

Schmidtuv tvrdomer N-34 131 474									
akce	P O N T E X s.r.o.								strana
Komorany									58

Zkusebni misto:	165	a	58	53	59	53	58	50	55	58
Smer mereni:	3	prumer	56		Mez 0.8 = 44			Mez 1.2 = 67		
Karbonatace:		platne	58	53	59	53	58	50	55	58
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	166	a	52	55	54	44	64	54	56	56
Smer mereni:	3	prumer	54		Mez 0.8 = 44			Mez 1.2 = 65		
Karbonatace:	pH=6-7	platne	52	55	54	44	64	54	56	56
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	167	a	44	47	52	56	63	56	42	55
Smer mereni:	3	prumer	52		Mez 0.8 = 42			Mez 1.2 = 62		
Karbonatace:		platne	44	47	52	56	0	56	42	55
Vlhkost: suchy		prumer	a = 50.3				Rbe = 59.6 MPa			

Zkusebni misto:	168	a	57	55	52	59	58	44	52	53
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	57	55	52	59	58	44	52	53
Vlhkost: suchy		prumer	a = 53.8				Rbe = 66.3 MPa			

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akce	P O N T E X s.r.o.					strana
						59
Komorany						
Zkusebni misto cislo	a	Rbe	α t	α w	Rbe * α w * α t	
148	54	66.8	.9	.85	51.1	MPa
149	54	66.8	.9	.85	51.1	MPa
150	53.5	65.8	.9	.85	50.3	MPa
151	54	66.8	.9	.85	51.1	MPa
152	54	66.8	.9	.85	51.1	MPa
153	53.5	65.8	.9	.85	50.3	MPa
154	53.1	65.1	.9	.85	49.8	MPa
155	54	66.8	.9	.85	51.1	MPa
156	53.6	66	.9	.85	50.5	MPa
157	54	66.8	.9	.85	51.1	MPa
158	51.6	62.2	.9	.85	47.6	MPa
159	50.5	60	.9	.85	45.9	MPa
160	52.1	63.1	.9	.85	48.3	MPa
161	54	66.8	.9	.85	51.1	MPa
162	54	66.8	.9	.85	51.1	MPa
163	52.1	63.1	.9	.85	48.3	MPa
164	54	66.8	.9	.85	51.1	MPa
165	54	66.8	.9	.85	51.1	MPa
166	54	66.8	.9	.85	51.1	MPa
167	50.3	59.6	.9	.85	45.6	MPa
168	53.8	66.3	.9	.85	50.7	MPa

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akce		P O N T E X s.r.o.				strana	
Komorany						60	
Zkusebni misto cislo		a	Rbe	α	Rbe * α		
148		54	51.1	.72	36.8	MPa	
149		54	51.1	.72	36.8	MPa	
150		53.5	50.3	.72	36.2	MPa	
151		54	51.1	.72	36.8	MPa	
152		54	51.1	.72	36.8	MPa	
153		53.5	50.3	.72	36.2	MPa	
154		53.1	49.8	.72	35.8	MPa	
155		54	51.1	.72	36.8	MPa	
156		53.6	50.5	.72	36.4	MPa	
157		54	51.1	.72	36.8	MPa	
158		51.6	47.6	.72	34.3	MPa	
159		50.5	45.9	.72	33.1	MPa	
160		52.1	48.3	.72	34.8	MPa	
161		54	51.1	.72	36.8	MPa	
162		54	51.1	.72	36.8	MPa	
163		52.1	48.3	.72	34.8	MPa	
164		54	51.1	.72	36.8	MPa	
165		54	51.1	.72	36.8	MPa	
166		54	51.1	.72	36.8	MPa	
167		50.3	45.6	.72	32.8	MPa	
168		53.8	50.7	.72	36.5	MPa	

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akce	P O N T E X s.r.o.	strana
Komorany		61
Zkousena cast konstrukce: SLOUPY D +23,50		

VYPOCET ZARUCENE PEVNOSTI

CSN 73 2011,clanek 4.2.7.1

ARITMETICKY PRUMER PEVNOSTI $R_{be} = 36 \text{ MPa}$
SOUCINITEL β_n $\beta_n = 1.71$
/ PRO 21 ZKUSEBNICH MIST /

SMERODATNA ODCHYLKA VYVRTU $S_{rez} = 6.7 \text{ MPa}$
/ NEJSOU-LI, $S_{rez}=2.5$ /

SMERODATNA ODCHYLKA SCHMIDTU $S = 1.3 \text{ MPa}$

$$S_r = \sqrt{S^2 + S_{rez}^2} = \sqrt{1.3^2 + 6.7^2} = 6.8 \text{ MPa}$$

VYBEROVA SMERODATNA ODCHYLKA $S_r = 6.8 \text{ MPa}$

$$R_{bg} = R_{be} - \beta_n * S_r = 36.0 - 1.71 * 6.8 = 24.4 \text{ MPa}$$

ZARUCENA PEVNOST BETONU

$$R_{bg} = 24.4 \text{ MPa}$$

ODPOVIDAJICI KVALITA BETONU

B 250

CSN 73 2400,zm. b,tab. 9

B 20

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akce

Komorany

P O N T E X s.r.o.

strana

62

Datum: 3/3/1993

Zpracovatel: ing. Kiml

Zkousena cast konstrukce: SLOUPY A,B +29,75

Stari betonu: > 1 rok

Vlhkost betonu: suchy

Smery mereni: 1-NAHORU 2-DOLU 3-VODOROVNE 4-NAHORU 45' 5-DOLU 45'

Zkusebni misto:	52	a	56	51	55	56	58	57	51	59
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:		platne	56	51	55	56	58	57	51	59
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	53	a	49	64	52	56	56	60	50	44
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	49	64	52	56	56	60	50	44
Vlhkost: suchy		prumer	a = 53.9				Rbe = 66.5 MPa			

Zkusebni misto:	54	a	50	52	53	51	52	40	51	54
Smer mereni:	3	prumer	50		Mez 0.8 = 40			Mez 1.2 = 60		
Karbonatace:		platne	50	52	53	51	52	0	51	54
Vlhkost: suchy		prumer	a = 51.9				Rbe = 62.6 MPa			

Zkusebni misto:	55	a	50	52	54	52	53	41	52	52
Smer mereni:	3	prumer	51		Mez 0.8 = 41			Mez 1.2 = 61		
Karbonatace:		platne	50	52	54	52	53	41	52	52
Vlhkost: suchy		prumer	a = 50.8				Rbe = 60.5 MPa			

Zkusebni misto:	56	a	51	55	53	53	54	48	49	34
Smer mereni:	3	prumer	50		Mez 0.8 = 40			Mez 1.2 = 60		
Karbonatace:		platne	51	55	53	53	54	48	49	0
Vlhkost: suchy		prumer	a = 51.9				Rbe = 62.6 MPa			

Schmidtuv tvrdomer N-34 131 474

akce	P O N T E X s.r.o.	strana
Komorany		63

Zkusebni misto:	57	a	56	51	55	56	62	49	48	53
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	56	51	55	56	62	49	48	53
Vlhkost: suchy		prumer	a = 53.8				Rbe = 66.3 MPa			

Zkusebni misto:	58	a	54	60	56	56	54	58	42	51
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	54	60	56	56	54	58	0	51
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	59	a	54	56	60	49	60	48	54	56
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:	pH=5-6	platne	54	56	60	49	60	48	54	56
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	60	a	52	54	53	53	50	56	54	55
Smer mereni:	3	prumer	53		Mez 0.8 = 43			Mez 1.2 = 64		
Karbonatace:		platne	52	54	53	53	50	56	54	55
Vlhkost: suchy		prumer	a = 53.4				Rbe = 65.5 MPa			

Zkusebni misto:	61	a	54	48	59	56	48	56	54	53
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 64		
Karbonatace:		platne	54	48	59	56	48	56	54	53
Vlhkost: suchy		prumer	a = 53.5				Rbe = 65.8 MPa			

Zkusebni misto:	62	a	64	58	60	52	69	58	50	62
Smer mereni:	3	prumer	59		Mez 0.8 = 47			Mez 1.2 = 71		
Karbonatace:		platne	64	58	60	52	69	58	50	62
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Schmidtuv tvrdomer N-34 131 474

akce

strana

P O N T E X s.r.o.

Komorany

64

Zkusebni misto:	63	a	54	60	59	54	53	52	48	56
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 65		
Karbonatace:		platne	54	60	59	54	53	52	48	56
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	64	a	58	60	53	44	58	54	59	60
Smer mereni:	3	prumer	56		Mez 0.8 = 45			Mez 1.2 = 67		
Karbonatace:		platne	58	60	53	0	58	54	59	60
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	65	a	50	60	55	53	45	58	60	60
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:		platne	50	60	55	53	45	58	60	60
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	66	a	55	59	56	53	56	54	43	53
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 64		
Karbonatace:		platne	55	59	56	53	56	54	43	53
Vlhkost: suchy		prumer	a = 53.6				Rbe = 66 MPa			

Zkusebni misto:	67	a	58	52	56	53	43	53	47	50
Smer mereni:	3	prumer	52		Mez 0.8 = 41			Mez 1.2 = 62		
Karbonatace:		platne	58	52	56	53	43	53	47	50
Vlhkost: suchy		prumer	a = 51.5				Rbe = 61.9 MPa			

Zkusebni misto:	68	a	53	58	53	46	53	51	50	52
Smer mereni:	3	prumer	52		Mez 0.8 = 42			Mez 1.2 = 62		
Karbonatace:		platne	53	58	53	46	53	51	50	52
Vlhkost: suchy		prumer	a = 52				Rbe = 62.9 MPa			

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akce	P O N T E X s.r.o.	strana
Komorany		66

Zkusebni misto:	69	a	60	48	50	56	50	57	60	53
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	60	48	50	56	50	57	60	53
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	70	a	52	52	53	50	50	52	52	48
Smer mereni:	3	prumer	51		Mez 0.8 = 41			Mez 1.2 = 61		
Karbonatace:		platne	52	52	53	50	50	52	52	48
Vlhkost: suchy		prumer	a = 51.1				Rbe = 61.2 MPa			

Zkusebni misto:	71	a	50	53	57	60	59	58	52	60
Smer mereni:	3	prumer	56		Mez 0.8 = 45			Mez 1.2 = 67		
Karbonatace:		platne	50	53	57	60	59	58	52	60
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	72	a	51	50	38	43	40	43	46	48
Smer mereni:	3	prumer	45		Mez 0.8 = 36			Mez 1.2 = 54		
Karbonatace:		platne	51	50	38	43	40	43	46	48
Vlhkost: suchy		prumer	a = 44.9				Rbe = 49.4 MPa			

Zkusebni misto:	73	a	43	46	58	51	56	54	52	50
Smer mereni:	3	prumer	51		Mez 0.8 = 41			Mez 1.2 = 62		
Karbonatace: pH=8		platne	43	46	58	51	56	54	52	50
Vlhkost: suchy		prumer	a = 51.3				Rbe = 61.5 MPa			

Zkusebni misto:	74	a	43	44	40	42	44	48	52	47
Smer mereni:	3	prumer	45		Mez 0.8 = 36			Mez 1.2 = 54		
Karbonatace:		platne	43	44	40	42	44	48	52	47
Vlhkost: suchy		prumer	a = 45				Rbe = 49.6 MPa			

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akce	P O N T E X s.r.o.	strana
		66

Zkusebni misto:	75	a	60	54	53	56	53	56	54	53
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:		platne	60	54	53	56	53	56	54	53
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	76	a	52	44	45	43	46	46	45	52
Smer mereni:	3	prumer	47		Mez 0.8 = 37			Mez 1.2 = 56		
Karbonatace:		platne	52	44	45	43	46	46	45	52
Vlhkost: suchy		prumer	a = 46.6				Rbe = 52.7 MPa			

Zkusebni misto:	77	a	50	53	50	50	48	48	53	48
Smer mereni:	3	prumer	50		Mez 0.8 = 40			Mez 1.2 = 60		
Karbonatace:		platne	50	53	50	50	48	48	53	48
Vlhkost: suchy		prumer	a = 50				Rbe = 59.1 MPa			

Zkusebni misto:	78	a	60	43	50	43	58	58	47	53
Smer mereni:	3	prumer	52		Mez 0.8 = 41			Mez 1.2 = 62		
Karbonatace:		platne	60	43	50	43	58	58	47	53
Vlhkost: suchy		prumer	a = 51.5				Rbe = 61.9 MPa			

Zkusebni misto:	79	a	48	47	50	47	54	53	53	47
Smer mereni:	3	prumer	50		Mez 0.8 = 40			Mez 1.2 = 60		
Karbonatace:		platne	48	47	50	47	54	53	53	47
Vlhkost: suchy		prumer	a = 49.9				Rbe = 58.8 MPa			

Zkusebni misto:	80	a	58	58	51	54	56	53	58	51
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:	pH=8-9	platne	58	58	51	54	56	53	58	51
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

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akce	P O N T E X s.r.o.	strana
Komorany		67

Zkusebni misto:	81	a	51	48	60	58	48	59	51	56
Smer mereni:	3	prumer	54		Mez 0.8 = 43			Mez 1.2 = 65		
Karbonatace:		platne	51	48	60	58	48	59	51	56
Vlhkost: suchy		prumer	a = 53.9				Rbe = 66.5 MPa			

Zkusebni misto:	82	a	56	50	48	46	51	60	46	53
Smer mereni:	3	prumer	51		Mez 0.8 = 41			Mez 1.2 = 62		
Karbonatace:		platne	56	50	48	46	51	60	46	53
Vlhkost: suchy		prumer	a = 51.3				Rbe = 61.5 MPa			

Zkusebni misto:	83	a	62	58	62	48	42	51	64	60
Smer mereni:	3	prumer	56		Mez 0.8 = 45			Mez 1.2 = 67		
Karbonatace:		platne	62	58	62	48	0	51	64	60
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	84	a	56	53	59	56	54	56	56	60
Smer mereni:	3	prumer	56		Mez 0.8 = 45			Mez 1.2 = 68		
Karbonatace:		platne	56	53	59	56	54	56	56	60
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	85	a	51	58	56	38	56	56	60	51
Smer mereni:	3	prumer	53		Mez 0.8 = 43			Mez 1.2 = 64		
Karbonatace:	pH=8-9	platne	51	58	56	0	56	56	60	51
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	86	a	43	43	50	42	50	43	41	49
Smer mereni:	3	prumer	45		Mez 0.8 = 36			Mez 1.2 = 54		
Karbonatace:		platne	43	43	50	42	50	43	41	49
Vlhkost: suchy		prumer	a = 45.1				Rbe = 49.9 MPa			

Schmidtuv tvrdomer N-34 131 474

akce	P O N T E X s.r.o.	strana
Komorany		68

Zkusebni misto: 87	a	58	58	58	60	57	56	58	60
Smer mereni: 3	prumer	58		Mez 0.8 = 47			Mez 1.2 = 70		
Karbonatace: pH=9	platne	58	58	58	60	57	56	58	60
Vlhkost: suchy	prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto: 88	a	58	55	52	56	54	53	52	58
Smer mereni: 3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:	platne	58	55	52	56	54	53	52	58
Vlhkost: suchy	prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto: 89	a	58	60	56	57	59	52	55	54
Smer mereni: 3	prumer	56		Mez 0.8 = 45			Mez 1.2 = 68		
Karbonatace:	platne	58	60	56	57	59	52	55	54
Vlhkost: suchy	prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto: 90	a	60	56	64	56	58	60	54	50
Smer mereni: 3	prumer	57		Mez 0.8 = 46			Mez 1.2 = 69		
Karbonatace:	platne	60	56	64	56	58	60	54	50
Vlhkost: suchy	prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto: 91	a	54	52	49	49	46	55	55	55
Smer mereni: 3	prumer	52		Mez 0.8 = 42			Mez 1.2 = 62		
Karbonatace:	platne	54	52	49	49	46	55	55	55
Vlhkost: suchy	prumer	a = 51.9				Rbe = 62.7 MPa			

Zkusebni misto: 92	a	54	53	49	53	57	52	44	53
Smer mereni: 3	prumer	52		Mez 0.8 = 42			Mez 1.2 = 62		
Karbonatace:	platne	54	53	49	53	57	52	44	53
Vlhkost: suchy	prumer	a = 51.9				Rbe = 62.7 MPa			

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akce	P O N T E X s.r.o.	strana
Komorany		69

Zkusebni misto:	93	a	58	57	56	52	58	57	59	55
Smer mereni:	3	prumer	57		Mez 0.8 = 45			Mez 1.2 = 68		
Karbonatace:		platne	58	57	56	52	58	57	59	55
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	94	a	53	53	56	49	49	51	56	52
Smer mereni:	3	prumer	52		Mez 0.8 = 42			Mez 1.2 = 63		
Karbonatace:		platne	53	53	56	49	49	51	56	52
Vlhkost: suchy		prumer	a = 52.4				Rbe = 63.6 MPa			

Zkusebni misto:	95	a	55	62	56	48	46	57	56	58
Smer mereni:	3	prumer	55		Mez 0.8 = 44			Mez 1.2 = 66		
Karbonatace:	pH=9	platne	55	62	56	48	46	57	56	58
Vlhkost: suchy		prumer	a = 54				Rbe = 66.8 MPa			

Zkusebni misto:	96	a	46	46	53	57	45	57	53	52
Smer mereni:	3	prumer	51		Mez 0.8 = 41			Mez 1.2 = 61		
Karbonatace:		platne	46	46	53	57	45	57	53	52
Vlhkost: suchy		prumer	a = 51.1				Rbe = 61.2 MPa			

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akce	P O N T E X s.r.o.					strana
Komorany						70
Zkusebni misto cislo	a	Rbe	α t	α w	Rbe * α w * α t	
52	54	66.8	.9	.85	51.1	MPa
53	53.9	66.5	.9	.85	50.9	MPa
54	51.9	62.6	.9	.85	47.9	MPa
55	50.8	60.5	.9	.85	46.3	MPa
56	51.9	62.6	.9	.85	47.9	MPa
57	53.8	66.3	.9	.85	50.7	MPa
58	54	66.8	.9	.85	51.1	MPa
59	54	66.8	.9	.85	51.1	MPa
60	53.4	65.5	.9	.85	50.1	MPa
61	53.5	65.8	.9	.85	50.3	MPa
62	54	66.8	.9	.85	51.1	MPa
63	54	66.8	.9	.85	51.1	MPa
64	54	66.8	.9	.85	51.1	MPa
65	54	66.8	.9	.85	51.1	MPa
66	53.6	66	.9	.85	50.5	MPa
67	51.5	61.9	.9	.85	47.4	MPa
68	52	62.9	.9	.85	48.1	MPa
69	54	66.8	.9	.85	51.1	MPa
70	51.1	61.2	.9	.85	46.8	MPa
71	54	66.8	.9	.85	51.1	MPa
72	44.9	49.4	.9	.85	37.8	MPa
73	51.3	61.5	.9	.85	47	MPa
74	45	49.6	.9	.85	38	MPa
75	54	66.8	.9	.85	51.1	MPa
76	46.6	52.7	.9	.85	40.3	MPa

Schmidtuv tvrdomer N-34 131 474

akce	P O N T E X s.r.o.	strana
Komorany		71

77	50	59.1	.9	.85	45.2 MPa
78	51.5	61.9	.9	.85	47.4 MPa
79	49.9	58.8	.9	.85	45 MPa
80	54	66.8	.9	.85	51.1 MPa
81	53.9	66.5	.9	.85	50.9 MPa
82	51.3	61.5	.9	.85	47 MPa
83	54	66.8	.9	.85	51.1 MPa
84	54	66.8	.9	.85	51.1 MPa
85	54	66.8	.9	.85	51.1 MPa
86	45.1	49.9	.9	.85	38.2 MPa
87	54	66.8	.9	.85	51.1 MPa
88	54	66.8	.9	.85	51.1 MPa
89	54	66.8	.9	.85	51.1 MPa
90	54	66.8	.9	.85	51.1 MPa
91	51.9	62.7	.9	.85	47.9 MPa
92	51.9	62.7	.9	.85	47.9 MPa
93	54	66.8	.9	.85	51.1 MPa
94	52.4	63.6	.9	.85	48.7 MPa
95	54	66.8	.9	.85	51.1 MPa
96	51.1	61.2	.9	.85	46.8 MPa

Schmidtuv tvrdomer N-34 131 474

akce	P O N T E X s.r.o.	strana
Komorany		72

Zkusebni misto cislo	a	Rbe	α	Rbe * α
52	54	51.1	.65	33.2 MPa
53	53.9	50.9	.65	33.1 MPa
54	51.9	47.9	.65	31.1 MPa
55	50.8	46.3	.65	30.1 MPa
56	51.9	47.9	.65	31.1 MPa
57	53.8	50.7	.65	33 MPa
58	54	51.1	.65	33.2 MPa
59	54	51.1	.65	33.2 MPa
60	53.4	50.1	.65	32.6 MPa
61	53.5	50.3	.65	32.7 MPa
62	54	51.1	.65	33.2 MPa
63	54	51.1	.65	33.2 MPa
64	54	51.1	.65	33.2 MPa
65	54	51.1	.65	33.2 MPa
66	53.6	50.5	.65	32.8 MPa
67	51.5	47.4	.65	30.8 MPa
68	52	48.1	.65	31.3 MPa
69	54	51.1	.65	33.2 MPa
70	51.1	46.8	.65	30.4 MPa
71	54	51.1	.65	33.2 MPa
72	44.9	37.8	.65	24.6 MPa
73	51.3	47	.65	30.6 MPa
74	45	38	.65	24.7 MPa
75	54	51.1	.65	33.2 MPa
76	46.6	40.3	.65	26.2 MPa

Schmidtuv tvrdomer N-34 131 474

akce	P O N T E X s.r.o.	strana
Komorany		73

77	50	45.2	.65	29.4 MPa
78	51.5	47.4	.65	30.8 MPa
79	49.9	45	.65	29.3 MPa
80	54	51.1	.65	33.2 MPa
81	53.9	50.9	.65	33.1 MPa
82	51.3	47	.65	30.6 MPa
83	54	51.1	.65	33.2 MPa
84	54	51.1	.65	33.2 MPa
85	54	51.1	.65	33.2 MPa
86	45.1	38.2	.65	24.8 MPa
87	54	51.1	.65	33.2 MPa
88	54	51.1	.65	33.2 MPa
89	54	51.1	.65	33.2 MPa
90	54	51.1	.65	33.2 MPa
91	51.9	47.9	.65	31.2 MPa
92	51.9	47.9	.65	31.2 MPa
93	54	51.1	.65	33.2 MPa
94	52.4	48.7	.65	31.6 MPa
95	54	51.1	.65	33.2 MPa
96	51.1	46.8	.65	30.4 MPa

Schmidtuv tvrdomer N-34 131 474		
akce	P O N T E X s.r.o.	strana
Komorany		74
Zkousena cast konstrukce: SLOUPY A,B +29,75		

VYPOCET ZARUCENE PEVNOSTI

CSN 73 2011,clanek 4.2.7.1

ARITMETICKY PRUMER PEVNOSTI $R_{be} = 31.6 \text{ MPa}$
SOUCINITEL $\beta_n = 1.65$
/ PRO 45 ZKUSEBNICH MIST /

SMERODATNA ODCHYLKA VYVRTU $S_{rez} = 5.4 \text{ MPa}$
/ NEJSOU-LI, $S_{rez}=2.5$ /

SMERODATNA ODCHYLKA SCHMIDTU $S = 2.4 \text{ MPa}$

$$S_r = \sqrt{S^2 + S_{rez}^2} = \sqrt{2.4^2 + 5.4^2} = 5.9 \text{ MPa}$$

VYBEROVA SMERODATNA ODCHYLKA $S_r = 5.9 \text{ MPa}$

$$R_{bg} = R_{be} - \beta_n * S_r = 31.6 - 1.65 * 5.9 = 21.9 \text{ MPa}$$

ZARUCENA PEVNOST BETONU

$$R_{bg} = 21.9 \text{ MPa}$$

ODPOVIDAJICI KVALITA BETONU

B 250

CSN 73 2400,zm. b,tab. 9

B 20

KOMOŘANY – DILATAČNÍ CELEK K1

VÝZTUŽ SLOUPŮ

LEGENDA:

- K – KRYCÍ VRSTVA (KRYTÍ) [mm]
- T – TRMÍNKY
- R – PROFIL VÝZTUŽE ROXOR; ZNAČKA VE VÝKRESU ➔
- φ – PROFIL VÝZTUŽE KRUHOVÝ; ZNAČKA VE VÝKRESU •
- XRY – X JE POČET** PRUTŮ VÝZTUŽE; Y JE PRŮMĚR* VÝZTUŽE [mm]
- XφY
- P – PRUTY VÝZTUŽE PŘESAHOJÍCÍ DO VYŠETŘOVANÉHO ŘEZU Z JINÉ ÚROVNĚ (PŘESAHY); ZNAČKA VE VÝKRESU +
-
- * – NENÍ-LI UVEDENO JINAK, JE PRŮMĚR ROXORU MĚŘEN PO ÚHLOPŘÍČCE
- ** – NENÍ-LI Z VÝKRESU PATRNO JINÉ USPOŘÁDÁNÍ, JE ROHOVÝ PRUT ZAPOČÍTÁN DO OBOU PŘILEHLÝCH VRSTEV VÝZTUŽE

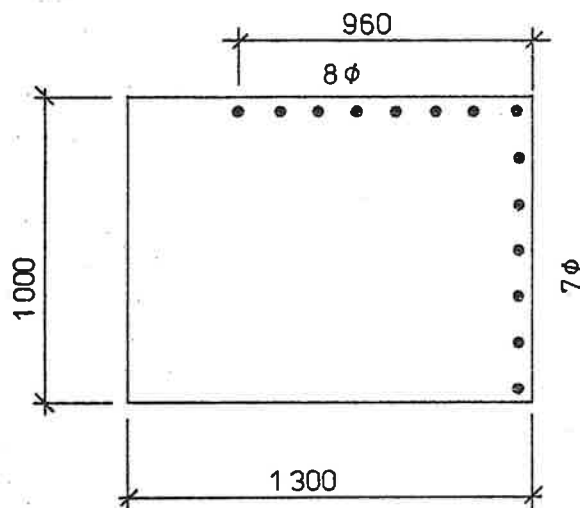
POZN.: ŠIPKA UDÁVAJÍCÍ ORIENTACI PLATÍ PRO VŠECHNY ŘEZY NA PŘÍSLUŠNÉM VÝKRESE

KOMOŘANY — DILATAČNÍ CELEK K1

VÝZTUŽ SLOUPŮ

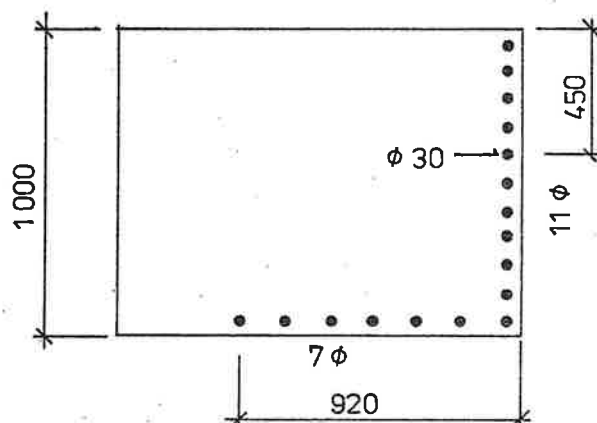
řada C →

B2 +0,20



TŘMÍNKY (T) PO 400mm

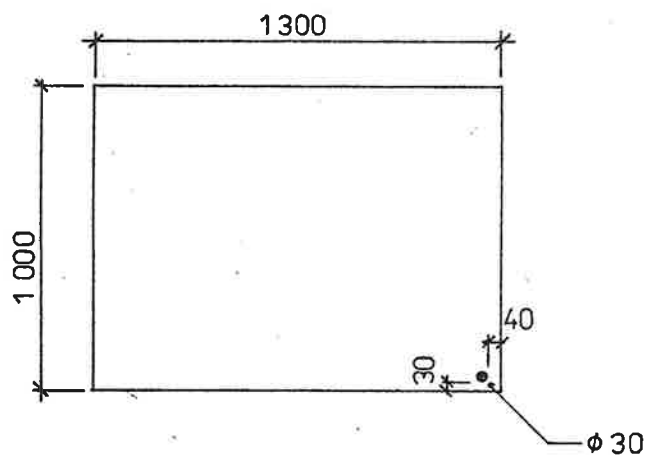
B3 +0,20



ŘEZ V ÚROVNI +1,30

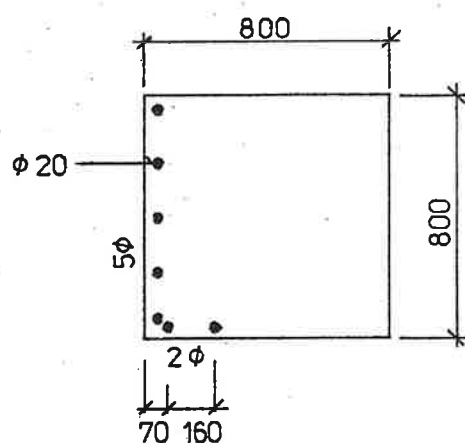
KRYTÍ (K) 25-40mm

B4 +0,20



řada D →

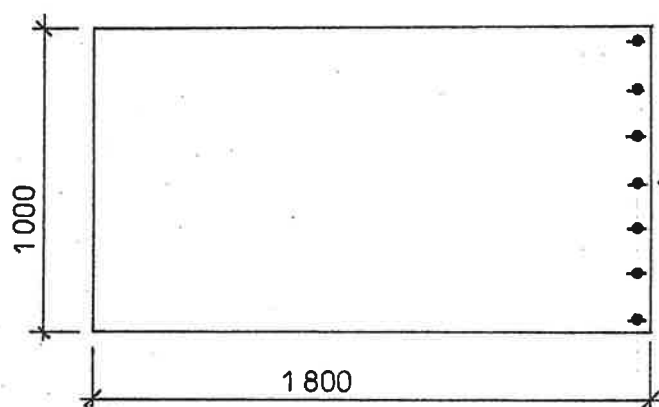
C2 +0,20



K 50 mm

T PO 250 mm

C3 +0,20

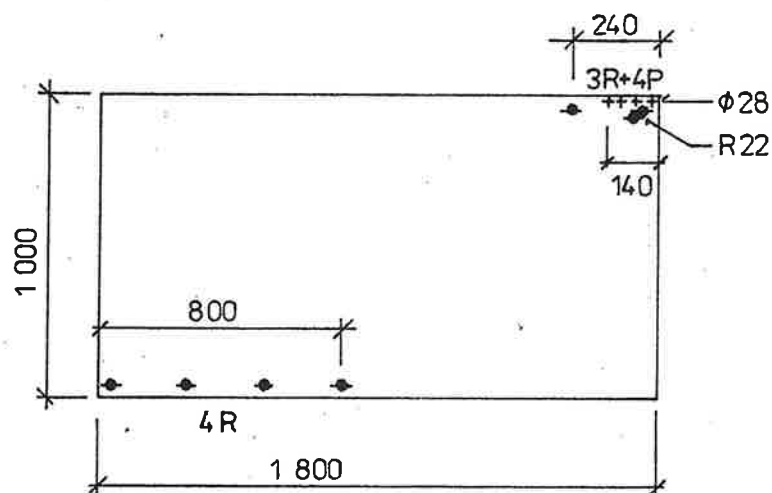


K 55 mm

T R10



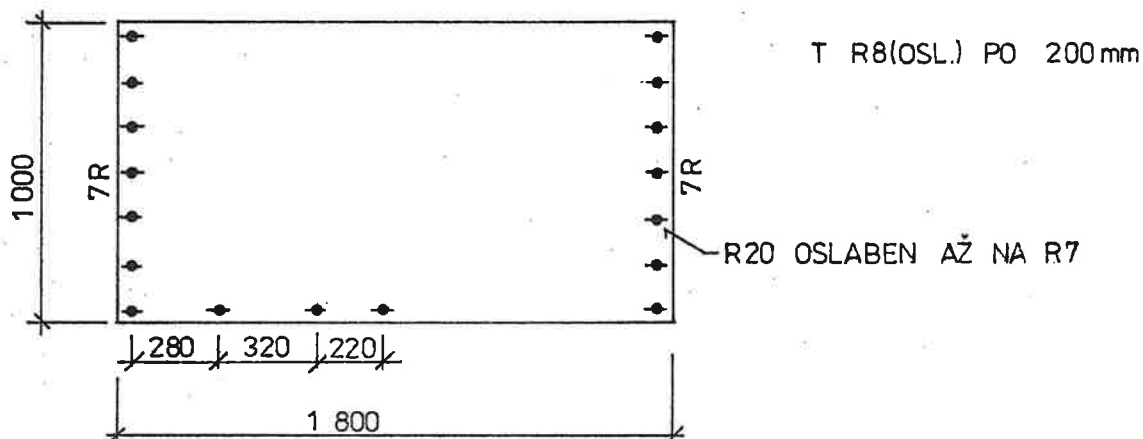
C4 +0,20



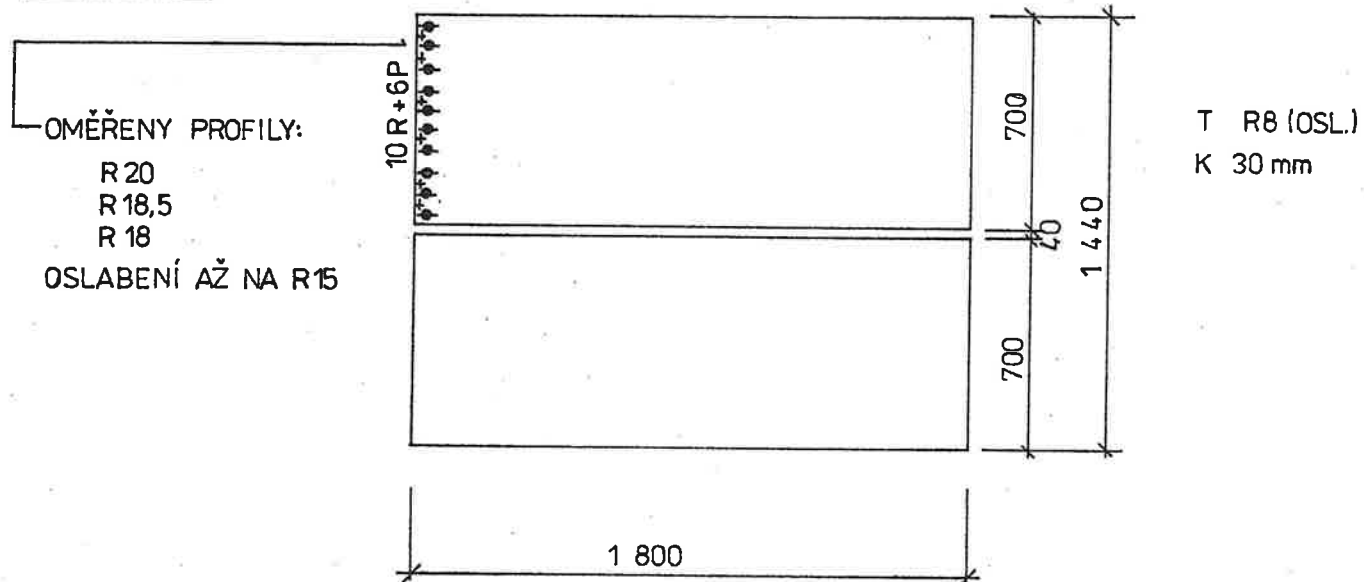
T R PO 200 mm

řada D →

C5 +0,20

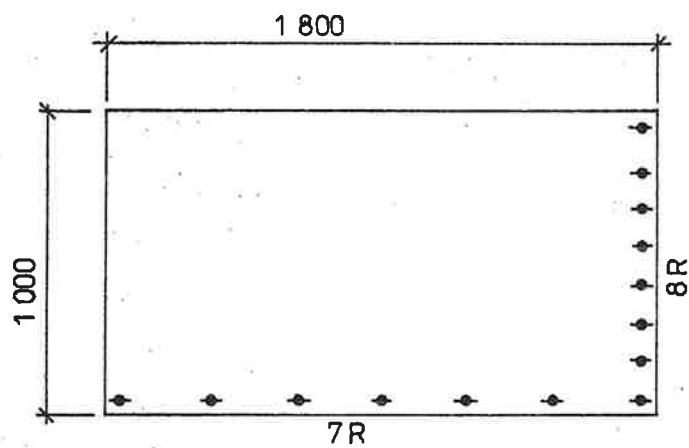


C6 +0,20

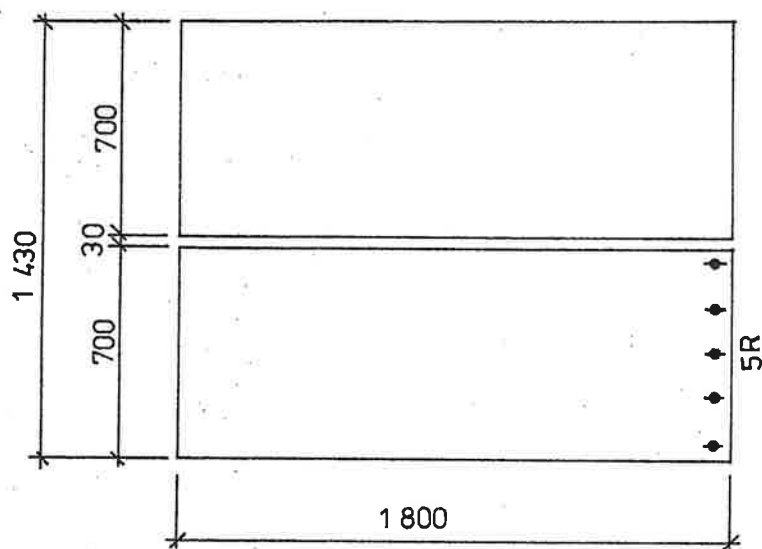


řada E →

D5 +0,20

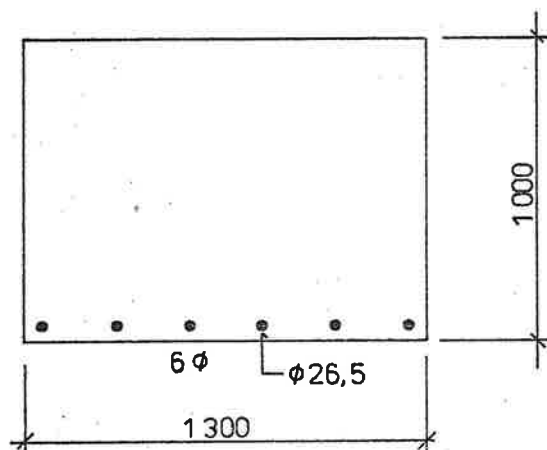


D6 +0,20

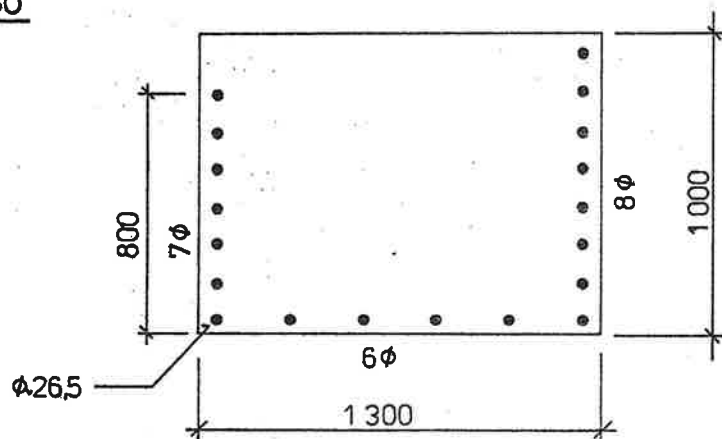


řada B →

A3 +4,30



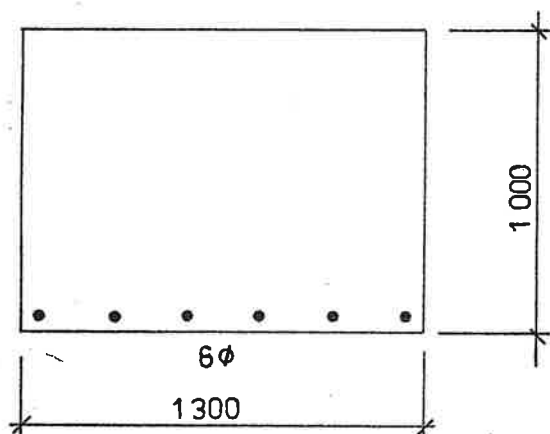
A4 +4,30



K 40 mm

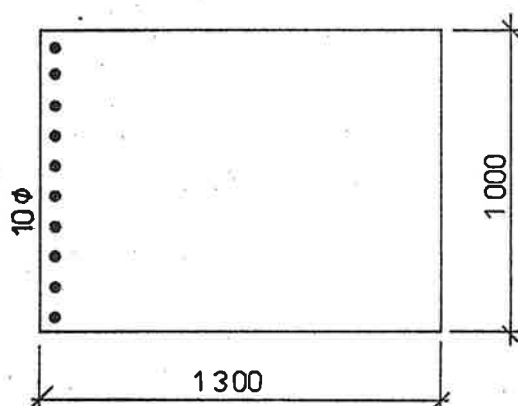
T PO 280 mm

A5 +4,30

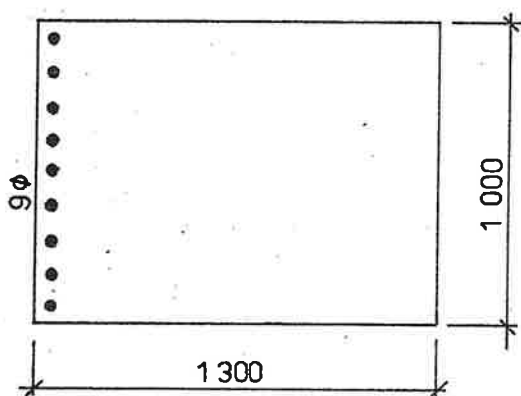


řada C →

B3 +4,30

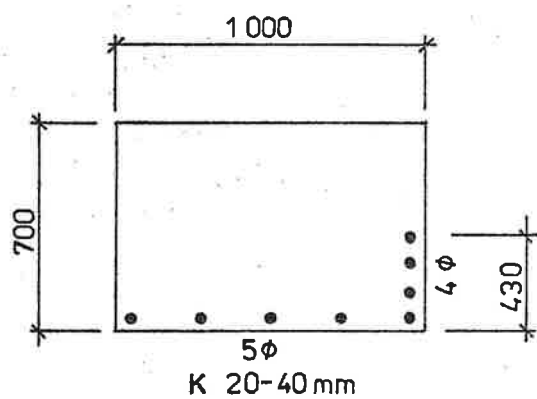


B4 +4,30



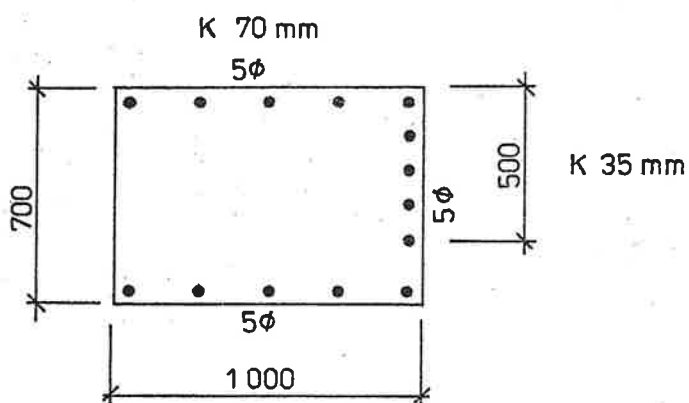
K 40 mm

A3 +18,50

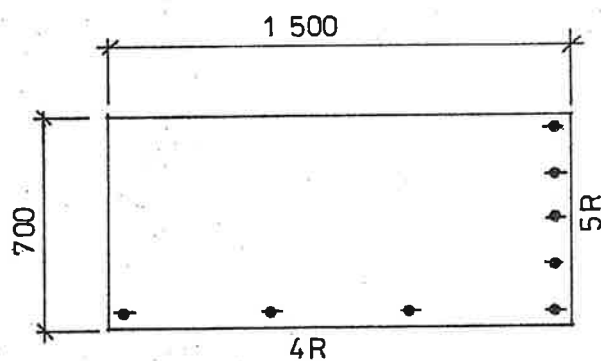


řada B →

A4 +18,50



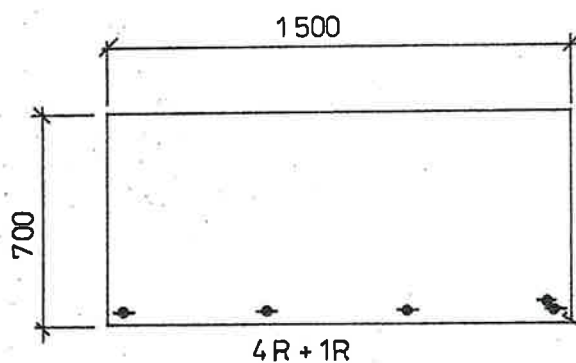
C4 + 23,90



řada D →

K 30 mm

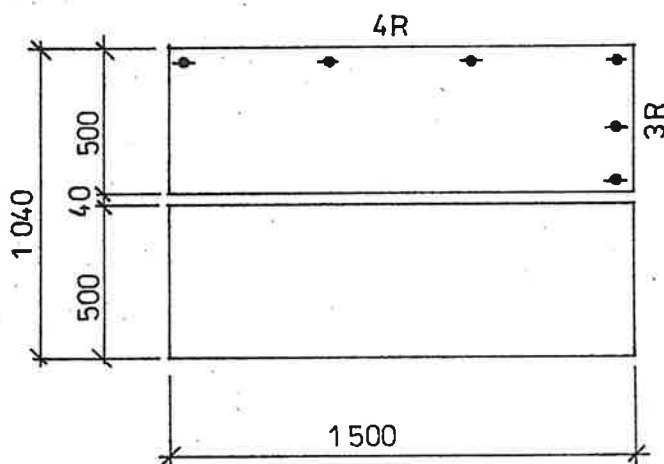
C5. + 23,90



T R 10

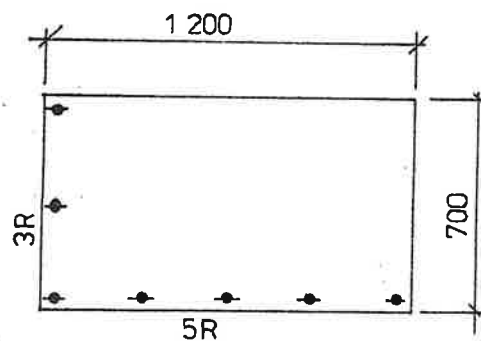
ZDVOJENÍ - OMĚŘEN R 22
(? STYKOVÁNÍ)

C6 + 23,90



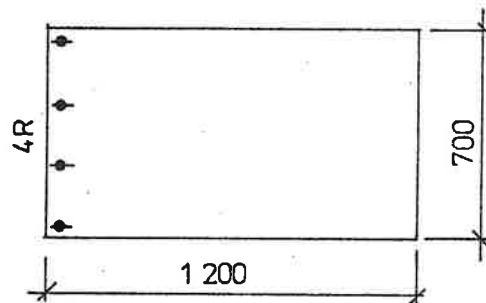
T R 10

D3 +23,90



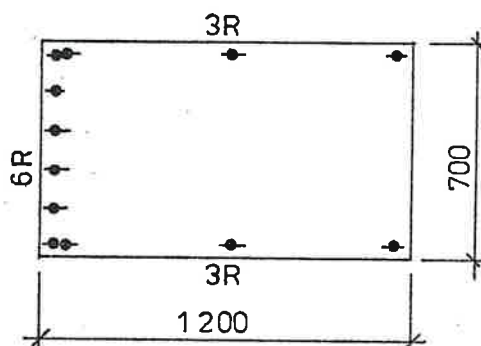
řada E →

D4 +23,90



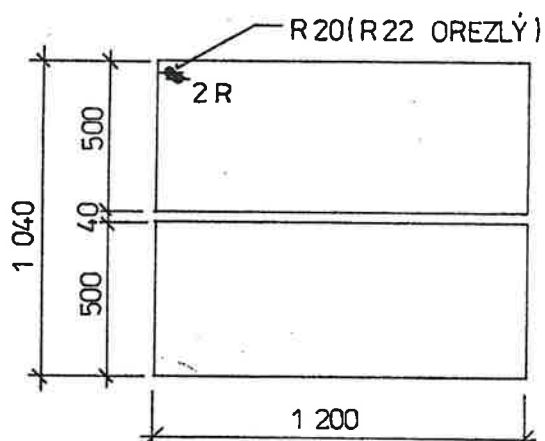
T R10

D5 +23,90



T PO 200 mm

D6 +23,90



DÁLE BYLO ZMĚŘENO:

D8 +23,90 R18 (OSL.)
R19 (OSL.)

D10 +23,90 R22

Tabulka stupňů vyztužení (nejméně příznivé případy)

Šířka B [m]	Výška H [m]	Plocha Ab [m ²]	Plocha Aa [m ²]	Stupeň vyztužení	Min. stupeň dle ČSN
1.00	1.80	1.80	0.00223	0.00124	> 0,00088
0.70	1.50	1.05	0.00159	0.00151	> 0,00088
1.00	1.30	1.30	0.00441	0.00339	> 0,00167
0.70	1.20	0.84	0.00095	0.00114	> 0,00088
0.70	1.00	0.70	0.00157	0.00224	> 0,00167
0.80	0.80	0.64	0.00049	0.00077	< 0,00088 > 0,0003

Minimální stupně vyztužení:

kruhová výztuž $\rho_{st,min} = 0,00167$
 $\rho_{sc,min} = 0,0003$
 roxor $\rho_{st,min} = 0,00088$
 $\rho_{sc,min} = 0,0003$

Z výše uvedených hodnot je patrné, že je možno všechny sloupy posuzovat jako železobetonové, u sloupu schodiště C2 (800/800) pouze pro případ malé výstřednosti.