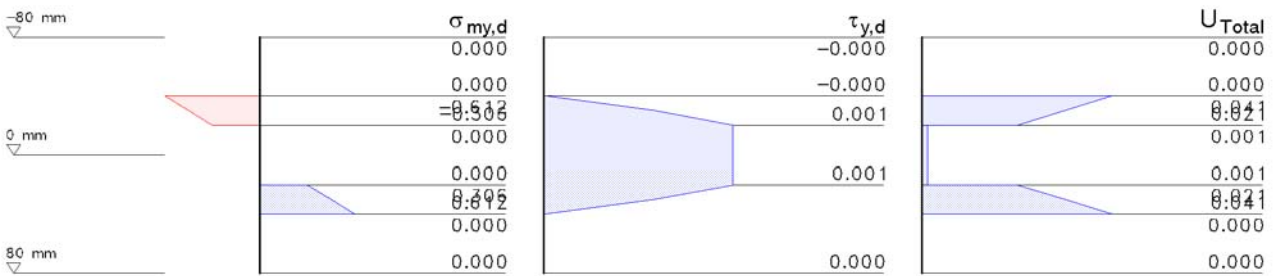
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max m_{yy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 1.85 \text{ N/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0.$

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$

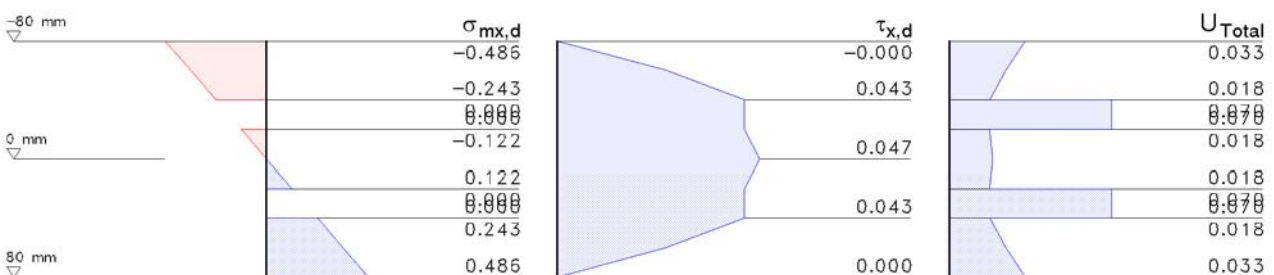
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

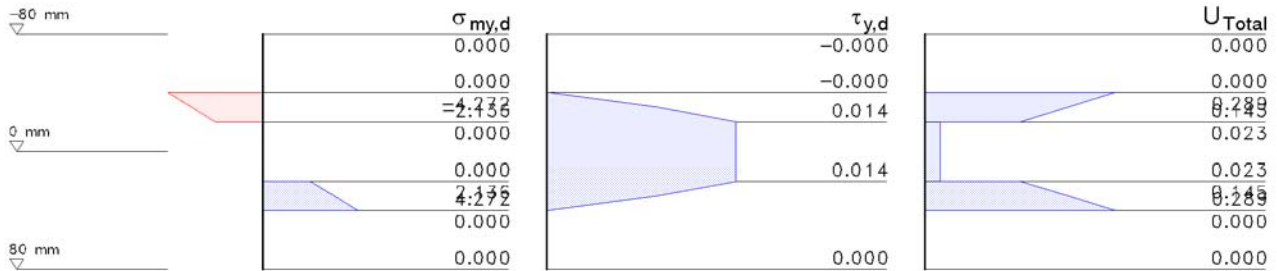
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

Extremierung 1/2: $\min m_{xy}$

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ N/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0$.

$\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$

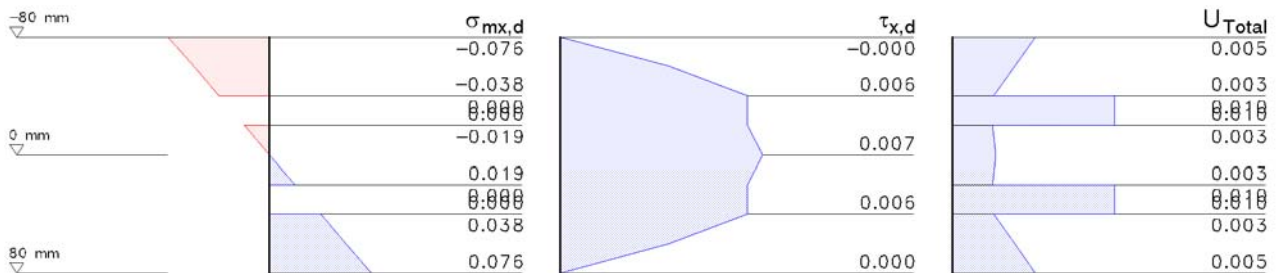
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

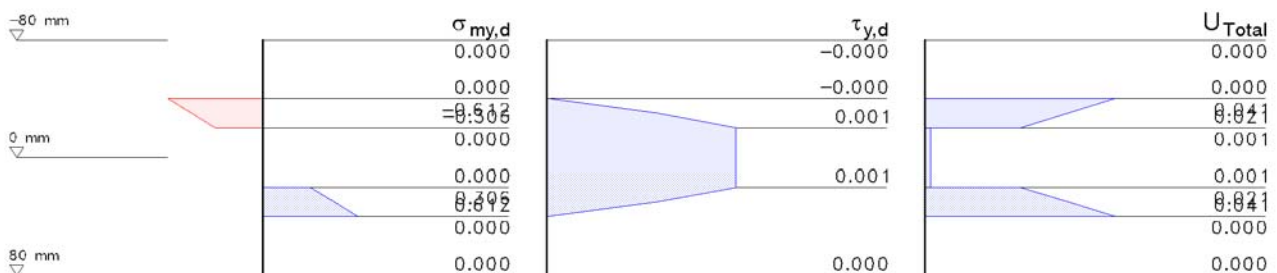
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						

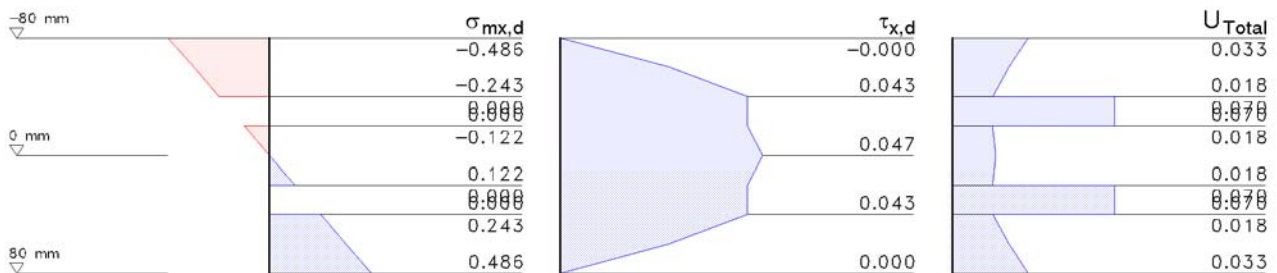


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

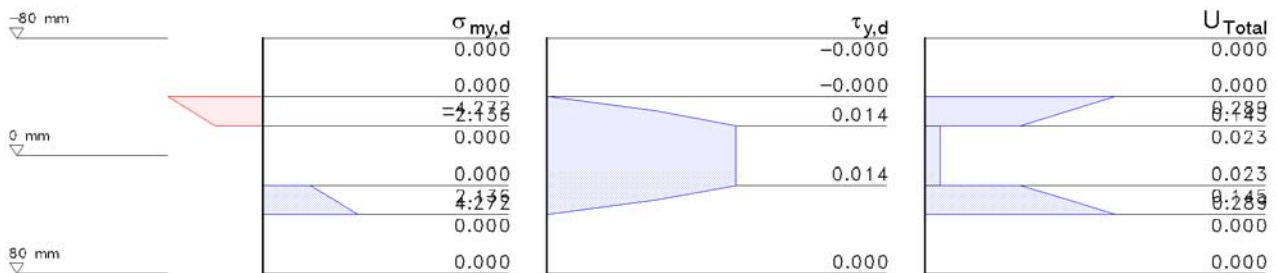
Extremierung 1/2: max m_{xy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 1.85 \text{ Nmm/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						



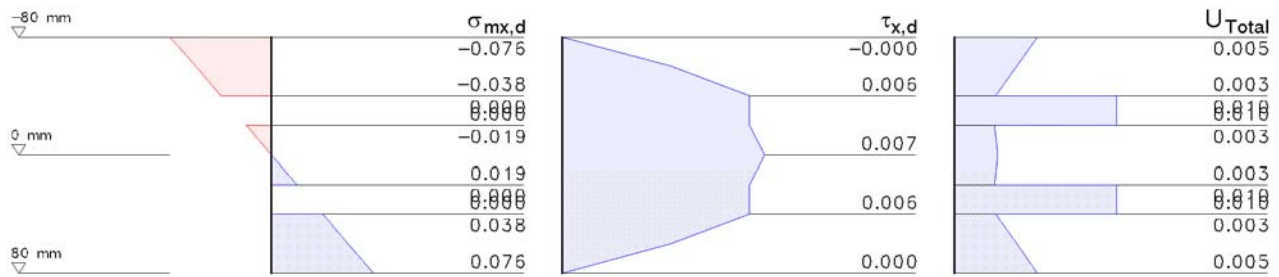
Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

Extremierung 1/2: min q_x

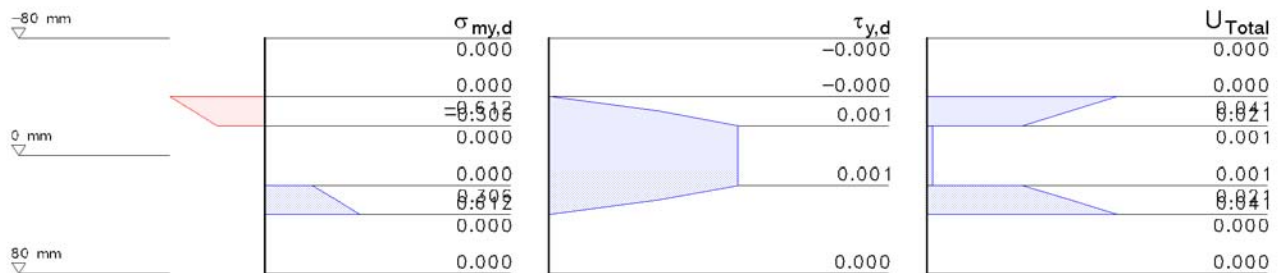
Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 12.923 \text{ N/mm}^2$, $f_{t0,d} = 8.923 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.231 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.538 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$





Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max q_x

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 1.85$ N/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²

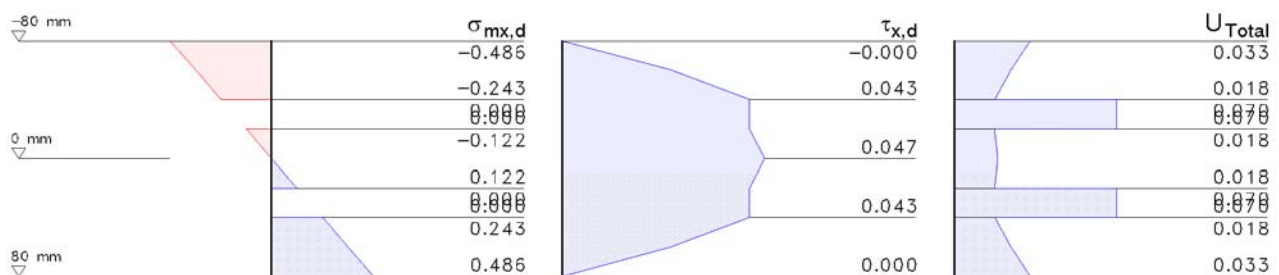
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

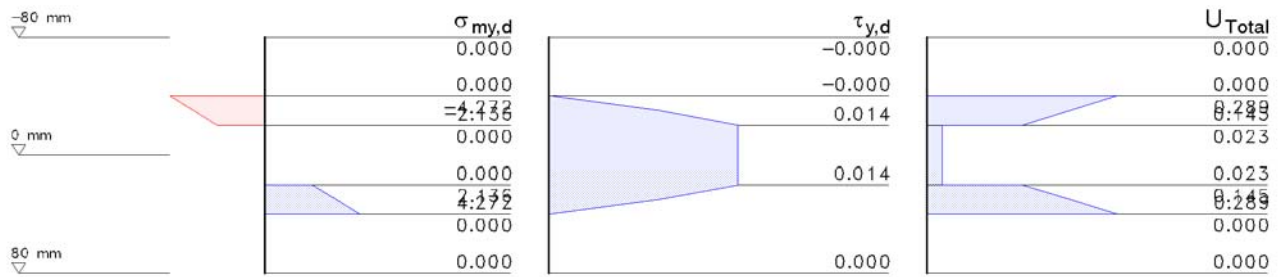
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						

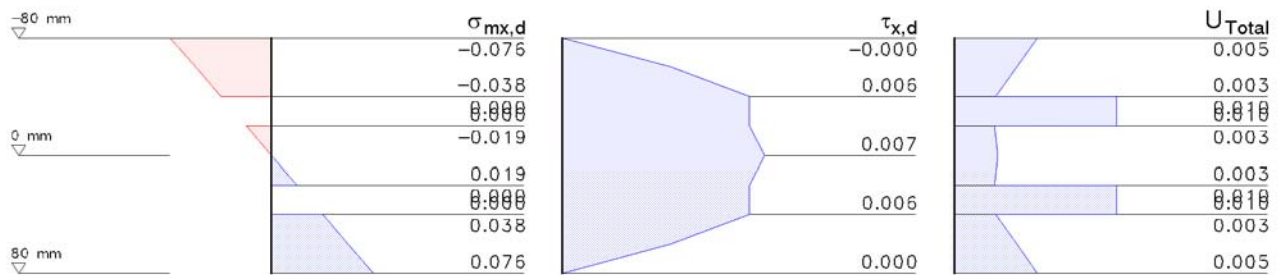


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

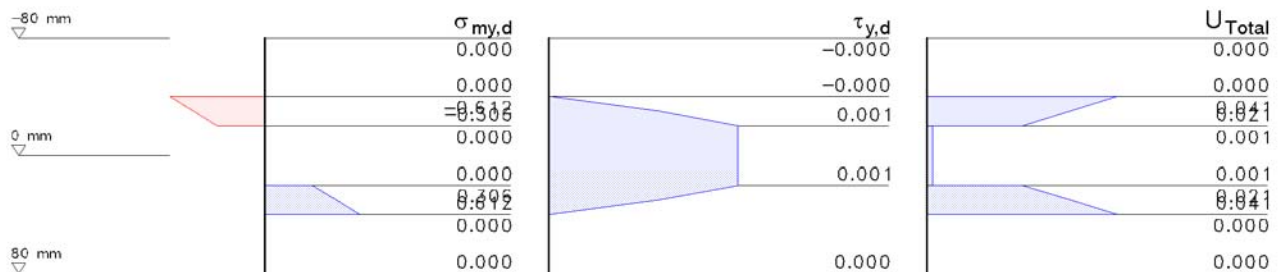
Extremierung 1/2: min q_y

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0.00$ Nmm/mm
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	$E S_x$ [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.006	0.62
60.0	-15.400	0.057	14.77	0.004	2.46	-30.0	-26.400	0.000	14.77	0.006	0.62
40.0	-26.400	0.000	14.77	0.006	0.62	-40.0	-26.400	-0.038	14.77	0.006	2.46
30.0	-26.400	0.000	14.77	0.006	0.62	-60.0	-15.400	-0.057	14.77	0.004	2.46
20.0	-26.400	0.019	14.77	0.006	2.46	-80.0	0.000	-0.076	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.007	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	$E S_y$ [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-0.306	14.77	0.001	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-0.459	14.77	0.000	2.46
40.0	-26.400	0.612	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	0.459	14.77	0.000	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.001	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.001	0.62						

Extremierung 1/2: max q_y

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 1.85$ Nmm/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = 0.$

$\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 12.923$ N/mm², $f_{t0,d} = 8.923$ N/mm²

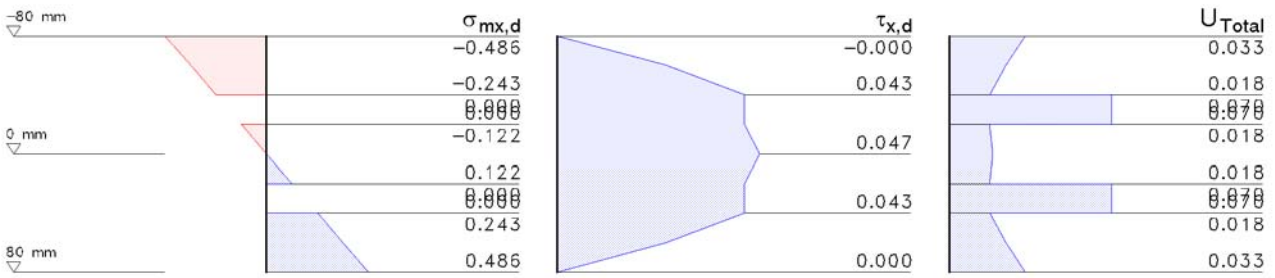
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.231$ N/mm²

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

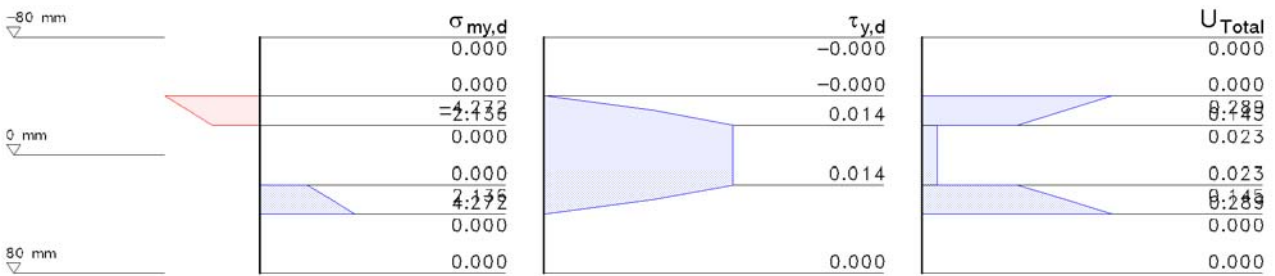
$n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.538$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.486	14.77	0.000	2.46	-20.0	-26.400	0.000	14.77	0.043	0.62
60.0	-15.400	0.365	14.77	0.025	2.46	-30.0	-26.400	0.000	14.77	0.043	0.62
40.0	-26.400	0.000	14.77	0.043	0.62	-40.0	-26.400	-0.243	14.77	0.043	2.46
30.0	-26.400	0.000	14.77	0.043	0.62	-60.0	-15.400	-0.365	14.77	0.025	2.46
20.0	-26.400	0.122	14.77	0.043	2.46	-80.0	0.000	-0.486	14.77	-0.000	2.46
0.0	-28.600	0.000	14.77	0.047	2.46						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	14.77	0.000	0.62	-20.0	-26.400	-2.136	14.77	0.014	2.46
60.0	-15.400	0.000	14.77	0.000	0.62	-30.0	-26.400	-3.204	14.77	0.008	2.46
40.0	-26.400	4.272	14.77	0.000	2.46	-40.0	-26.400	0.000	14.77	-0.000	0.62
30.0	-26.400	3.204	14.77	0.008	2.46	-60.0	-15.400	0.000	14.77	-0.000	0.62
20.0	-26.400	0.000	14.77	0.014	0.62	-80.0	0.000	0.000	14.77	-0.000	0.62
0.0	-28.600	0.000	14.77	0.014	0.62						

Extremierung 1/3: min n_{xx}

Schnittgrößen: $n_{xx} = -1.02$ N/mm, $n_{yy} = 2.52$ N/mm, $n_{xy} = -0.30$ N/mm, $m_{xx} = 0.29$ Nmm/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} =$

$\sigma_{xx} = -0.009$ N/mm², $\sigma_{yy} = 0.063$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 14.538$ N/mm², $f_{t0,d} = 10.038$ N/mm²

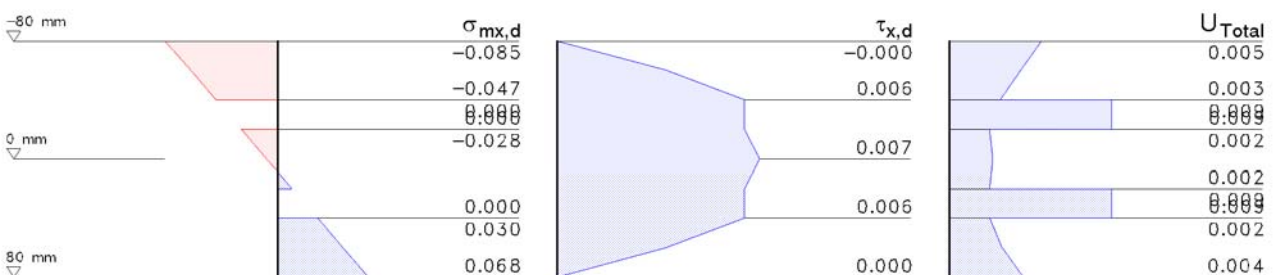
$U_{\sigma x} = 0.001$, $U_{\sigma y} = 0.006 \Rightarrow U_{\sigma} = 0.006$

$\tau_{xy} = 0.003$ N/mm², $\tau_{yx} = 0.008$ N/mm², $f_{v,d} = 1.385$ N/mm²

$U_{\tau xy} = 0.002$, $U_{\tau yx} = 0.005 \Rightarrow U_{\tau} = 0.005$

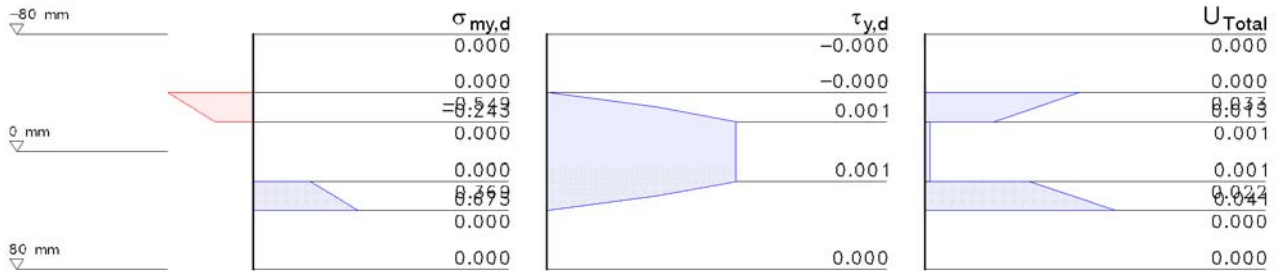
$n_{xy} = -0.301$ N/mm², $M_{\phi} = 10294.210$ Nmm, $\tau_{tor} = 0.001$ N/mm², $f_{tor,d} = 1.731$ N/mm², $U_{tor} = 0.001$

$\Rightarrow U = 0.006$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.068	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.049	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.047	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.066	16.62	0.004	2.77
20.0	-26.400	0.011	16.62	0.006	2.77	-80.0	0.000	-0.085	16.62	-0.000	2.77
0.0	-28.600	-0.009	16.62	0.007	2.77						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.243	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.396	16.62	0.000	2.77
40.0	-26.400	0.675	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.522	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

Extremierung 1/3: max n_{xx}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 1.85 \text{ N/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0.0$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$

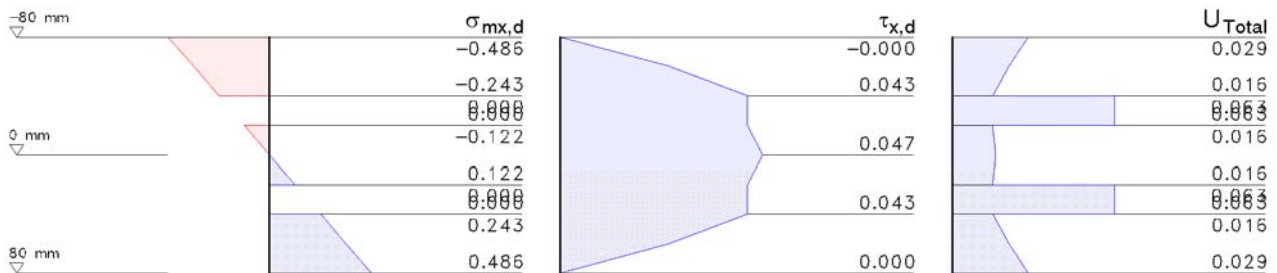
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

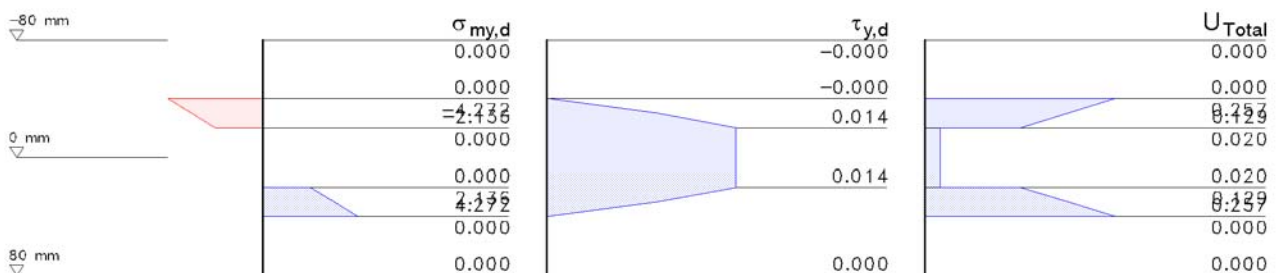
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.486	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.365	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.243	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.365	16.62	0.025	2.77
20.0	-26.400	0.122	16.62	0.043	2.77	-80.0	0.000	-0.486	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.047	2.77						

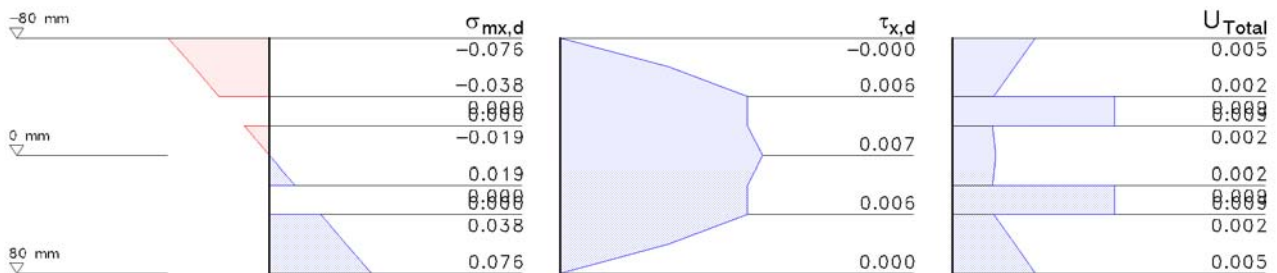


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.136	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.204	16.62	0.008	2.77
40.0	-26.400	4.272	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.204	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

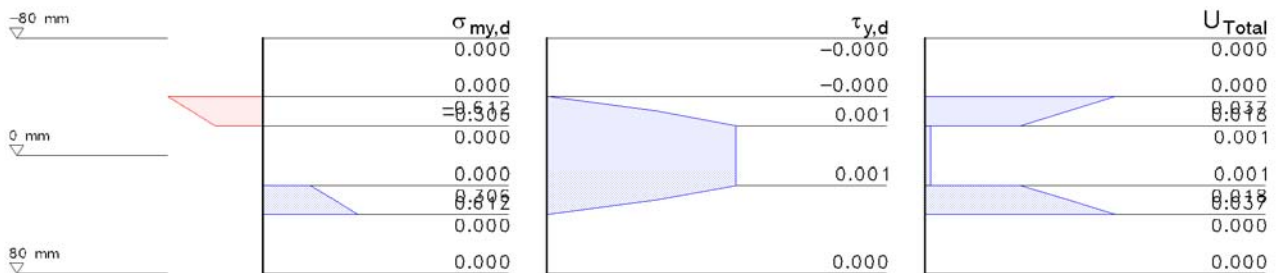
Extremierung 1/3: min n_{yy}

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ Nmm/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						

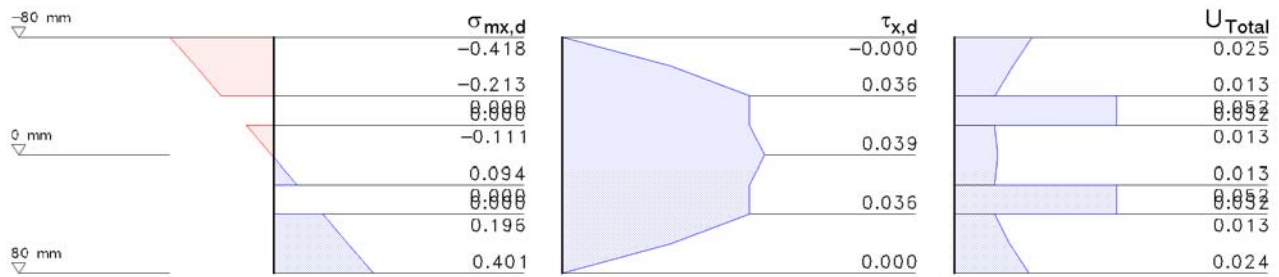


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

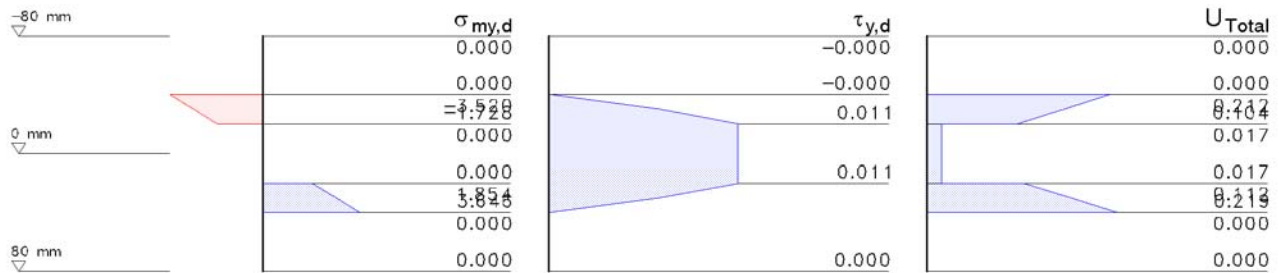
Extremierung 1/3: max n_{yy}

Schnittgrößen: $n_{xx} = -1.02 \text{ N/mm}$, $n_{yy} = 2.52 \text{ N/mm}$, $n_{xy} = -0.30 \text{ N/mm}$, $m_{xx} = 1.56 \text{ Nmm/mm}$, $m_{yy} = 3.34 \text{ Nmm/mm}$, $m_{xy} = 0.00$
 $\sigma_{xx} = -0.009 \text{ N/mm}^2$, $\sigma_{yy} = 0.063 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.001$, $U_{\sigma y} = 0.006 \Rightarrow U_{\sigma} = 0.006$
 $\tau_{xy} = 0.003 \text{ N/mm}^2$, $\tau_{yx} = 0.008 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.002$, $U_{\tau yx} = 0.005 \Rightarrow U_{\tau} = 0.005$
 $n_{xy} = -0.301 \text{ N/mm}^2$, $M_{\phi} = 10294.210 \text{ Nmm}$, $\tau_{tor} = 0.001 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.001$
 $\Rightarrow U = 0.006$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.401	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.036	0.69
60.0	-15.400	0.299	16.62	0.021	2.77	-30.0	-26.400	0.000	16.62	0.036	0.69
40.0	-26.400	0.000	16.62	0.036	0.69	-40.0	-26.400	-0.213	16.62	0.036	2.77
30.0	-26.400	0.000	16.62	0.036	0.69	-60.0	-15.400	-0.316	16.62	0.021	2.77
20.0	-26.400	0.094	16.62	0.036	2.77	-80.0	0.000	-0.418	16.62	-0.000	2.77
0.0	-28.600	-0.009	16.62	0.039	2.77						

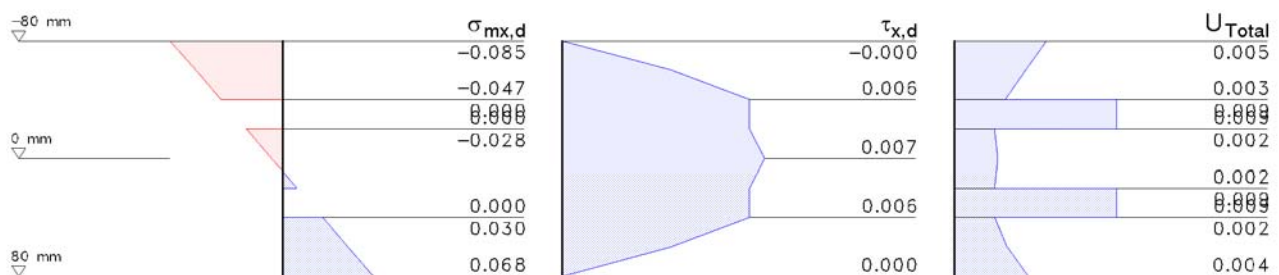


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-1.728	16.62	0.011	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-2.624	16.62	0.007	2.77
40.0	-26.400	3.646	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	2.750	16.62	0.007	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.011	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.011	0.69						

Extremierung 1/3: min n_{xy}

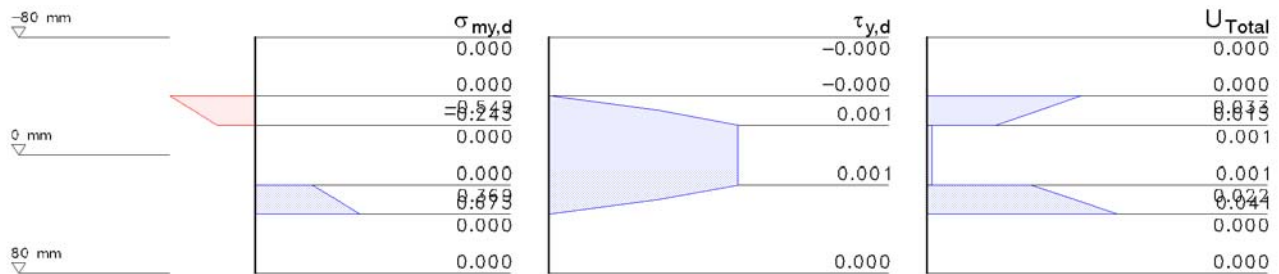
Schnittgrößen: $n_{xx} = -1.02$ N/mm, $n_{yy} = 2.52$ N/mm, $n_{xy} = -0.30$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0$
 $\sigma_{xx} = -0.009$ N/mm², $\sigma_{yy} = 0.063$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 14.538$ N/mm², $f_{t0,d} = 10.038$ N/mm²
 $U_{\sigma x} = 0.001$, $U_{\sigma y} = 0.006 \Rightarrow U_{\sigma} = 0.006$
 $\tau_{xy} = 0.003$ N/mm², $\tau_{yx} = 0.008$ N/mm², $f_{v,d} = 1.385$ N/mm²
 $U_{\tau xy} = 0.002$, $U_{\tau yx} = 0.005 \Rightarrow U_{\tau} = 0.005$
 $n_{xy} = -0.301$ N/mm², $M_{\phi} = 10294.210$ Nmm, $\tau_{tor} = 0.001$ N/mm², $f_{tor,d} = 1.731$ N/mm², $U_{tor} = 0.001$
 $\Rightarrow U = 0.006$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.068	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.049	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.047	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.066	16.62	0.004	2.77
20.0	-26.400	0.011	16.62	0.006	2.77	-80.0	0.000	-0.085	16.62	-0.000	2.77
0.0	-28.600	-0.009	16.62	0.007	2.77						



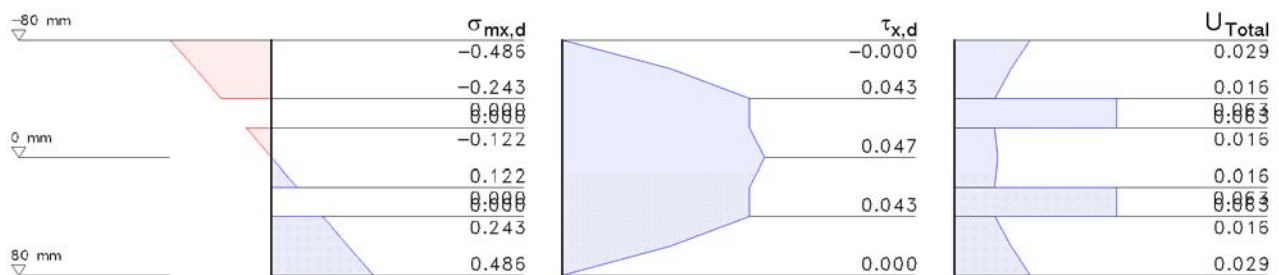


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.243	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.396	16.62	0.000	2.77
40.0	-26.400	0.675	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.522	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

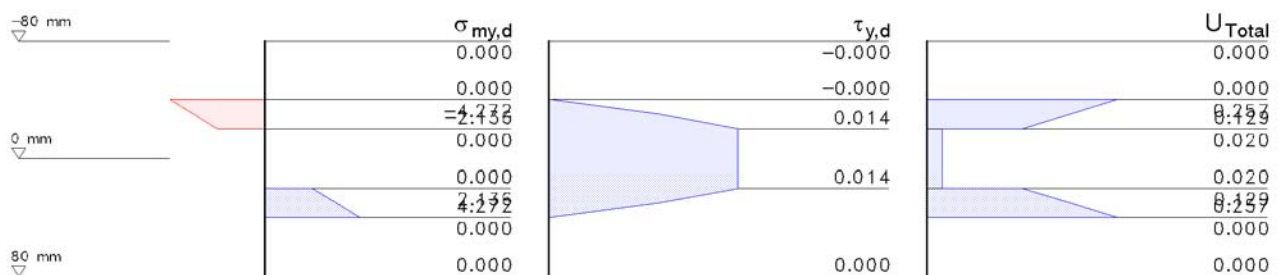
Extremierung 1/3: max n_{xy}

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 1.85$ Nmm/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = 0.00$ Nmm/mm
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 14.538$ N/mm², $f_{t0,d} = 10.038$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.385$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.731$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.486	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.365	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.243	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.365	16.62	0.025	2.77
20.0	-26.400	0.122	16.62	0.043	2.77	-80.0	0.000	-0.486	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.047	2.77						

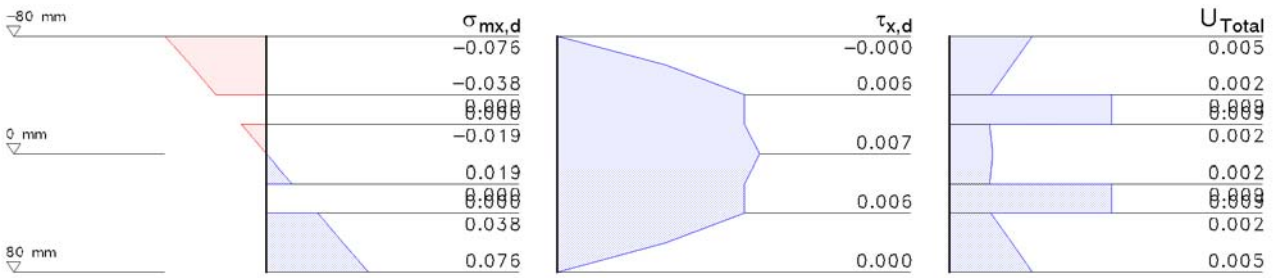


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.136	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.204	16.62	0.008	2.77
40.0	-26.400	4.272	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.204	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

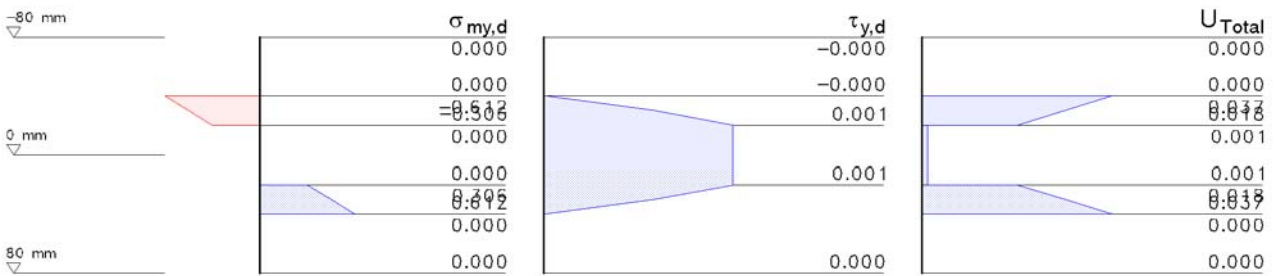
Extremierung 1/3: min m_{xx}

Schnittgrößen: n_{xx} = 0.00 N/mm, n_{yy} = 0.00 N/mm, n_{xy} = 0.00 N/mm, m_{xx} = 0.29 Nmm/mm, m_{yy} = 0.57 Nmm/mm, m_{xy} = 0.
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit B_x = 3344.000 Nmm

z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						

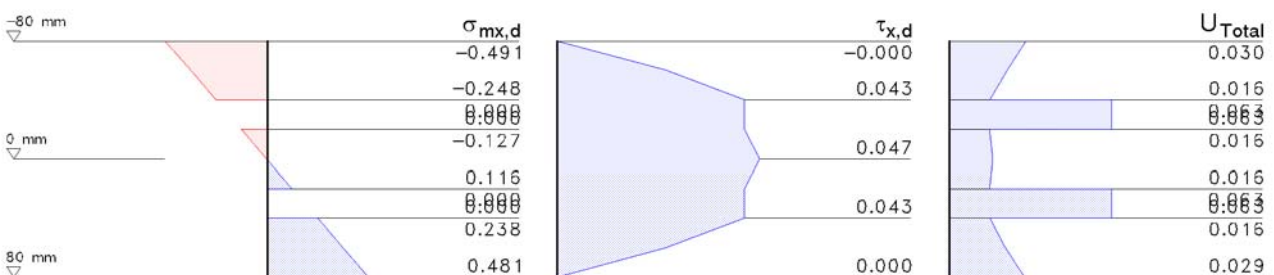


Festigkeiten und statische Werte: Biegesteifigkeit B_y = 410.667 Nmm

z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

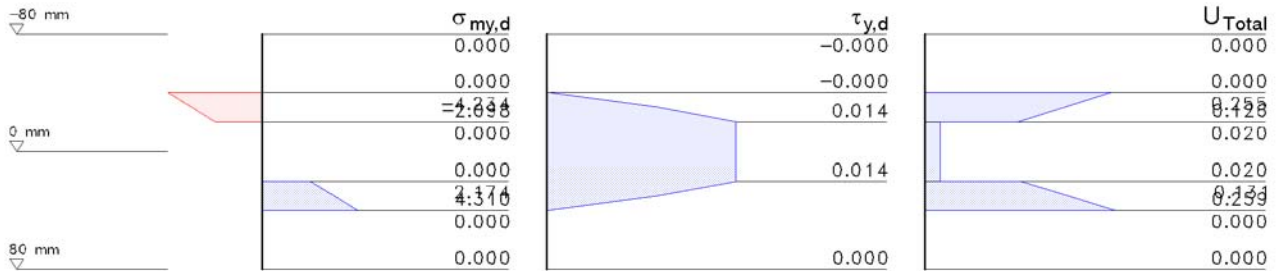
Extremierung 1/3: max m_{xx}

Schnittgrößen: n_{xx} = -0.61 N/mm, n_{yy} = 1.51 N/mm, n_{xy} = -0.18 N/mm, m_{xx} = 1.85 Nmm/mm, m_{yy} = 3.99 Nmm/mm, m_{xy} = 0.
 $\sigma_{xx} = -0.005 \text{ N/mm}^2$, $\sigma_{yy} = 0.038 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.004 \Rightarrow U_{\sigma} = 0.004$
 $\tau_{xy} = 0.002 \text{ N/mm}^2$, $\tau_{yx} = 0.005 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.001$, $U_{\tau yx} = 0.003 \Rightarrow U_{\tau} = 0.003$
 $n_{xy} = -0.180 \text{ N/mm}^2$, $M_{\phi} = 6176.526 \text{ Nmm}$, $\tau_{tor} = 0.001 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.004$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.481	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.360	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.248	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.370	16.62	0.025	2.77
20.0	-26.400	0.116	16.62	0.043	2.77	-80.0	0.000	-0.491	16.62	-0.000	2.77
0.0	-28.600	-0.005	16.62	0.047	2.77						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.098	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.166	16.62	0.008	2.77
40.0	-26.400	4.310	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.242	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

Extremierung 1/3: $\min m_{yy}$

Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ N/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0$.
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$

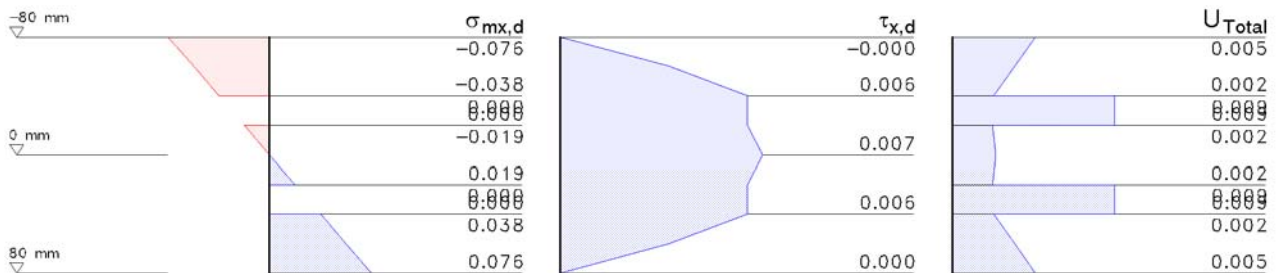
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$

$\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$

$U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$

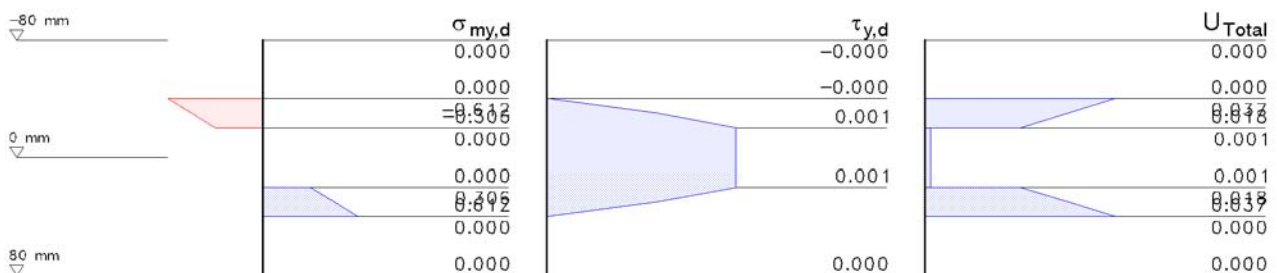
$n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						

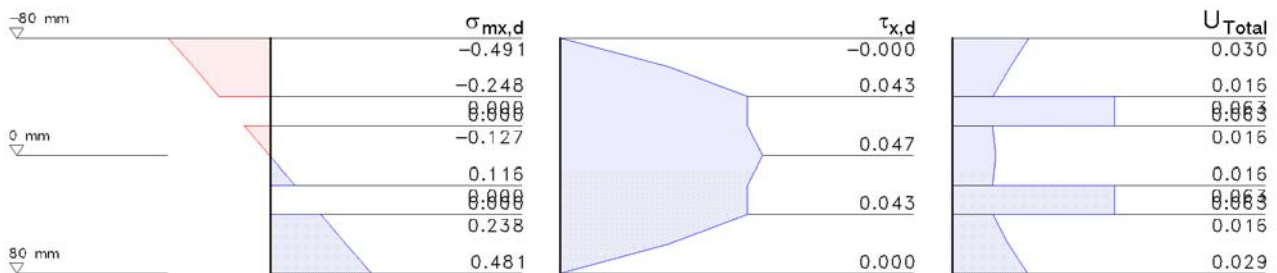


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

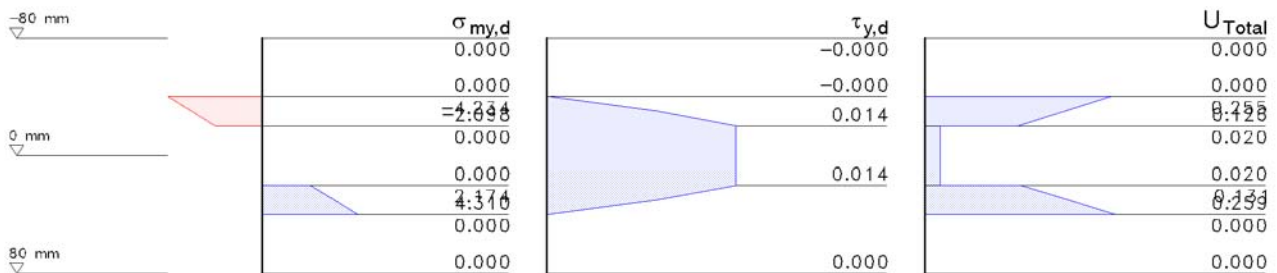
Extremierung 1/3: max m_{yy}

Schnittgrößen: $n_{xx} = -0.61 \text{ N/mm}$, $n_{yy} = 1.51 \text{ N/mm}$, $n_{xy} = -0.18 \text{ N/mm}$, $m_{xx} = 1.85 \text{ N/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = 0$
 $\sigma_{xx} = -0.005 \text{ N/mm}^2$, $\sigma_{yy} = 0.038 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.004 \Rightarrow U_{\sigma} = 0.004$
 $\tau_{xy} = 0.002 \text{ N/mm}^2$, $\tau_{yx} = 0.005 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.001$, $U_{\tau yx} = 0.003 \Rightarrow U_{\tau} = 0.003$
 $n_{xy} = -0.180 \text{ N/mm}^2$, $M_{\phi} = 6176.526 \text{ Nmm}$, $\tau_{tor} = 0.001 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.004$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ESx Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.481	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.360	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.248	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.370	16.62	0.025	2.77
20.0	-26.400	0.116	16.62	0.043	2.77	-80.0	0.000	-0.491	16.62	-0.000	2.77
0.0	-28.600	-0.005	16.62	0.047	2.77						



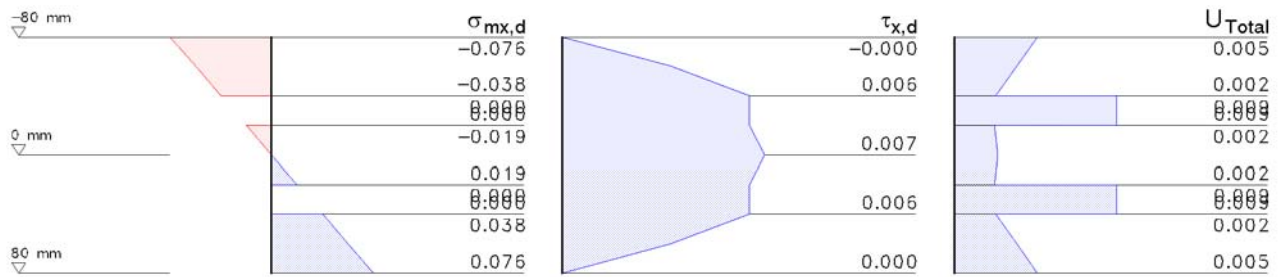
Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.098	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.166	16.62	0.008	2.77
40.0	-26.400	4.310	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.242	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

Extremierung 1/3: min m_{xy}

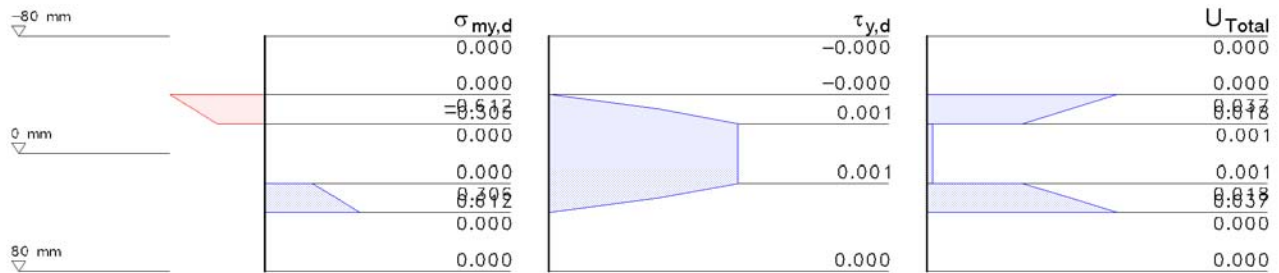
Schnittgrößen: $n_{xx} = 0.00 \text{ N/mm}$, $n_{yy} = 0.00 \text{ N/mm}$, $n_{xy} = 0.00 \text{ N/mm}$, $m_{xx} = 0.29 \text{ N/mm}$, $m_{yy} = 0.57 \text{ Nmm/mm}$, $m_{xy} = 0$
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$





Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

Extremierung 1/3: max m_{xy}

Schnittgrößen: $n_{xx} = -0.61$ N/mm, $n_{yy} = 1.51$ N/mm, $n_{xy} = -0.18$ N/mm, $m_{xx} = 1.85$ N/mm, $m_{yy} = 3.99$ Nmm/mm, $m_{xy} = \sigma_{xx} = -0.005$ N/mm², $\sigma_{yy} = 0.038$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 14.538$ N/mm², $f_{t0,d} = 10.038$ N/mm²

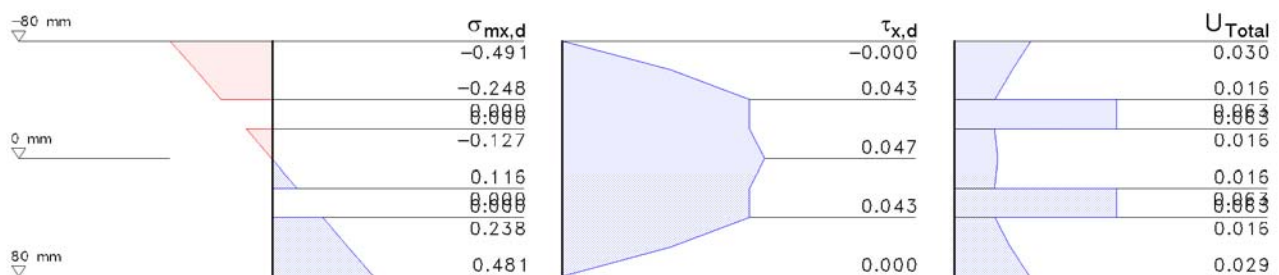
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.004 \Rightarrow U_{\sigma} = 0.004$

$\tau_{xy} = 0.002$ N/mm², $\tau_{yx} = 0.005$ N/mm², $f_{v,d} = 1.385$ N/mm²

$U_{\tau xy} = 0.001$, $U_{\tau yx} = 0.003 \Rightarrow U_{\tau} = 0.003$

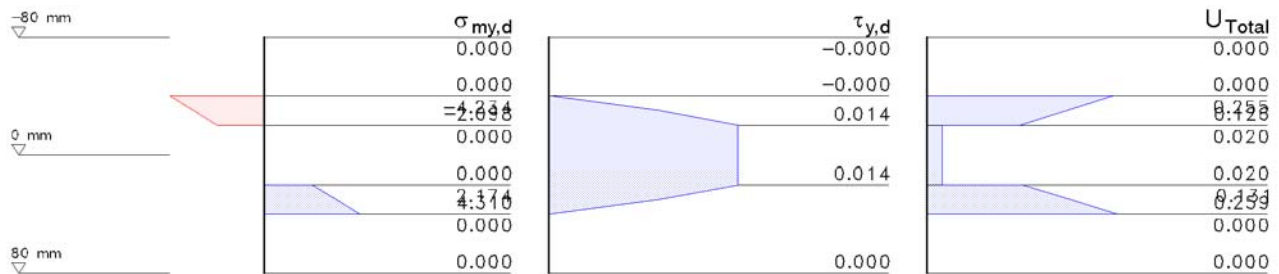
$n_{xy} = -0.180$ N/mm², $M_{\phi} = 6176.526$ Nmm, $\tau_{tor} = 0.001$ N/mm², $f_{tor,d} = 1.731$ N/mm², $U_{tor} = 0.000$

$\Rightarrow U = 0.004$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.481	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.360	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.248	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.370	16.62	0.025	2.77
20.0	-26.400	0.116	16.62	0.043	2.77	-80.0	0.000	-0.491	16.62	-0.000	2.77
0.0	-28.600	-0.005	16.62	0.047	2.77						

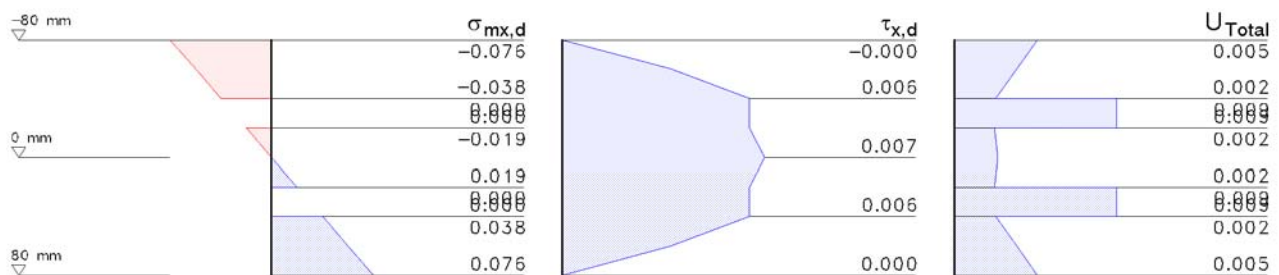


Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.098	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.166	16.62	0.008	2.77
40.0	-26.400	4.310	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.242	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

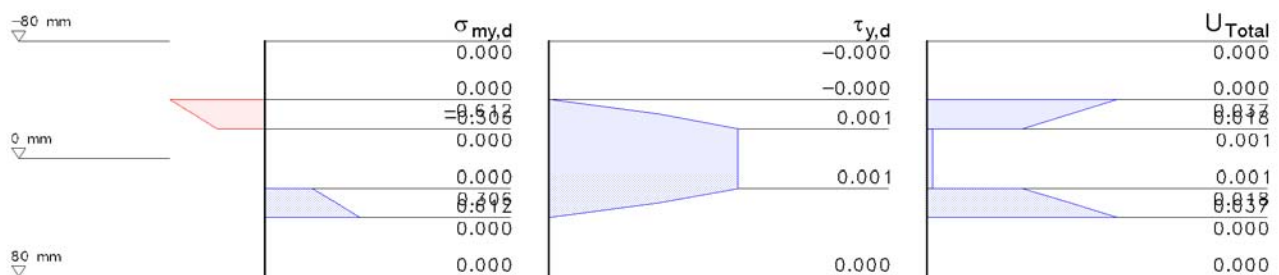
Extremierung 1/3: min q_x

Schnittgrößen: $n_{xx} = 0.00$ N/mm, $n_{yy} = 0.00$ N/mm, $n_{xy} = 0.00$ N/mm, $m_{xx} = 0.29$ N/mm, $m_{yy} = 0.57$ Nmm/mm, $m_{xy} = 0$.
 $\sigma_{xx} = 0.000$ N/mm², $\sigma_{yy} = 0.000$ N/mm², $\gamma = 1.30$, $f_{c0,d} = 14.538$ N/mm², $f_{t0,d} = 10.038$ N/mm²
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000$ N/mm², $\tau_{yx} = 0.000$ N/mm², $f_{v,d} = 1.385$ N/mm²
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000$ N/mm², $M_{\phi} = 0.000$ Nmm, $\tau_{tor} = 0.000$ N/mm², $f_{tor,d} = 1.731$ N/mm², $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000$ Nmm

z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ESx [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						



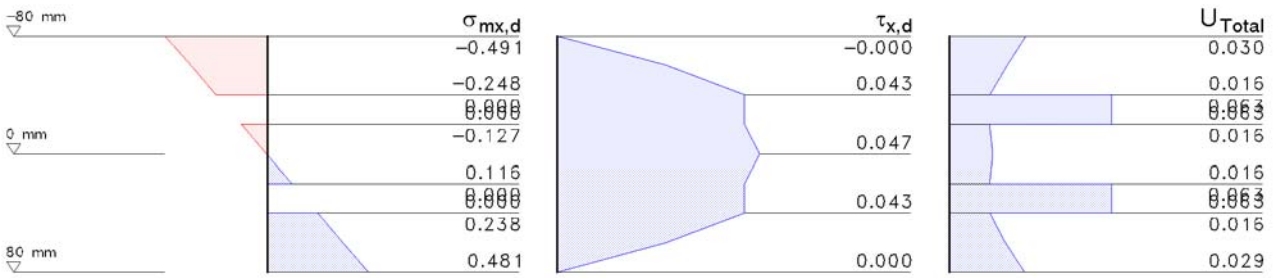
Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667$ Nmm

z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ESy [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						



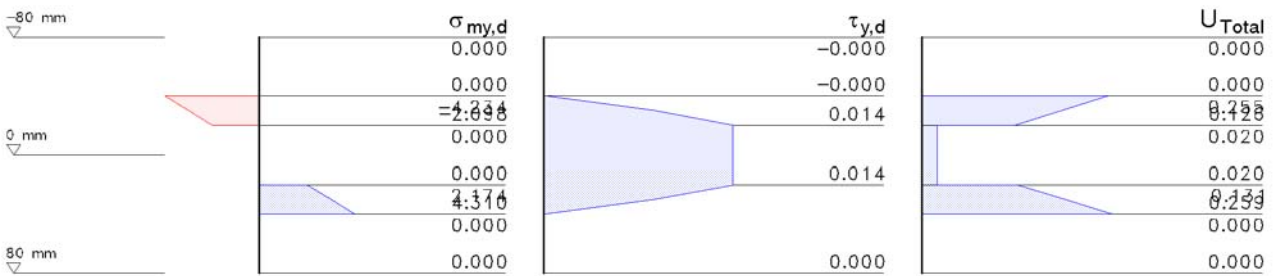
Extremierung 1/3: max q_x

Schnittgrößen: n_{xx} = -0.61 N/mm, n_{yy} = 1.51 N/mm, n_{xy} = -0.18 N/mm, m_{xx} = 1.85 Nmm/mm, m_{yy} = 3.99 Nmm/mm, m_{xy} = 0.00 Nmm/mm
 $\sigma_{xx} = -0.005 \text{ N/mm}^2$, $\sigma_{yy} = 0.038 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.004 \Rightarrow U_{\sigma} = 0.004$
 $\tau_{xy} = 0.002 \text{ N/mm}^2$, $\tau_{yx} = 0.005 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.001$, $U_{\tau yx} = 0.003 \Rightarrow U_{\tau} = 0.003$
 $n_{xy} = -0.180 \text{ N/mm}^2$, $M_{\phi} = 6176.526 \text{ Nmm}$, $\tau_{tor} = 0.001 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.004$



Festigkeiten und statische Werte: Biegesteifigkeit B_x = 3344.000 Nmm

z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]	z [mm]	ES _x [Nmm]	$\sigma_{mx,d}$ [N/mm ²]	$f_{mx,d}$ [N/mm ²]	$\tau_{vx,d}$ [N/mm ²]	$f_{vx,d}$ [N/mm ²]
80.0	0.000	0.481	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.360	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.248	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.370	16.62	0.025	2.77
20.0	-26.400	0.116	16.62	0.043	2.77	-80.0	0.000	-0.491	16.62	-0.000	2.77
0.0	-28.600	-0.005	16.62	0.047	2.77						

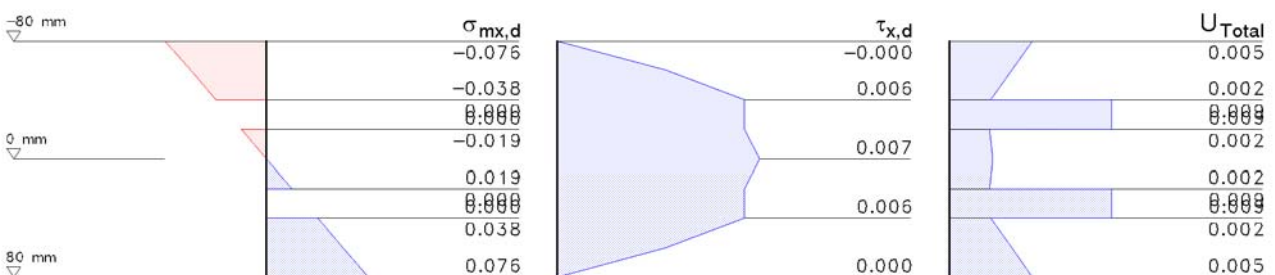


Festigkeiten und statische Werte: Biegesteifigkeit B_y = 410.667 Nmm

z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]	z [mm]	ES _y [Nmm]	$\sigma_{my,d}$ [N/mm ²]	$f_{my,d}$ [N/mm ²]	$\tau_{vy,d}$ [N/mm ²]	$f_{vy,d}$ [N/mm ²]
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.098	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.166	16.62	0.008	2.77
40.0	-26.400	4.310	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.242	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

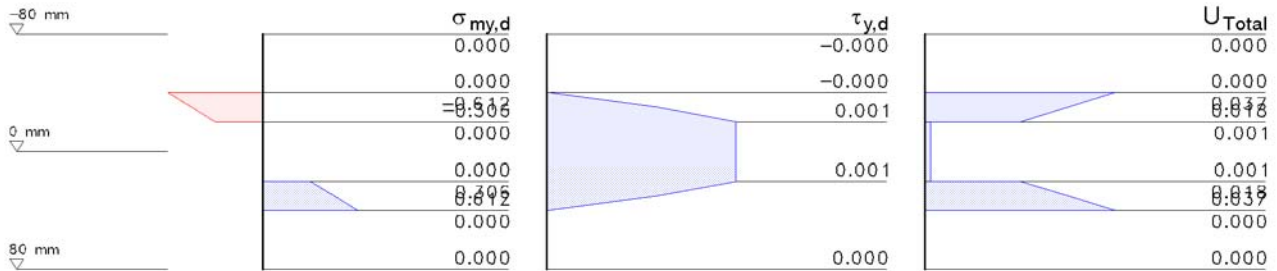
Extremierung 1/3: min q_y

Schnittgrößen: n_{xx} = 0.00 N/mm, n_{yy} = 0.00 N/mm, n_{xy} = 0.00 N/mm, m_{xx} = 0.29 Nmm/mm, m_{yy} = 0.57 Nmm/mm, m_{xy} = 0.00 Nmm/mm
 $\sigma_{xx} = 0.000 \text{ N/mm}^2$, $\sigma_{yy} = 0.000 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$
 $U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.000 \Rightarrow U_{\sigma} = 0.000$
 $\tau_{xy} = 0.000 \text{ N/mm}^2$, $\tau_{yx} = 0.000 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$
 $U_{\tau xy} = 0.000$, $U_{\tau yx} = 0.000 \Rightarrow U_{\tau} = 0.000$
 $n_{xy} = 0.000 \text{ N/mm}^2$, $M_{\phi} = 0.000 \text{ Nmm}$, $\tau_{tor} = 0.000 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$
 $\Rightarrow U = 0.000$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.076	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.006	0.69
60.0	-15.400	0.057	16.62	0.004	2.77	-30.0	-26.400	0.000	16.62	0.006	0.69
40.0	-26.400	0.000	16.62	0.006	0.69	-40.0	-26.400	-0.038	16.62	0.006	2.77
30.0	-26.400	0.000	16.62	0.006	0.69	-60.0	-15.400	-0.057	16.62	0.004	2.77
20.0	-26.400	0.019	16.62	0.006	2.77	-80.0	0.000	-0.076	16.62	-0.000	2.77
0.0	-28.600	0.000	16.62	0.007	2.77						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ES _y Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-0.306	16.62	0.001	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-0.459	16.62	0.000	2.77
40.0	-26.400	0.612	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	0.459	16.62	0.000	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.001	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.001	0.69						

Extremierung 1/3: max q_y

Schnittgrößen: $n_{xx} = -0.61 \text{ N/mm}$, $n_{yy} = 1.51 \text{ N/mm}$, $n_{xy} = -0.18 \text{ N/mm}$, $m_{xx} = 1.85 \text{ N/mm}$, $m_{yy} = 3.99 \text{ Nmm/mm}$, $m_{xy} = -0.005 \text{ N/mm}^2$, $\sigma_{yy} = 0.038 \text{ N/mm}^2$, $\gamma = 1.30$, $f_{c0,d} = 14.538 \text{ N/mm}^2$, $f_{t0,d} = 10.038 \text{ N/mm}^2$

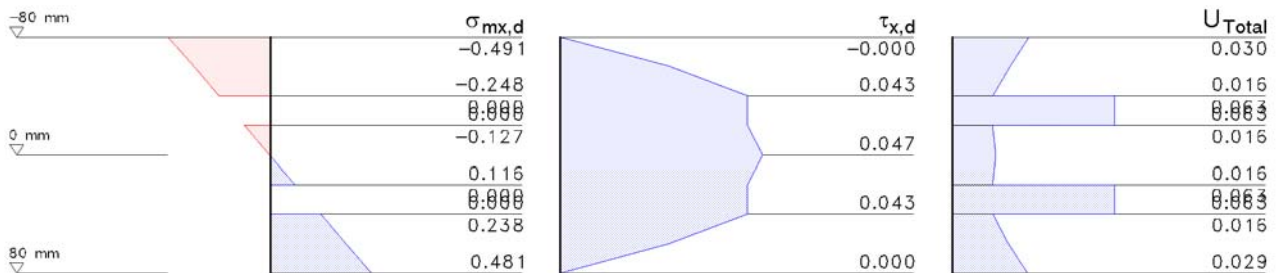
$U_{\sigma x} = 0.000$, $U_{\sigma y} = 0.004 \Rightarrow U_{\sigma} = 0.004$

$\tau_{xy} = 0.002 \text{ N/mm}^2$, $\tau_{yx} = 0.005 \text{ N/mm}^2$, $f_{v,d} = 1.385 \text{ N/mm}^2$

$U_{\tau xy} = 0.001$, $U_{\tau yx} = 0.003 \Rightarrow U_{\tau} = 0.003$

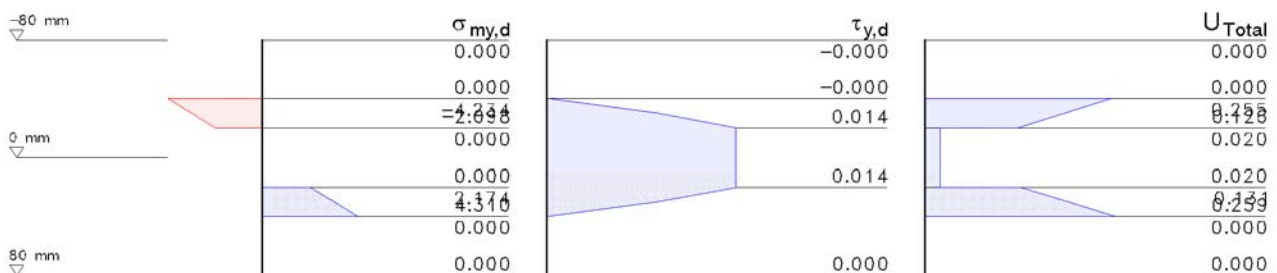
$n_{xy} = -0.180 \text{ N/mm}^2$, $M_{\phi} = 6176.526 \text{ Nmm}$, $\tau_{tor} = 0.001 \text{ N/mm}^2$, $f_{tor,d} = 1.731 \text{ N/mm}^2$, $U_{tor} = 0.000$

$\Rightarrow U = 0.004$



Festigkeiten und statische Werte: Biegesteifigkeit $B_x = 3344.000 \text{ Nmm}$

z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²	z mm	ES _x Nmm	$\sigma_{mx,d}$ N/mm ²	$f_{mx,d}$ N/mm ²	$\tau_{vx,d}$ N/mm ²	$f_{vx,d}$ N/mm ²
80.0	0.000	0.481	16.62	0.000	2.77	-20.0	-26.400	0.000	16.62	0.043	0.69
60.0	-15.400	0.360	16.62	0.025	2.77	-30.0	-26.400	0.000	16.62	0.043	0.69
40.0	-26.400	0.000	16.62	0.043	0.69	-40.0	-26.400	-0.248	16.62	0.043	2.77
30.0	-26.400	0.000	16.62	0.043	0.69	-60.0	-15.400	-0.370	16.62	0.025	2.77
20.0	-26.400	0.116	16.62	0.043	2.77	-80.0	0.000	-0.491	16.62	-0.000	2.77
0.0	-28.600	-0.005	16.62	0.047	2.77						



Festigkeiten und statische Werte: Biegesteifigkeit $B_y = 410.667 \text{ Nmm}$

z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²	z mm	ESy Nmm	$\sigma_{my,d}$ N/mm ²	$f_{my,d}$ N/mm ²	$\tau_{vy,d}$ N/mm ²	$f_{vy,d}$ N/mm ²
80.0	0.000	0.000	16.62	0.000	0.69	-20.0	-26.400	-2.098	16.62	0.014	2.77
60.0	-15.400	0.000	16.62	0.000	0.69	-30.0	-26.400	-3.166	16.62	0.008	2.77
40.0	-26.400	4.310	16.62	0.000	2.77	-40.0	-26.400	0.000	16.62	-0.000	0.69
30.0	-26.400	3.242	16.62	0.008	2.77	-60.0	-15.400	0.000	16.62	-0.000	0.69
20.0	-26.400	0.000	16.62	0.014	0.69	-80.0	0.000	0.000	16.62	-0.000	0.69
0.0	-28.600	0.000	16.62	0.014	0.69						

Zusammenfassung:

$\sigma_{xx,min} = -0.49 \text{ N/mm}^2$ Ex1/3:1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
 $\sigma_{yy,min} = -4.27 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $\sigma_{xx,max} = +0.49 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $\sigma_{yy,max} = +4.31 \text{ N/mm}^2$ Ex1/3:1.35*Lf1+1.5*Lf2+0.6*1.5*Lf3
 $\tau_{xy} = 0.05 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $\tau_{yx} = 0.01 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $\tau_{tor} = 0.00 \text{ N/mm}^2$ Ex1/3:Lf1+1.5*Lf3
 $U_{\sigma,xx} = 0.29 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $U_{\sigma,yy} = 0.07 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 $U_{\tau} = 0.00 \text{ N/mm}^2$ Ex1/3:Lf1+1.5*Lf3
 $U_{\tau,tor} = 0.29 \text{ N/mm}^2$ Ex1/2:1.35*Lf1+1.5*Lf2
 Max. Ausnutzung: $U = 0.289 \leq 1 \Rightarrow$ **Nachweis erfüllt**

Zusammenfassung aller Nachweise

Lastkombination Ausnutzung: $Nw1:Ex1/2[\max n_{xx}]:1.35*Lf1+1.5*Lf2$
 Max. Ausnutzung: $U = 0.289 \leq 1 \Rightarrow$ **Nachweis erfüllt**

7. Zusammenfassung

Gesamtausnutzung aller Nachweise $u_{max,Ges} = 0.000 \leq 1 \Rightarrow$ **ok.**