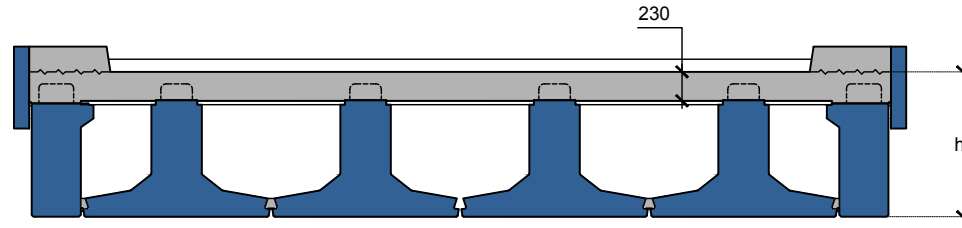
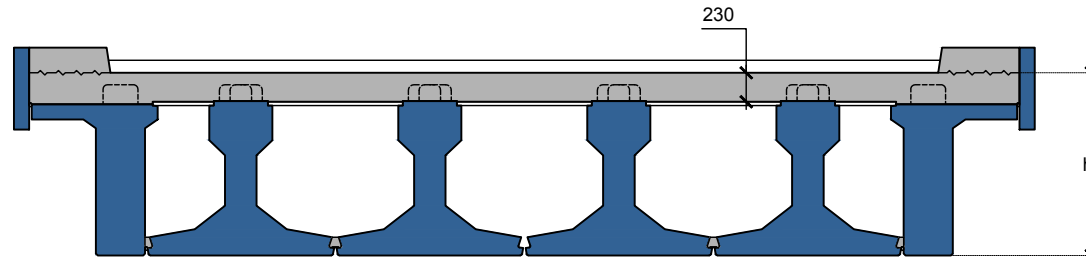


general cross-section ZIPXL

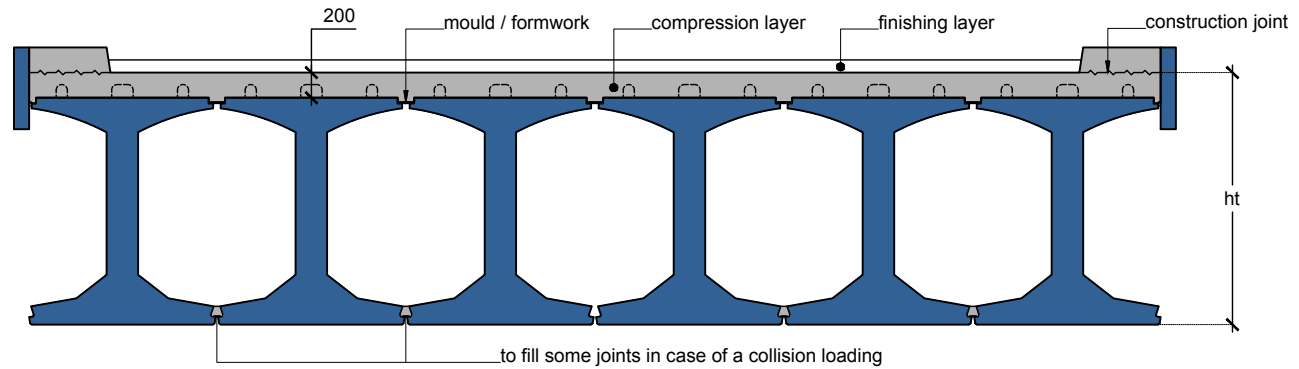
ZIPXL
700 - 900



ZIPXL
1000 - 1700



ZIPXL
1800
1900 - 2400 (on request)



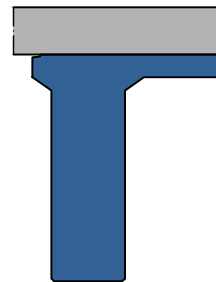
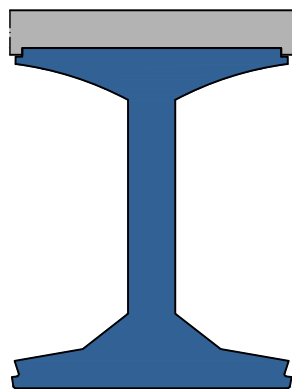
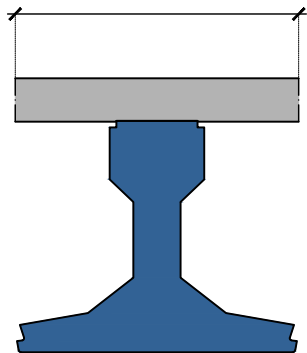
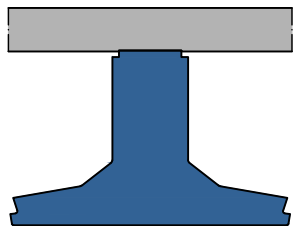
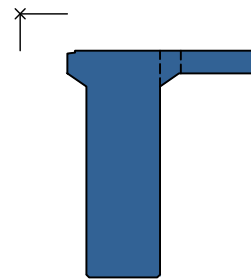
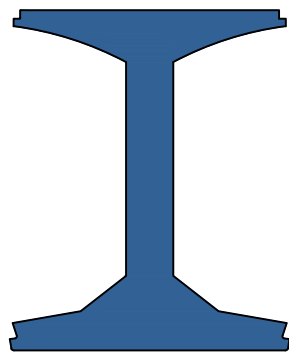
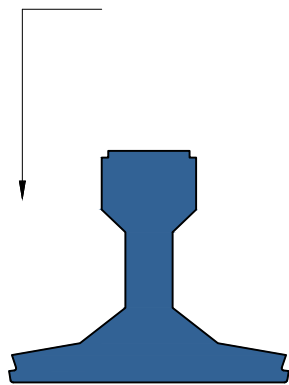
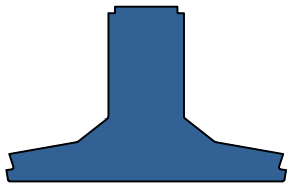
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precast concrete
 cast-in-situ concrete
 structural hollow core

inverted T-beam solution

ZIPXL

CONSOLIS
SPANBETON



measurements & weights

type	dimensions			weights		
	h [mm]	h ₁ [mm]	h _t [mm]	precast [kN/m]	compr. layer [kN/m]	total [kN/m]
ZIPXL 2400	2400	-	2600	26,5	7,5	34,0
ZIPXL 2300	2300	-	2500	25,8	7,5	33,3
ZIPXL 2200	2200	-	2400	25,2	7,5	32,7
ZIPXL 2100	2100	-	2300	25,6	7,5	33,1
ZIPXL 2000	2000	-	2200	24,0	7,5	31,5
ZIPXL 1900	1900	-	2100	23,3	7,5	30,8
ZIPXL 1800	1800	-	2000	22,7	7,5	30,2
ZIPXL 1700	1690	500	1950	21,2	8,6	29,8
ZIPXL 1600	1590	400	1850	19,9	8,6	28,5
ZIPXL 1500	1490	300	1750	18,7	8,6	27,3
ZIPXL 1400	1390	200	1650	17,4	8,6	26,0
ZIPXL 1300	1290	375	1550	17,9	8,6	26,5
ZIPXL 1200	1190	275	1450	16,7	8,6	25,3
ZIPXL 1100	1090	175	1350	15,4	8,6	24,0
ZIPXL 1000	990	75	1250	14,2	8,6	22,8
ZIPXL 900	890	-	1150	14,6	8,6	23,2
ZIPXL 800	790	-	1050	13,6	8,6	22,2
ZIPXL 700	690	-	950	12,6	8,6	21,2

section parameters (exclusive reinforcement)

	precast section (EP)			composite profile (SP)	
	A _{EP} ·10 ³ [mm ²]	Z _{PEP} [mm]	I _{EP} ·10 ⁹ [mm ⁴]	Z _{PSP} [mm]	I _{SP} ·10 ⁹ [mm ⁴]
ZIPXL 2400	1060	1121	831	1386	1219
ZIPXL 2300	1035	1074	748	1333	1105
ZIPXL 2200	1010	1026	670	1288	1008
ZIPXL 2100	985	978	597	1235	907
ZIPXL 2000	960	931	529	1181	811
ZIPXL 1900	935	883	466	1127	722
ZIPXL 1800	910	836	408	1074	639
ZIPXL 1700	845	719	288	1012	565
ZIPXL 1600	795	660	240	955	494
ZIPXL 1500	745	599	196	897	428
ZIPXL 1400	695	537	156	838	367
ZIPXL 1300	716	524	137	793	314
ZIPXL 1200	666	468	107	738	264
ZIPXL 1100	616	412	81	682	219
ZIPXL 1000	566	354	58	625	179
ZIPXL 900	583	328	43	569	144
ZIPXL 800	543	288	31	519	113
ZIPXL 700	503	251	21	469	86

principles:

concrete strength class precast: C60/75

concrete strength class concrete compression layer : C35/45

section modulus (Precast Section EP) :

$$W_{EP,top} = I_{EP} / (h - Z_{PEP})$$

$$W_{EP,bottom} = I_{EP} / Z_{PEP}$$

moment of inertia I_{SP} is based on stiffness of precastis



geometrics:

- standardized beamwidth, effective width: 1,2 m
- statically determined construction
- angle of screwness (crossing angle): 90° (perpendicular)

concrete strength classes:

- precast concrete: C60/75
- compression layer: C35/45

codes used for testing concrete construction

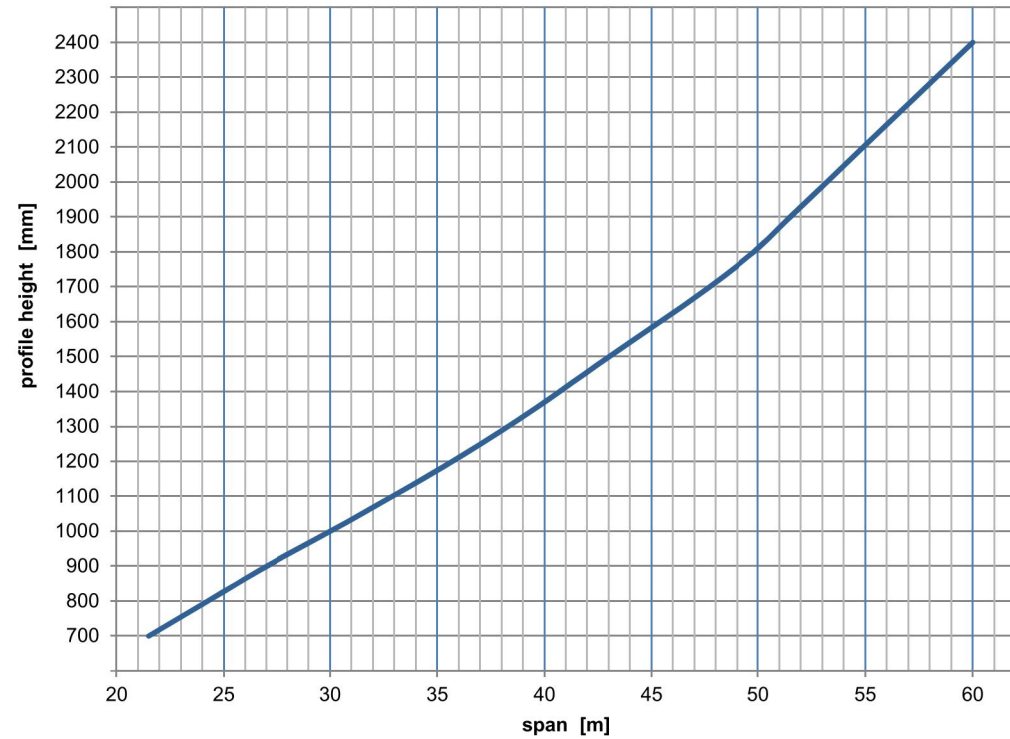
- NEN-EN1990 including National Annex
- NEN-EN1992-1-1 including National Annex
- NEN-EN1992-2 including National Annex

general starting point calculation:

- consequences class: CC3
- design life: 100 years
- environmental class: XD3

vehicular loads:

- thickness asphalt layer conform local codes (ROK 1.3)
- edge load 8,5 kN/m
- vehicular loads conform NEN-EN 1991-2 including National Annex.
- vehicular load LM1, 1,4 m from edge, 3 or more lanes
- fatigue loads vehicular category 1
- camber-requirement conform local codes (ROK 1.3)



in the case of a deviating starting point, our design department can help you with finding a suitable solution.



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