

Závěrečné posouzení rozhodujícího průřezu - prut 168

RADA AB - PROSTOROVY MODEL

(VEŠKERÉ BATŽELU KONE BAGHOUSE)

EXTREMNI UCINKY NA ROZHODUJICI SLOUP VCETNE - SOUCINITELU ZATIZENI
- SOUCINITELU KOMBINACE

SUPER - KOMENTOVANY OTISK VSTUPNICH DAT

SUPERPOSICE ZATEZOVACICH STAVU - POPIS KOMBINACI

NAZEV :

KOMB-1

Cislo kombinace: 1

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	0	0	0	2	3	4
KOEFICIENTY:	1.1	1.1	.96	1.1	1.08	1.08	1.12	1.12	.96

NAZEV :

KOMB-2

Cislo kombinace: 2

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	0	0	0	2	3	4
KOEFICIENTY:	0.9	0.9	.96	0.9	0.9	0.9	1.12	1.12	.96

- 1 - VLASTNI TIHA PRUTU
- 2 - DALSI STALE
- 3 - UZITNE
- 4 - REAKCE VAZNIKU
- 5 - ZAUHLOVACI PASY
- 6 - OCELOVA CAST ZASOBNIKU
- 7 - UHLI SVISLY TLAK
- 8 - UHLI VODOROVNY TLAK
- 9 - VITR

ZÁVĚREČNÉ POSOUŽENÍ - POROVNÁVACÍ PRŮJEKT → PRŮT 168, ZÁČATEK

RADA AB - PROSTOROVÝ MODEL

VEŠKERÉ ZATÍŽENÍ KROMĚ BAHNOSE

KOMB-1

SUPER-168

VNITRNÍ SILY V PRŮTECH (kN, kNm)

	N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace								

PRUT	168, x-lok = .00														

ZS. 01	-708.43	30.84	42.20	-6.29	-146.17	-147.73									
ZS. 02	-386.79	2.25	22.29	-3.23	-74.53	-18.51									
ZS. 03	-124.40	14.68	5.55	-.79	-19.18	-56.19									
ZS. 04	-234.67	-2.90	3.02	-.34	-10.75	8.38									
ZS. 05	-94.80	12.94	3.26	-.25	-11.41	-41.73									
ZS. 06	-5.57	.75	1.79	-.26	-6.23	-4.71									
ZS. 07	-303.37	42.44	52.93	-3.84	-185.16	-321.48									
ZS. 08	-105.69	341.76	8.79	7.24	-21.68	-473.66									
ZS. 09	-19.87	4.91	1.59	-.67	-5.60	-27.09									

max N-x	-1571.27	47.98	79.73	-11.39	-273.65	-223.79	1	2	4	5	6				
min N-x	-2167.92	497.10	155.70	-8.98	-529.09	-1194.30	1	2	3	4	5	6	7	8	9
max M-z	-1571.27	47.98	79.73	-11.39	-273.65	-223.79	1	2	4	5	6				
min M-z	-2167.92	497.10	155.70	-8.98	-529.09	-1194.30	1	2	3	4	5	6	7	8	9

KOMB-2

SUPER-168

VNITRNÍ SILY V PRŮTECH (kN, kNm)

	N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace								
PRUT	168, x-lok = .00														
ZS. 01	-708.43	30.84	42.20	-6.29	-146.17	-147.73									
ZS. 02	-386.79	2.25	22.29	-3.23	-74.53	-18.51									
ZS. 03	-124.40	14.68	5.55	-.79	-19.18	-56.19									
ZS. 04	-234.67	-2.90	3.02	-.34	-10.75	8.38									
ZS. 05	-94.80	12.94	3.26	-.25	-11.41	-41.73									
ZS. 06	-5.57	.75	1.79	-.26	-6.23	-4.71									
ZS. 07	-303.37	42.44	52.93	-3.84	-185.16	-321.48									
ZS. 08	-105.69	341.76	8.79	7.24	-21.68	-473.66									
ZS. 09	-19.87	4.91	1.59	-.67	-5.60	-27.09									
max N-x	-1287.23	39.48	65.31	-9.33	-224.18	-183.86	1	2	4	5	6				
min N-x	-1883.87	488.60	141.29	-6.92	-479.62	-1154.37	1	2	3	4	5	6	7	8	9
max M-z	-1287.23	39.48	65.31	-9.33	-224.18	-183.86	1	2	4	5	6				
min M-z	-1883.87	488.60	141.29	-6.92	-479.62	-1154.37	1	2	3	4	5	6	7	8	9

PŘEHLED ZATÍŽENÍ OD BAGHOUSE

Zatěžovací stav	Uzel	Rx [kN]	Rz [kN]	Ry [kN]	M [kN.m]
Stálé	68	-25.95	-3.30	-654.97	404.44
	79	16.13	6.46	-449.52	126.83
	70	-13.64	-2.47	-628.83	-218.47
	81	23.45	-5.04	-469.15	-309.80
Užitné	68	-13.13	0.41	-366.09	222.51
	79	7.55	0.27	-207.44	60.14
	70	-5.50	-1.74	-350.26	-133.41
	81	11.08	-2.62	-211.04	-143.74
Ventilátor+	68	-0.46	-2.23	-12.47	7.65
	79	0.15	-2.24	-0.41	-0.47
	70	-0.21	-1.76	-14.05	-5.40
	81	0.04	-2.21	-2.07	-1.13
Ventilátor-	68	0.46	2.23	12.47	-7.65
	79	-0.15	2.24	0.41	0.47
	70	0.21	1.76	14.05	5.40
	81	-0.04	2.21	2.07	1.13
Demag	68	-2.11	0.63	3.71	7.63
	79	2.10	0.67	-4.70	-7.13
	70	-2.26	-0.21	5.86	12.58
	81	2.27	-0.27	-7.30	-13.29
Sníh	68	-0.91	0.22	-21.72	13.77
	79	0.57	0.21	-12.58	3.27
	70	-0.46	0.01	-20.87	-7.36
	81	0.80	-0.02	-13.63	-9.65
Vitr Y+	68	-31.00	63.31	113.11	85.52
	79	29.90	63.89	-112.79	-80.78
	70	-34.09	38.43	192.20	236.48
	81	35.20	49.64	-114.89	-206.53
Vitr Y-	68	31.01	-63.31	-113.11	-85.53
	79	-29.90	-63.89	112.79	80.80
	70	34.09	-38.43	-192.21	-236.49
	81	-35.20	-49.64	114.80	206.54
Vitr X+	68	77.81	-2.27	54.00	-366.70
	79	69.06	-1.93	46.00	-324.54
	70	77.69	0.40	-38.10	-358.99
	81	68.94	0.64	-38.00	-320.46
Vitr X-	68	-77.70	2.29	-54.00	366.22
	79	-68.70	1.96	-45.90	322.98
	70	-77.60	-0.43	37.90	358.50
	81	-68.59	-0.67	37.70	318.81

POPIS ZATEZOVACICH STAVU - ZS 1
BAGHOUSE - STALE

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.		VELIKOST		
V SERII			ZATIZENI		
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	-25.95
79	0	0	0	1	16.13
70	0	0	0	1	-13.64
81	0	0	0	1	23.45
68	0	0	0	3	-3.3
79	0	0	0	3	6.46
70	0	0	0	3	-2.47
81	0	0	0	3	-5.04
68	0	0	0	2	-654.97
79	0	0	0	2	-449.52
70	0	0	0	2	-628.83
81	0	0	0	2	-469.15
68	0	0	1	3	404.44
79	0	0	1	3	126.83
70	0	0	1	3	-218.47
81	0	0	1	3	-309.80

POPIS ZATEZOVACICH STAVU - ZS 2
BAGHOUSE - UZITNE

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.		VELIKOST		
V SERII			ZATIZENI		
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	-13.13
79	0	0	0	1	7.55
70	0	0	0	1	-5.50
81	0	0	0	1	11.08
68	0	0	0	3	0.41
79	0	0	0	3	0.27
70	0	0	0	3	-1.74
81	0	0	0	3	-2.62
68	0	0	0	2	-366.09
79	0	0	0	2	-207.44
70	0	0	0	2	-350.26
81	0	0	0	2	-211.04
68	0	0	1	3	222.51
79	0	0	1	3	60.14
70	0	0	1	3	-133.41
81	0	0	1	3	-143.74

POPIS ZATEZOVACICH STAVU - ZS 3
BAGHOUSE - VENTILATOR +

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.	VELIKOST			
V SERII		ZATIZENI			
PRVNI POSL.	T1	T2	SMER		
68	0	0	0 1	-0.460	
79	0	0	0 1	0.150	
70	0	0	0 1	-0.210	
81	0	0	0 1	0.040	
68	0	0	0 3	-2.23	
79	0	0	0 3	-2.24	
70	0	0	0 3	-1.76	
81	0	0	0 3	-2.21	
68	0	0	0 2	-12.470	
79	0	0	0 2	-0.4100	
70	0	0	0 2	-14.050	
81	0	0	0 2	-2.0700	
68	0	0	1 3	7.6500	
79	0	0	1 3	-0.470	
70	0	0	1 3	-5.4000	
81	0	0	1 3	-1.1300	

POPIS ZATEZOVACICH STAVU - ZS 4
BAGHOUSE - VENTILATOR -

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.	VELIKOST			
V SERII					
PRVNI POSL.	T1	T2	SMER	ZATIZENI	
68	0	0	0 1	0.460	
79	0	0	0 1	-0.15	
70	0	0	0 1	0.210	
81	0	0	0 1	-0.04	
68	0	0	0 3	2.23	
79	0	0	0 3	2.24	
70	0	0	0 3	1.76	
81	0	0	0 3	2.21	
68	0	0	0 2	12.47	
79	0	0	0 2	0.41	
70	0	0	0 2	14.05	
81	0	0	0 2	2.07	
68	0	0	1 3	-7.65	
79	0	0	1 3	0.47	
70	0	0	1 3	5.40	
81	0	0	1 3	1.13	

POPIS ZATEZOVACICH STAVU - ZS 5
BAGHOUSE - DEMAG

ZATIZENI UZLU {kN,kNm}, [mm, mm/m]				
CISLO UZLU	TYPY ZATIZ.	VELIKOST		
V SERII		ZATIZENI		
PRVNI POSL.	T1	T2	SMER	
68	0	0	0 1	-2.11
79	0	0	0 1	2.10
70	0	0	0 1	-2.26
81	0	0	0 1	2.27
68	0	0	0 3	0.63
79	0	0	0 3	0.67
70	0	0	0 3	-0.21
81	0	0	0 3	-0.27
68	0	0	0 2	3.71
79	0	0	0 2	-4.70
70	0	0	0 2	5.86
81	0	0	0 2	-7.30
68	0	0	1 3	7.63
79	0	0	1 3	-7.13
70	0	0	1 3	12.58
81	0	0	1 3	-13.29

POPIS ZATEZOVACICH STAVU - ZS 6
BAGHOUSE - SNIH

ZATIZENI UZLU [kN,kNm], [mm, mm/m]				
CISLO UZLU	TYPY ZATIZ.	VELIKOST		
V SERII		ZATIZENI		
PRVNI POSL.	T1	T2	SMER	
68	0	0	0 1	-0.91
79	0	0	0 1	0.57
70	0	0	0 1	-0.46
81	0	0	0 1	0.80
68	0	0	0 3	0.22
79	0	0	0 3	0.21
70	0	0	0 3	0.01
81	0	0	0 3	-0.02
68	0	0	0 2	-21.72
79	0	0	0 2	-12.58
70	0	0	0 2	-20.87
81	0	0	0 2	-13.63
68	0	0	1 3	13.77
79	0	0	1 3	3.27
70	0	0	1 3	-7.36
81	0	0	1 3	-9.65

POPIS ZATEZOVACICH STAVU - ZS 7
BAGHOUSE - VITR Y+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY	ZATIZ.	VELIKOST		
V SERII	ZATIZENI				
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	-31.00
79	0	0	0	1	29.90
70	0	0	0	1	-34.09
81	0	0	0	1	35.20
68	0	0	0	3	63.31
79	0	0	0	3	63.89
70	0	0	0	3	38.43
81	0	0	0	3	49.64
68	0	0	0	2	113.11
79	0	0	0	2	-112.79
70	0	0	0	2	192.20
81	0	0	0	2	-114.89
68	0	0	1	3	85.52
79	0	0	1	3	-80.78
70	0	0	1	3	236.48
81	0	0	1	3	-206.53

POPIS ZATEZOVACICH STAVU - ZS 8
BAGHOUSE - VITR Y-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY	ZATIZ.	VELIKOST		
V SERII	ZATIZENI				
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	31.01
79	0	0	0	1	-29.90
70	0	0	0	1	34.09
81	0	0	0	1	-35.20
68	0	0	0	3	-63.31
79	0	0	0	3	-63.89
70	0	0	0	3	-38.43
81	0	0	0	3	-49.64
68	0	0	0	2	-113.11
79	0	0	0	2	112.79
70	0	0	0	2	-192.21
81	0	0	0	2	114.80
68	0	0	1	3	-85.53
79	0	0	1	3	80.80
70	0	0	1	3	-236.49
81	0	0	1	3	206.54

POPIS ZATEZOVACICH STAVU - ZS 9
BAGHOUSE - VITR X+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.	VELIKOST			
V SERII		ZATIZENI			
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	77.81
79	0	0	0	1	69.06
70	0	0	0	1	77.69
81	0	0	0	1	68.94
68	0	0	0	3	-2.27
79	0	0	0	3	-1.93
70	0	0	0	3	0.40
81	0	0	0	3	0.64
68	0	0	0	2	54.00
79	0	0	0	2	46.00
70	0	0	0	2	-38.10
81	0	0	0	2	-38.00
68	0	0	1	3	-366.70
79	0	0	1	3	-324.54
70	0	0	1	3	-358.99
81	0	0	1	3	-320.46

POPIS ZATEZOVACICH STAVU - ZS 10
BAGHOUSE - VITR X-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]					
CISLO UZLU	TYPY ZATIZ.	VELIKOST			
V SERII		ZATIZENI			
PRVNI POSL.	T1	T2	SMER		
68	0	0	0	1	-77.70
79	0	0	0	1	-68.70
70	0	0	0	1	-77.60
81	0	0	0	1	-68.59
68	0	0	0	3	2.29
79	0	0	0	3	1.96
70	0	0	0	3	-0.43
81	0	0	0	3	-0.67
68	0	0	0	2	-54.00
79	0	0	0	2	-45.90
70	0	0	0	2	37.90
81	0	0	0	2	37.70
68	0	0	1	3	366.22
79	0	0	1	3	322.98
70	0	0	1	3	358.50
81	0	0	1	3	318.81

RADA AB - PROSTOROVY MODEL (KOMBINACE JEDNOTLIVYCH SLOZEK BAGHOUSE)

SUPERPOSICE ZATEZOVACICH STAVU - POPIS KOMBINACI

NAZEV :

KOMB-1

Cislo kombinace: 1

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9	10
SKUPINY :	0	1	2	2	3	4	5	5	5	5
KOEFICIENTY:	1.	.67	.8	.8	.8	.8	.8	.8	.8	.8

NAZEV :

KOMB-2

Cislo kombinace: 2

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9	10
SKUPINY :	0	1	2	2	3	4	5	5	5	5
KOEFICIENTY:	1.	.83	.6	.6	.6	.6	.8	.8	.8	.8

NAZEV :

KOMB-3

Cislo kombinace: 3

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9	10
SKUPINY :	0	1	2	2	3	4	5	5	5	5
KOEFICIENTY:	1.	.67	.6	.6	.6	.6	1.	1.	1.	1.

- 1 - BAGHOUSE - STALE
- 2 - BAGHOUSE - UZITNE
- 3 - BAGHOUSE - VENTILATOR +
- 4 - BAGHOUSE - VENTILATOR -
- 5 - BAGHOUSE - DEMAG
- 6 - BAGHOUSE - SNIH
- 7 - BAGHOUSE - VITR Y+
- 8 - BAGHOUSE - VITR Y-
- 9 - BAGHOUSE - VITR X+
- 10 - BAGHOUSE - VITR X-

RADA AB - PROSTOROVY MODEL

JEDNOTLIVÉ SLOŽKY ZATÍŽENÍ OD BAGHOUSE

KOMB-1

SUPER-1

VNITRNI SILY V PRUTECH (kN, kNm)

	N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace
PRUT 168, x-lok = .00							
ZS. 01	-549.74	-20.03	.47	.21	-.94	81.44	
ZS. 02	-307.15	-11.46	.05	.16	.26	45.86	
ZS. 03	-12.36	-.44	-.03	.02	.10	1.74	
ZS. 04	12.36	.44	.03	-.02	-.10	-1.74	
ZS. 05	6.70	.28	.04	.03	-.18	-.34	
ZS. 06	-18.23	-.67	.01	.01	.00	2.74	
ZS. 07	195.19	6.90	.77	.22	-3.15	-14.71	
ZS. 08	-195.20	-6.90	-.77	-.22	3.14	14.71	
ZS. 09	-117.97	3.91	3.15	-1.27	-10.89	-55.71	
ZS. 10	117.63	-3.90	-3.14	1.27	10.85	55.57	
max N-x	-378.34	-13.94	1.14	.40	-3.68	68.01	1 4 5 7
min N-x	-936.16	-34.12	-.13	.17	1.83	127.51	1 2 3 6 8
max M-z	-685.90	-31.71	-2.02	1.36	8.00	160.19	1 2 3 6 10
min M-z	-628.87	-16.33	3.04	-.79	-9.88	35.21	1 4 5 9

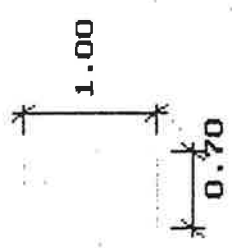
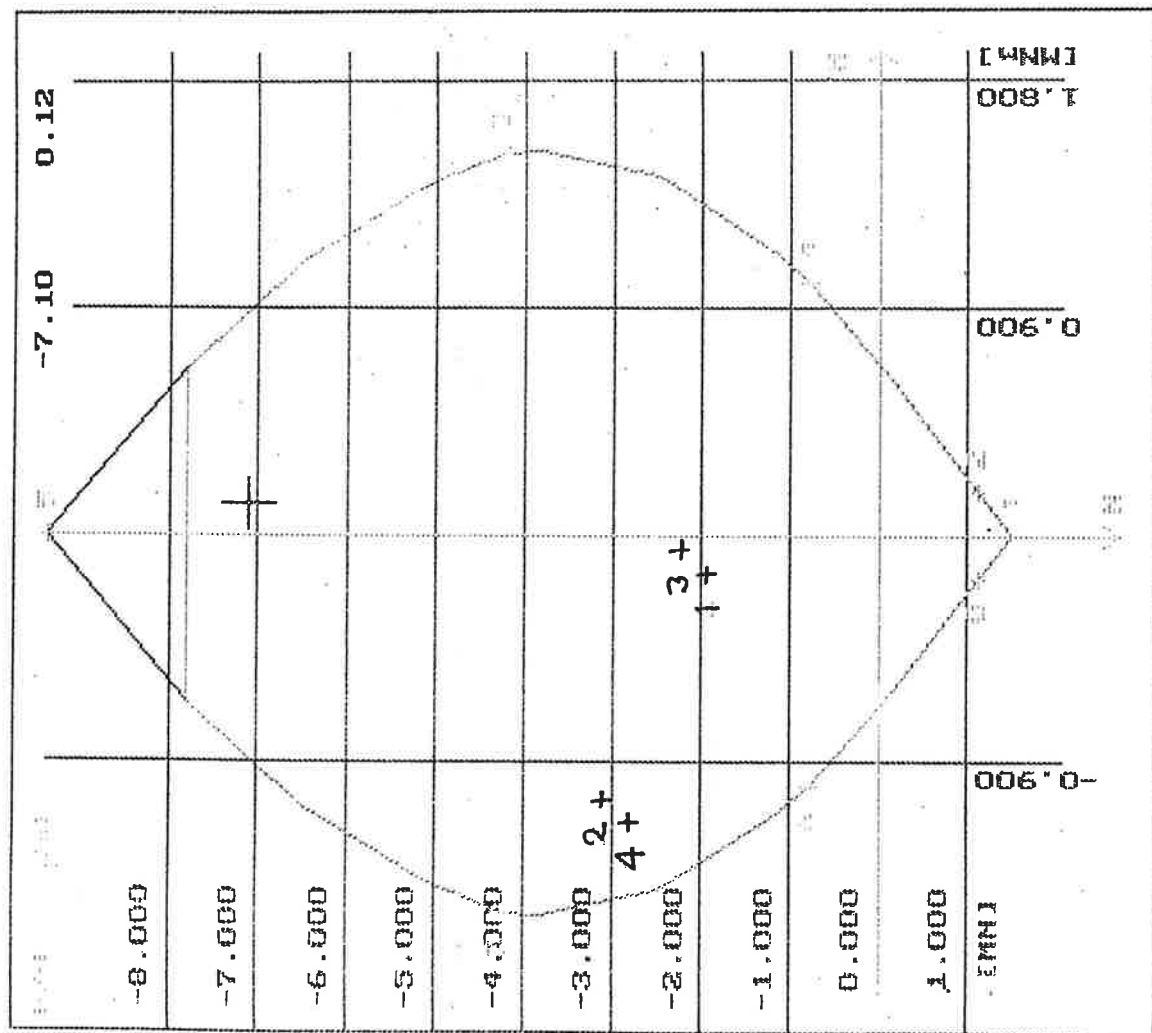
KOMB-2

SUPER-1

VNITRNI SILY V PRUTECH (kN, kNm)

	N-x	Q-y	Q-z	M-x	M-y	M-z	Kombinace
PRUT 168, x-lok = .00							
ZS. 01	-549.74	-20.03	.47	.21	-.94	81.44	
ZS. 02	-307.15	-11.46	.05	.16	.26	45.86	
ZS. 03	-12.36	-.44	-.03	.02	.10	1.74	
ZS. 04	12.36	.44	.03	-.02	-.10	-1.74	
ZS. 05	6.70	.28	.04	.03	-.18	-.34	
ZS. 06	-18.23	-.67	.01	.01	.00	2.74	
ZS. 07	195.19	6.90	.77	.22	-3.15	-14.71	
ZS. 08	-195.20	-6.90	-.77	-.22	3.14	14.71	
ZS. 09	-117.97	3.91	3.15	-1.27	-10.89	-55.71	
ZS. 10	117.63	-3.90	-3.14	1.27	10.85	55.57	
max N-x	-382.15	-14.08	1.13	.40	-3.62	68.42	1 4 5 7
min N-x	-979.19	-35.73	-.12	.19	1.85	133.95	1 2 3 6 8
max M-z	-728.92	-33.32	-2.01	1.38	8.02	166.63	1 2 3 6 10
min M-z	-632.68	-16.47	3.03	-.80	-9.82	35.62	1 4 5 9

2024-11-27 (13)



As1:2444.9	As2:2052.2
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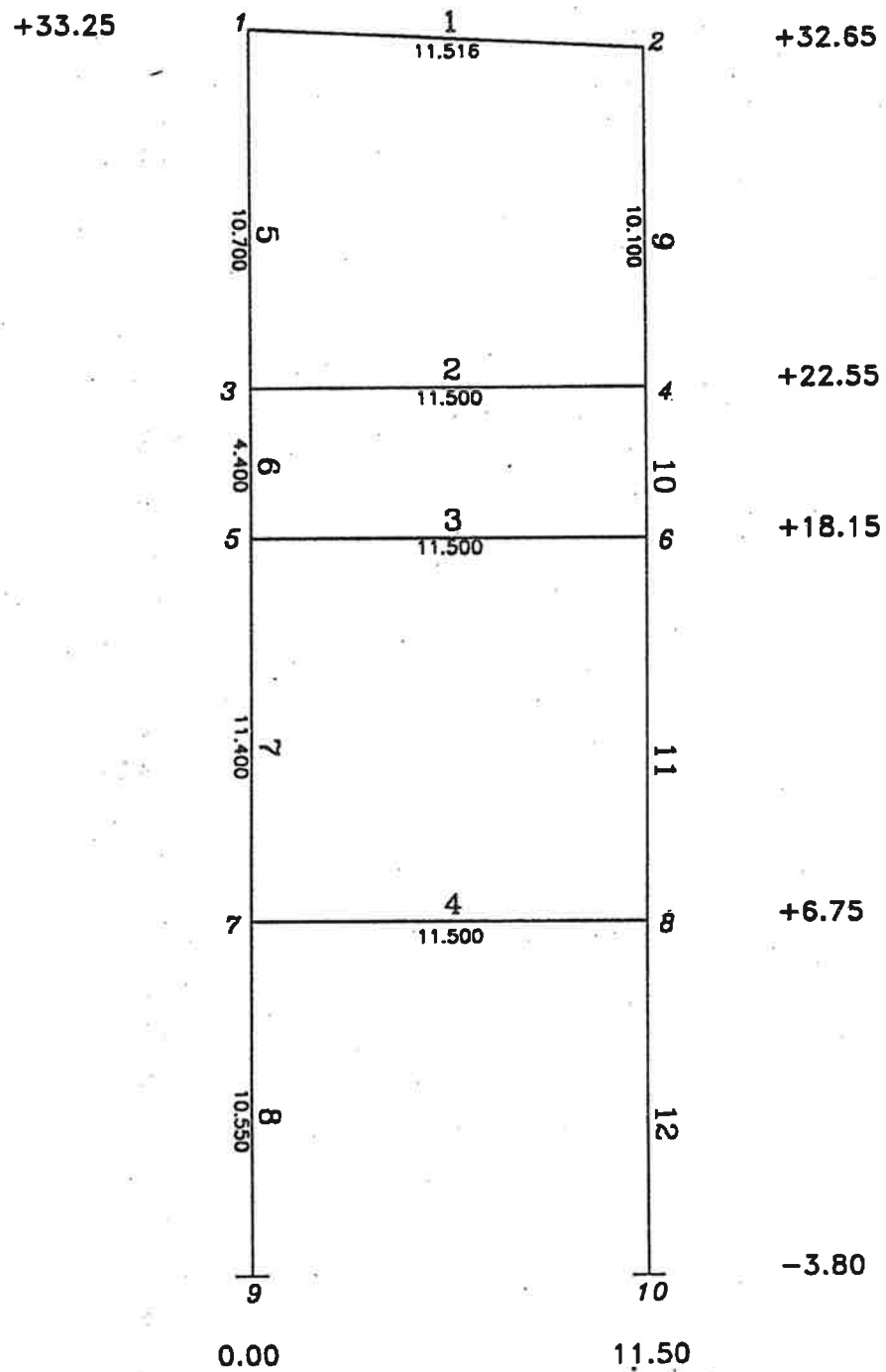
1	0.0000	1.4999
2	0.1681	1.1264
3	1.5146	-4.2459
4	1.0001	-0.8050
5	0.0000	-9.3966
6	-1.0001	-0.8050
7	-1.5146	-4.2459
8	-0.1681	1.1264

1	-0.1558	-1.9496
2	-1.0668	-3.1041
3	-0.0636	-2.2572
4	-1.1587	-2.8006

POSOUZENÍ VNITŘNÍHO RÁMU CD

ROVINNÝ MODEL

STATICKE SCHEMA



KOMORANY - RAM CD

ĚKLAUNI VSTUPNĚ DATA

-162-

KOMORANY - VNITRNĚ RAM CD

TYP KONSTRUKCE	2= rovinny ram
POCET UZLU	10
POCET PRUTU	12
POCET PODPOR	2

POPIS SOURADNIC UZLU

CISLO PODP.	SOURADNICE	SOURADNICE
UZLU	UZEL	Y [m]
1	0	0.
2	0	11.5
3	0	0.
4	0	11.5
5	0	0.
6	0	11.5
7	0	0.
8	0	11.5
9	1	0.
10	1	11.5

POPIS KODOVYCH CISEL PRUTU

CISLO PRUTU	CISLO POCAT. UZLU	CISLO KONC. UZLU
1	1	2
2	3	4
3	5	6
4	7	8
5	1	3
6	3	5
7	5	7
8	7	9
9	2	4
10	4	6
11	6	8
12	8	10

POPIS FYZIKALNICH VELICIN PRUTU

CISLO PRUTU	MODUL PRUZ.	MODUL PRUZ.
V SERII	PRUZNOSTI	VE SMYKU
PRVNI POSL.	E [MPa]	G [MPa]
1 12	27000.	11250.

POPIS PRUREZOVYCH VELICIN PRUTU [m²]

CISLO PRUTU	PRUREZOVA	SMYKOVA	MOMENT
V SERII	PLOCHA	PLOCHA	SETRVACNOSTI
PRVNI POSL.	A(1,n)	A(2,n)	A(3,n)
1	0	1.01	.65
2	0	1.88	1.52
3	0	1.4	1.04
4	0	1.88	1.52
5	0	1.05	.875
6	8	1.8	1.5
9	0	.84	.7
10	0	1.5	1.25
11	12	1.8	1.5

PŘEHLED ZATĚŽOVACÍCH STAVŮ

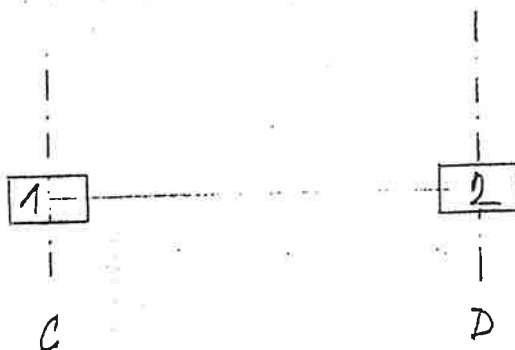
ŽS.		σ_t	ČÍSLO (PROGRAM)	PRO VÝPOČET KONVERZÍ DEFOR-CUPER)
1	STÁLE	1,1 / 0,9	0	
2	TECHNOLOGIE	1,3 / 0,0	1	
3	JEDÁBY	1,4 / 0,0	2	
4			2	
5			2	
6			2	
7	SNÍH, VĚTR	1,3 / 0,0	3	
8			3	
9	BH	1,0 / 0,0	4	
10			4	
11			4	
12			4	

➤ ZATÍŽENÍ Ž.S. 1-8 BILA PŘEVZATA Z VÝPOČV K1

➤ ZATÍŽENÍ OD BH BILA PŘEVZATA NOVĚ DLE PODKLADŮ
OD ENERGETIKY KANOWICE

ZATÍŽENÍ OD BAGHOUSE (DLE PODKLADU OD EP KATOWICE)

PRÁKCE	ZATÍŽENÍ VETŘENÍ	UZEŁ 1	2	1	2
PONTEx → Rx EP → Rx KATOWICE (PODKLAD) UTOWICE (KATOW)	Y+	-172,6	0	-23,43	0
	Y-	-32,5	0	-163,5	0
	X+	-100,6	0	-95,4	0
	X-	94,9	0	101,1	0
Rz Ry (PODKLAD)	Y+	-254,9	-192,0	47,1	113,8
	Y-	-64,1	-123,7	237,9	182,1
	X+	-155,8	-155,6	146,2	150,2
	X-	-148,1	-143,8	136,8	137,3
Ry Rz (SUSCH)	Y+	590,6	637,4	805,7	861,1
	Y-	797,2	852,6	599,0	645,9
	X+	695,6	746,8	700,6	751,8
	X-	746,3	695,2	752,2	701,1



ZATÍŽENÍ PRO PROGRAM DEFOR

POPIS ZATEZOVACICH STAVU - ZS 1

NAZEV :

VLASTNI TIHA KONSTRUKCE

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY ZATIZENI POCATECNI KONCOVA POLOHA POLOHA
V SERII INTENZITA INTENZITA ZACATKU KONCE

PRVNI POSL. T1 T2 SM T3 T4 T5

1	0	0	0	2	1	0	1	-15.3	
1	0	0	0	2	0	0	1	-121.	.925
1	0	0	0	2	0	0	1	-142.9	5.4
1	0	0	0	2	0	0	1	-162.	7.075
2	0	0	0	2	1	0	1	-35.2	
2	0	0	0	2	0	0	1	-372.4	.4
2	0	0	0	2	0	0	1	-416.6	5.2
2	0	0	0	2	0	0	1	-236.2	7.6
2	0	0	0	2	0	0	1	-232.2	10.
3	0	0	0	2	1	0	1	-22.9	
3	0	0	0	2	0	0	1	-110.	.3
3	0	0	0	2	0	0	1	-174.2	2.5
3	0	0	0	2	0	0	1	-184.6	5.5
3	0	0	0	2	0	0	1	-192.2	8.5
4	0	0	0	2	1	0	1	-32.1	
4	0	0	0	2	0	0	1	-303.4	5.75
5	0	0	0	2	1	0	1	-26.25	
5	0	0	1	3	0	0	1	219.6	1.1
5	0	0	0	2	0	0	1	-244.	1.1
6	8	0	0	2	1	0	1	-45.	
7	0	0	1	3	0	0	1	-267.12	4.25
7	0	0	0	2	0	0	1	-190.8	4.25
9	0	0	0	2	1	0	1	-21.	
9	0	0	1	3	0	0	1	-53.48	5.4
9	0	0	0	2	0	0	1	-133.7	5.4
9	0	0	1	3	0	0	1	-250.	8.65
9	0	0	0	2	0	0	1	-250.	8.65
10	0	0	0	2	1	0	1	-37.5	
11	0	0	0	2	1	0	1	-45.	
11	0	0	1	3	0	0	1	-525.42	1.9
11	0	0	0	2	0	0	1	-375.3	1.9
11	0	0	1	3	0	0	1	267.12	4.25
11	0	0	0	2	0	0	1	-190.8	4.25
12	0	0	0	2	1	0	1	-45.	

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST
V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

1	0	0	1	3	20.84
1	0	0	0	2	-104.2
2	0	0	0	2	-324.
4	0	0	1	3	-127.4
4	0	0	0	2	-278.
5	0	0	1	3	-8.17
5	0	0	0	2	-81.7
6	0	0	0	2	-174.4
6	0	0	1	3	-17.3
7	0	0	1	3	235.2
7	0	0	0	2	-834.
8	0	0	1	3	-389.56
8	0	0	0	2	-762.8

POPIS ZATEZOVACICH STAVU - ZS 2

NAZEV :

ZATIZENI TECHNOLOGII

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY ZATIZENI POCATECNI KONCOVA POLOHA POLOHA
V SERII INTENZITA INTENZITA ZACATKU KONCE

PRVNI POSL. T1 T2 SM T3 T4 T5

2	0	0	0	2	0	0	1	-86.4	.45
2	0	0	0	2	0	0	1	-172.8	2.8
2	0	0	0	2	0	0	1	-172.8	5.2
2	0	0	0	2	0	0	1	-576.4	7.6
2	0	0	0	2	0	0	1	-576.4	10.
3	0	0	0	2	0	0	1	-112.5	.3
3	0	0	0	2	0	0	1	-234.	2.5
3	0	0	0	2	0	0	1	-270.	5.5
3	0	0	0	2	0	0	1	-270.	8.5
4	0	0	0	2	0	0	1	-45.	5.75
4	0	0	0	2	1	0	1	-41.4	

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST
V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

4	0	0	0	2	-86.4
4	0	0	1	3	-47.52
6	0	0	0	2	-153.
7	0	0	0	2	-281.
7	0	0	1	3	112.4
8	0	0	0	2	-281.
8	0	0	1	3	-112.4

POPIS ZATEZOVACICH STAVU - ZS 3

NAZEV :

JERABY - ZS I, BOCNI SILY DOLEVA

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY ZATIZENI POCATECNI KONCOVA POLOHA POLOHA
V SERII INTENZITA INTENZITA ZACATKU KONCE

PRVNI POSL. T1 T2 SM T3 T4 T5

7	0	0	0	2	0	0	1	-129.	4.25
7	0	0	1	3	0	0	1	-193.5	4.25
7	0	0	0	1	0	0	1	-16.	4.25
11	0	0	0	2	0	0	1	-48.	4.25
11	0	0	1	3	0	0	1	72.	4.25
11	0	0	0	2	0	0	1	-793.	1.9
11	0	0	1	3	0	0	1	-1348.	1.9
11	0	0	0	1	0	0	1	-120.	1.9

POPIS ZATEZOVACICH STAVU - ZS 4

NAZEV :

JERABY - ZS I, BOCNI SILY DOPRAVA

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII	TYPY	ZATIZENI	POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE			
PRVNI POSL.	T1	T2	SM	T3	T4	T5			
7	0	0	0	2	0	0	1	-129.	4.25
7	0	0	1	3	0	0	1	-193.5	4.25
7	0	0	0	1	0	0	1	16.	4.25
11	0	0	0	2	0	0	1	-48.	4.25
11	0	0	1	3	0	0	1	72.	4.25
11	0	0	0	2	0	0	1	-793.	1.9
11	0	0	1	3	0	0	1	-1348.	1.9
11	0	0	0	1	0	0	1	120.	1.9

POPIS ZATEZOVACICH STAVU - ZS 5

NAZEV :

JERABY - ZS II, BOCNI SILY DOLEVA

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII		TYPY ZATIZENI						POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE
PRVNI	POS.	T1	T2	SM	T3	T4	T5				
11		0	0	0	2	0	0	1	-129.	4.25	
11		0	0	1	3	0	0	1	193.5	4.25	
11		0	0	0	1	0	0	1	-16.	4.25	
7		0	0	0	2	0	0	1	-48.	4.25	
7		0	0	1	3	0	0	1	-72.	4.25	
11		0	0	0	2	0	0	1	-793.	1.9	
11		0	0	1	3	0	0	1	-1348.	1.9	
11		0	0	0	1	0	0	1	-120.	1.9	

POPIS ZATEZOVACICH STAVU - ZS 6

NAZEV :

JERABY - ZS II, BOCNI SILY DOPRAVA

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY		ZATIZENI						POCATECNI	KONCOVA	POLOHA	POLOHA
V SERII								INTENZITA	INTENZITA	ZACATKU	KONCE
PRVNI	POS.	T1	T2	SM	T3	T4	T5				
11		0	0	0	2	0	0	1	-129.	4.25	
11		0	0	1	3	0	0	1	193.5	4.25	
11		0	0	0	1	0	0	1	16.	4.25	
7		0	0	0	2	0	0	1	-48.	4.25	
7		0	0	1	3	0	0	1	-72.	4.25	
11		0	0	0	2	0	0	1	-793.	1.9	
11		0	0	1	3	0	0	1	-1348.	1.9	
11		0	0	0	1	0	0	1	120.	1.9	

POPIS ZATEZOVACICH STAVU - ZS 7

NAZEV :

SNIH, VITR -

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU	TYPY	ZATIZENI	POCATECNI	KONCOVA	POLOHA	POLOHA			
V SERII			INTENZITA	INTENZITA	ZACATKU	KONCE			
PRVNI POSL.	T1	T2	SM	T3	T4	T5			
9	0	0	0	2	0	0	1	-90.	8.65
9	0	0	1	3	0	0	1	-90.	8.65
5	0	0	0	2	0	0	1	-90.	1.1
5	0	0	1	3	0	0	1	81.	1.1
9	0	0	0	1	1	1	1	-4.5	0.

POPIS ZATEZOVACICH STAVU - ZS 8

NAZEV :

SNIH, VITR +

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY ZATIZENI								POCATECNI	KONCOVA	POLOHA	POLOHA
V SERII								INTENZITA	INTENZITA	ZACATKU	KONCE
PRVNI	POSL.	T1	T2	SM	T3	T4	T5				
9	0	0	0	2	0	0	1	-90.		8.65	
9	0	0	1	3	0	0	1	-90.		8.65	
5	0	0	0	2	0	0	1	-90.		1.1	
5	0	0	1	3	0	0	1	81.		1.1	
9	0	0	0	1	1	1	1	3.355		0.	

POPIS ZATEZOVACICH STAVU - ZS 9

NAZEV :

Y+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU	TYPY	ZATIZ.	VELIKOST
V SERII			ZATIZENI
PRVNI POSL.	T1	T2	SMER
1	0	0	0 1 172.6
1	0	0	0 2 -590.6
2	0	0	0 2 -637.4

POPIS ZATEZOVACICH STAVU - ZS 10

NAZEV :

Y-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU	TYPY	ZATIZ.	VELIKOST
V SERII			ZATIZENI
PRVNI POSL.	T1	T2	SMER
1	0	0	0 1
			32.5
1	0	0	0 2
			-797.2
2	0	0	0 2
			-852.6

POPIS ZATEZOVACICH STAVU - ZS 11

NAZEV :

X+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

1 0 0 0 1 100.6

1 0 0 0 2 -695.6

2 0 0 0 2 -746.8

POPIS ZATEZOVACICH STAVU - ZS 12

NAZEV :

X-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

1 0 0 0 1 -94.9

1 0 0 0 2 -746.3

2 0 0 0 2 -695.2

VÝPOČET EXTERNÍCH ÚČINKŮ

KOMORANY - VNITRNI RAM CD

SUPERPOSICE ZATEZOVACICH STAVU - POPIS KOMBINACI

NAZEV :

KOMB-k1

Cislo kombinace: 1

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9	10
SKUPINY :	0	1	2	2	2	2	3	3	4	4
KOEFICIENTY:	1.1	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.	1.
ZAT. STAVY	11	12								
SKUPINY :	4	4								
KOEFICIENTY:	1.	1.								

NAZEV :

KOMB-2

Cislo kombinace: 2

POPIS SUPERPOSICI ZATEZOVACICH STAVU

ZAT. STAVY	1	2	3	4	5	6	7	8	9	10
SKUPINY :	0	1	2	2	2	2	3	3	4	4
KOEFICIENTY:	0.9	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.	1.
ZAT. STAVY	11	12								
SKUPINY :	4	4								
KOEFICIENTY:	1.	1.								

1 - VLASTNI TIHA KONSTRUKCE

2 - ZATIZENI TECHNOLOGII

3 - JERABY - ZS I, BOCNI SILY DOLEVA

4 - JERABY - ZS I, BOCNI SILY DOPRAVA

5 - JERABY - ZS II, BOCNI SILY DOLEVA

6 - JERABY - ZS II, BOCNI SILY DOPRAVA

7 - SNIH, VITR -

8 - SNIH, VITR +

9 - Y+

10 - Y-

11 - X+

12 - X-

VYHODNOCENÍ VNITŘNÍCH SIL

PONTEX s.r.o., PRAHA, Bezova 1658

str.

DEFOR plus V93 (c) FEM consulting Brno 15/10 1993

list

3. kveten 1994 (11:39)

KOMORANY - RAM CD

KOMB-KOMB1

SUPER-VYHODNOCENI (STALE 1.1)

Seznam vyhodnocovanych prutu:

5 -5

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace			
PRUT	5	min N-x						
x=	10.70	-1994.71	-113.34	-647.90	1	7	12	
PRUT	5			max M-z				
x=	.00	-1298.27	-138.83	952.83	1	2	7	12
PRUT	5			min M-z				
x=	10.70	-1989.76	-141.82	-924.21	1	2	4	7 12

KOMB-KOMB2

SUPER-VYHODNOCENI (STALE 0.9)

Seznam vyhodnocovanych prutu:

5 -5

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace			
PRUT	5	max N-x						
x=	.00	-403.27	-55.80	481.92	1	2	4	8
PRUT	5	min N-x						
x=	10.70	-1798.95	-103.05	-597.47	1	7	12	
PRUT	5			max M-z				
x=	.00	-1207.49	-128.54	849.21	1	2	7	12
PRUT	5			min M-z				
x=	10.70	-1794.01	-131.53	-873.79	1	2	4	7 12

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DEFOR plus V93 (c) FEM consulting Brno 15/10 1993
 9. kveten 1994 (10:58)
 KOMORANY - RAM CD

list 1

KOMB-KOMB1

SUPER-VYHODNOCENI (STALE 1.1)

Seznam vyhodnocovanych prutu:
 6 -8

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace			
PRUT	8	min N-x						
x=	10.55	-8994.74	-220.70	-1187.73	1	2	3	7 12
PRUT	6			max M-z				
x=	.00	-3796.36	-813.05	2241.36	1	2	7	12
PRUT	6			min M-z				
x=	4.40	-3947.81	-758.53	-1565.34	1	2	4	7 12

KOMB-KOMB2

SUPER-VYHODNOCENI (STALE 0.9)

Seznam vyhodnocovanych prutu:
 6 -8

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace			
PRUT	6	max N-x						
x=	.00	-1594.13	-193.98	170.91	1	4		
PRUT	8	min N-x						
x=	10.55	-8005.53	-216.86	-1182.15	1	2	3	7 12
PRUT	6			max M-z				
x=	.00	-3427.36	-757.83	2099.12	1	2	7	12
PRUT	6			min M-z				
x=	4.40	-3539.22	-703.30	-1464.60	1	2	4	7 12

str. 171

list

SUPER-VYHODNOCENI (STALE 1.1)

9 -9

		$m_{-1} \times N-x$	Q-Y	M-z	Kombinace				
PRUT	9	$\min N-x$	61,60	-350,79	1	7			
X=	10.10	-2278.02	115.67	932.96	1	2	4	8	10

PRUT	9					
x=	.00	-1351.55	144.47	min M-z	-852.50	1 2 4 8 9

SUPER-VYHODNOCENI (STALE 0.9)

9 -9

		N-x	Q-y	M-z	Kombinace
PRUT	9	max N-x			
x=	.00	-505.46	51.31	-276.07	1 7

PRUT	9								
x= 10.10	-1889.49	169.07	max M-z	1179.82	1	2	4	8	9

PRUT	9					
x=	.00	-1236.27	134.18	min M-z	-778.38	1 2 4 8 9

3. kveten 1994 (11:41)
KOMORANY - RAM CD

KOMB-KOMB1

SUPER-VYHODNOCENI (STALE 1.1) 175

Seznam vyhodnocovanych prutu:
10 -10

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace				
PRUT	10	min N-x							
x=	4.40	-5187.38	721.88	692.10	1	2	4	8	10
PRUT	10			max M-z					
x=	4.40	-5080.85	852.90	1286.07	1	2	8	9	
PRUT	10			min M-z					
x=	.00	-4965.69	798.38	-2760.44	1	2	4	8	9

KOMB-KOMB2

SUPER-VYHODNOCENI (STALE 0.9)

Seznam vyhodnocovanych prutu:
10 -10

VNITRNI SILY V PRUTECH (kN, kNm)

		N-x	Q-y	M-z	Kombinace				
PRUT	10	max N-x							
x=	.00	-2021.58	248.50	-699.53	1				
PRUT	10	min N-x							
x=	4.40	-4705.14	666.65	604.57	1	2	4	8	10
PRUT	10			max M-z					
x=	4.40	-4598.61	797.68	1198.54	1	2	8	9	
PRUT	10			min M-z					
x=	.00	-4516.45	743.16	-2604.99	1	2	4	8	9

DEFOR plus V93 (c) FEM consulting Brno 15/10 1993
 9. kveten 1994 (11:00)
 KOMORANY - RAM CD

list

KOMB-KOMB1

SUPER-VYHODNOCENI (STALE 1.1)

Seznam vyhodnocovanych prutu:

11 -12

VNITRNI SILY V PRUTECH (kN, kNm)

	N-x	Q-y	M-z	Kombinace				
PRUT 12 min N-x								
x= 10.55	-12010.92	249.12	1655.54	1	2	6	8	9
PRUT 11 max M-z								
x= 11.40	-9083.36	270.81	2086.79	1	2	4	8	9
PRUT 11 min M-z								
x= .00	-6718.95	102.81	-2751.73	1	2	4	8	9

KOMB-KOMB2

SUPER-VYHODNOCENI (STALE 0.9)

Seznam vyhodnocovanych prutu:

11 -12

VNITRNI SILY V PRUTECH (kN, kNm)

	N-x	Q-y	M-z	Kombinace				
PRUT 11 max N-x								
x= .00	-2711.56	51.22	-499.46	1				
PRUT 12 min N-x								
x= 10.55	-10872.87	245.28	1634.81	1	2	6	8	9
PRUT 11 max M-z								
x= 11.40	-8264.97	259.42	2016.37	1	2	4	8	9
PRUT 11 min M-z								
x= .00	-6116.38	91.42	-2640.74	1	2	4	8	9

VSTUPNÍ DATA PRO VÝPOČET INTERAKČNÍCH DIAGRAMŮ

KONTROLA VSTUPNÍCH DAT :

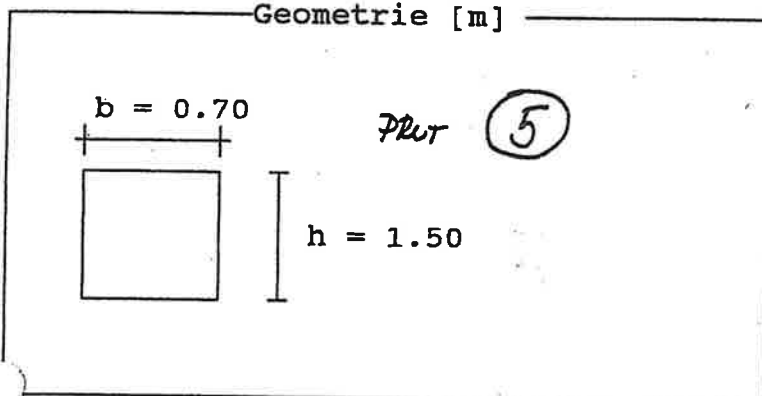
► POKRACUJ

O P R A V A

Zatizeni						Materialy
M [kNm]	481.92	-647.90	952.83	-924.21	0.00	Beton B 20
N [kN]	-403.27	-1994.71	-1298.27	-1989.76	0.00	Ocel 10 372 B
M [kNm]	0.00	0.00	0.00	0.00		
N [kN]	0.00	0.00	0.00	0.00		

Geometrie [m]

Vyztuzeni



Vyztuz	he[i] (m)
6φ 16	0.050
2φ 16	0.250
2φ 16	0.450
2φ 16	0.650
2φ 16	0.850
2φ 16	1.050
2φ 16	1.250
6φ 16	1.450

Soucinitele gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.987

Stupne vyztuzeni

Misc min = 0.0006

Mist min = 0.0016

Misc max = 0.0300

Mist max = 0.0300

→:Posuv —:Vyber ESC:Skonci

KONTROLA VSTUPNÍCH DAT :

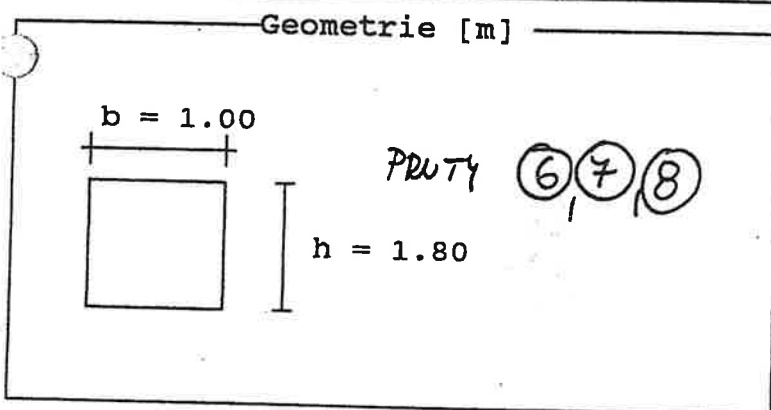
► POKRACUJ

O P R A V A

Zatizeni						Materialy
M [kNm]	170.91	-1187.73	2241.36	-1565.34	0.00	Beton B 20
N [kN]	-1594.13	-8994.74	-3796.36	-3947.81	0.00	Ocel 10 372 B
M [kNm]	0.00	0.00	0.00	0.00		
N [kN]	0.00	0.00	0.00	0.00		

Geometrie [m]

Vyztuzeni



Vyztuz	he[i] (m)
8φ 16	0.050
2φ 16	0.250
2φ 16	0.450
3φ 16	0.750
3φ 16	1.050
2φ 16	1.350
2φ 16	1.550
8φ 16	1.750

Soucinitele gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.989

Stupne vyztuzeni

vypocet dle CSN

→:Posuv —:Vyber ESC:Skonci

KONTROLA VSTUPNICH DAT : ► POKRAČUJ

OPRAVA

Zatizeni

Materialy

M [kNm]	-276.07	932.96	1270.35	-852.50	0.00
N [kN]	-505.46	-2278.02	-2123.93	-1351.55	0.00
M [kNm]	0.00	0.00	0.00	0.00	
N [kN]	0.00	0.00	0.00	0.00	

Beton B 20
Ocel 10 372 B

Geometrie [m]

b = 0.70



h = 1.20

Přev (9)

6φ18

Vyztužení

Vyztuz he[i] (m)

6φ 18	0.050
2φ 18	0.250
2φ 18	0.450
2φ 18	0.750
2φ 18	0.950
6φ 18	1.150

Souciniteles gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.984

Stupne vyztužení

Misc min = 0.0006 Mist min = 0.0016
Misc max = 0.0300 Mist max = 0.0300

→:Posuv ┘:Vyber ESC:Skonci

KONTROLA VSTUPNICH DAT : ► POKRAČUJ

OPRAVA

Zatizeni

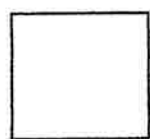
Materialy

M [kNm]	-276.07	932.96	1270.35	-852.50	0.00
N [kN]	-505.46	-2278.02	-2123.93	-1351.55	0.00
M [kNm]	0.00	0.00	0.00	0.00	
N [kN]	0.00	0.00	0.00	0.00	

Beton B 20
Ocel 10 372 B

Geometrie [m]

b = 0.70



h = 1.20

Přev (9)

8φ18

Vyztužení

Vyztuz he[i] (m)

8φ 18	0.050
2φ 18	0.250
2φ 18	0.450
2φ 18	0.750
2φ 18	0.950
8φ 18	1.150

Souciniteles gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.984

Stupne vyztužení

Misc min = 0.0006 Mist min = 0.0016
Misc max = 0.0300 Mist max = 0.0300

→:Posuv ┘:Vyber ESC:Skonci

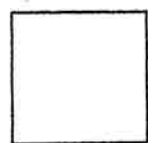
KONTROLA VSTUPNICH DAT : ► P O K R A C U J

O P R A V A

Zatizeni						Materialy
M [kNm]	-699.53	692.10	1286.07	-2760.44	0.00	Beton B 20
N [kN]	-2021.58	-5187.38	-5080.85	-4965.69	0.00	Ocel 10 372 B
M [kNm]	0.00	0.00	0.00	0.00		
N [kN]	0.00	0.00	0.00	0.00		

Geometrie [m]

b = 1.00



h = 1.50

Přev

(10)

Vyztužení

Vyztuz he[i] (m)

6φ 16	0.050
2φ 16	0.250
2φ 16	0.450
2φ 16	0.650
2φ 16	0.850
2φ 16	1.050
2φ 16	1.250
6φ 16	1.450

Soucinitele gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.987

Stupne vyztužení

Misc min = 0.0006 Mist min = 0.0016

Misc max = 0.0300 Mist max = 0.0300

→:Posuv ┘:Vyber ESC:Skonci

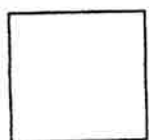
KONTROLA VSTUPNICH DAT : ► P O K R A C U J

O P R A V A

Zatizeni						Materialy
M [kNm]	-499.46	1655.54	2086.79	-2751.73	0.00	Beton B 20
N [kN]	-2711.56	-12010.90	-9083.36	-6718.95	0.00	Ocel 10 372 B
M [kNm]	0.00	0.00	0.00	0.00		
N [kN]	0.00	0.00	0.00	0.00		

Geometrie [m]

b = 1.00



h = 1.80

Přev

(11)

(12)

Vyztužení

Vyztuz he[i] (m)

9φ 16	0.050
2φ 16	0.250
2φ 16	0.450
3φ 16	0.750
3φ 16	1.050
2φ 16	1.350
2φ 16	1.550
9φ 16	1.750

Soucinitele gama

GamaB = 1.000

GamaS = 1.000

GamaU = 0.989

Stupne vyztužení

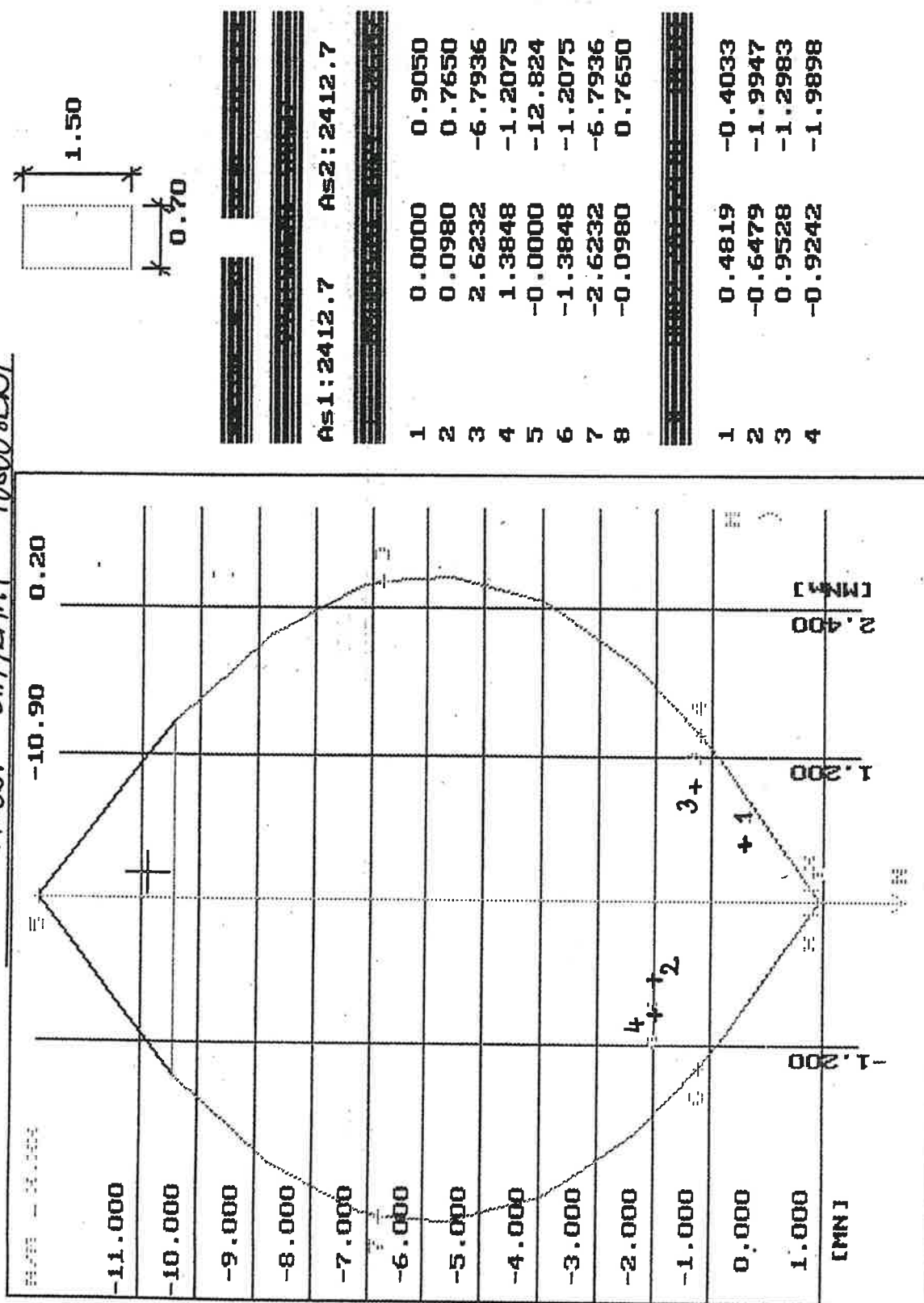
Misc min = 0.0006 Mist min = 0.0016

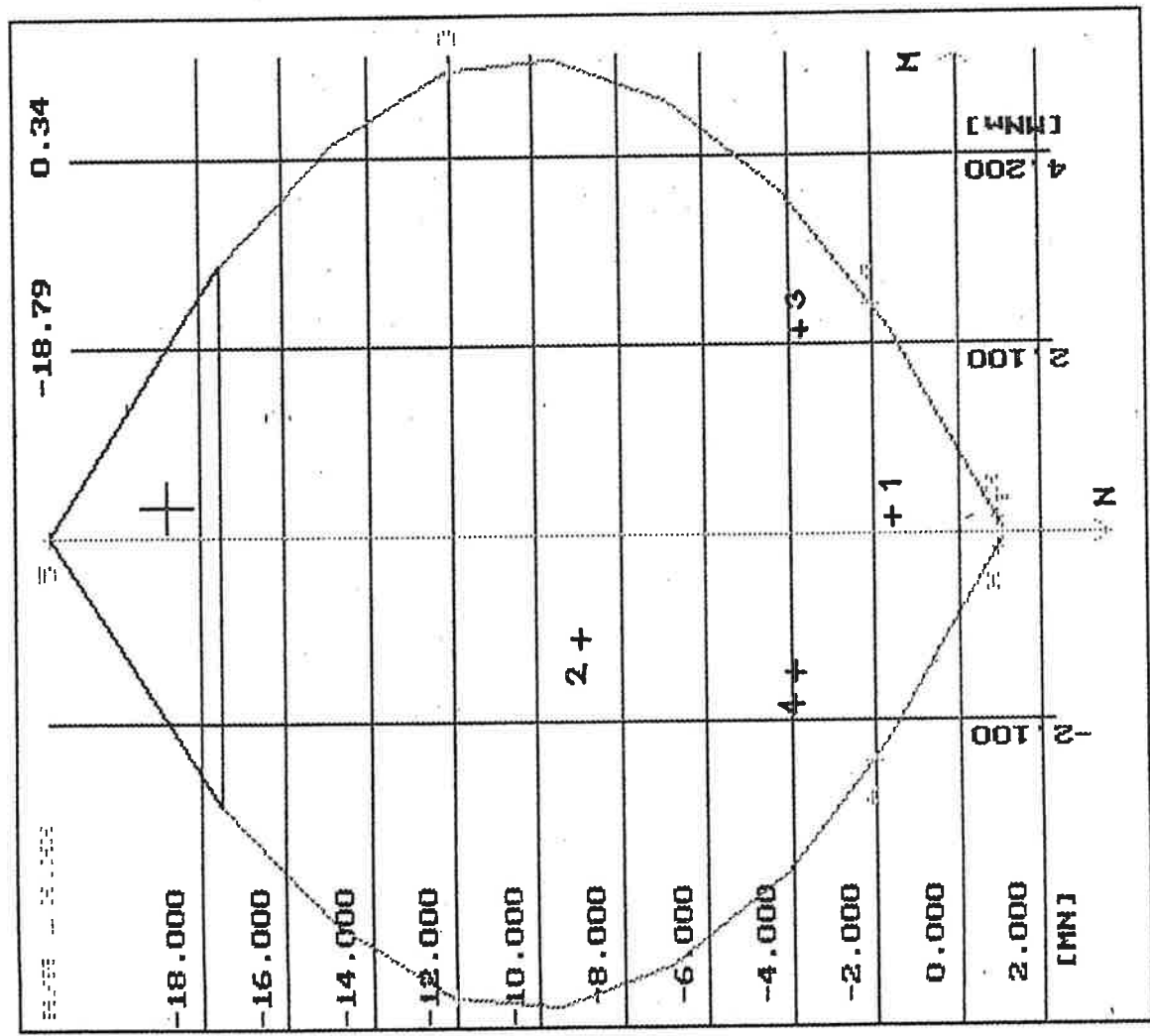
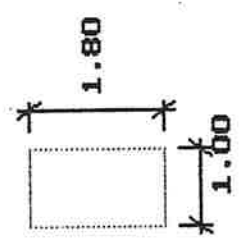
Misc max = 0.0300 Mist max = 0.0300

→:Posuv ┘:Vyber ESC:Skonci

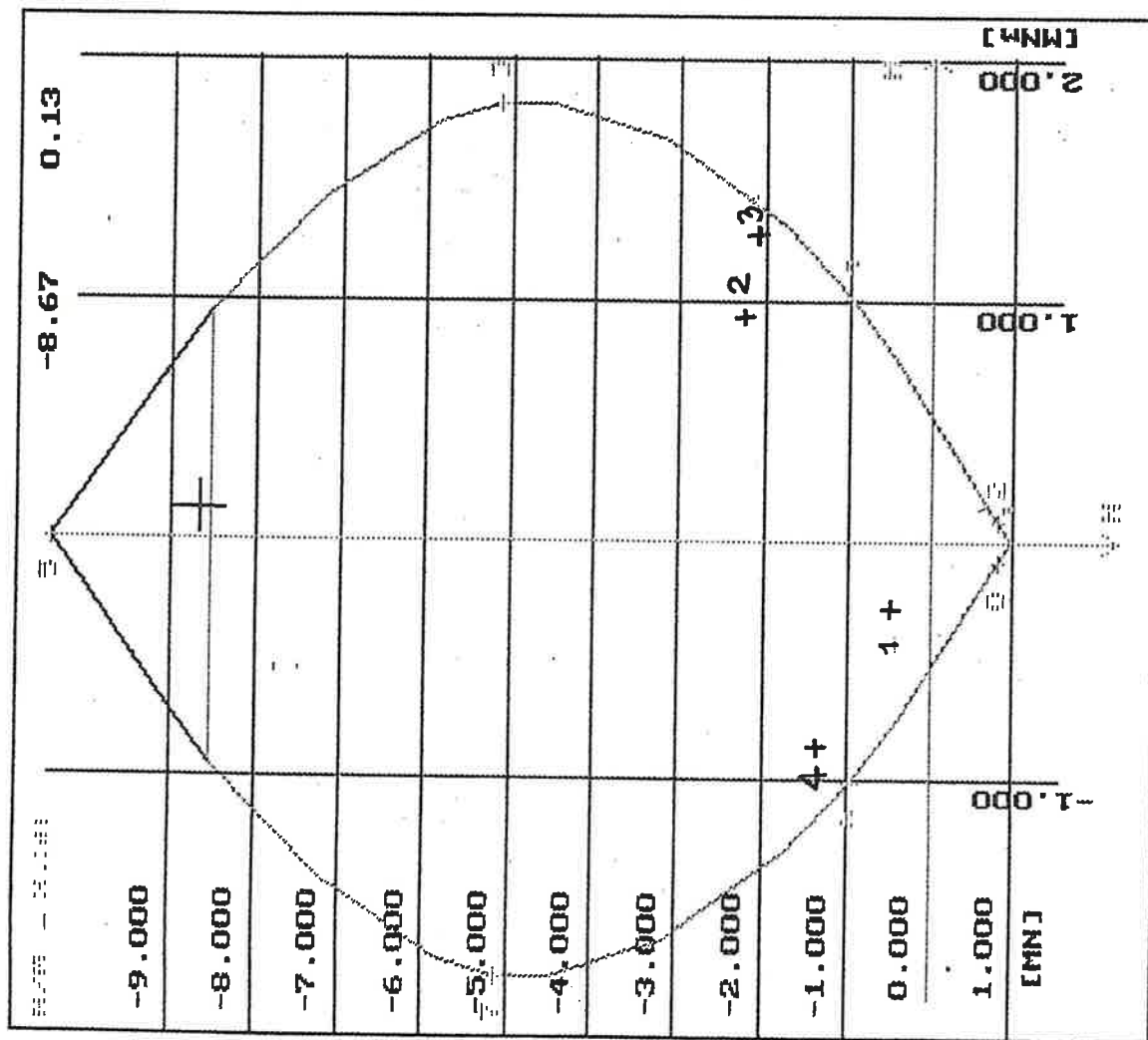
C4 - P5

INTERACTIVE DIAGRAM - PROUBLE





As1:3015.9		As2:3015.9	
1	0.0000	1.1337	0.1709
2	0.1758	0.9268	-1.1877
3	5.1521	-12.011	2.2414
4	2.5523	-2.0700	-1.5653
5	-0.0000	-21.609	
6	-2.5523	-2.0700	
7	-5.1521	-12.011	
8	-0.1758	0.9268	
1	0.1709	-1.5941	
2	-1.1877	-8.9947	
3	2.2414	-3.7964	
4	-1.5653	-3.9478	

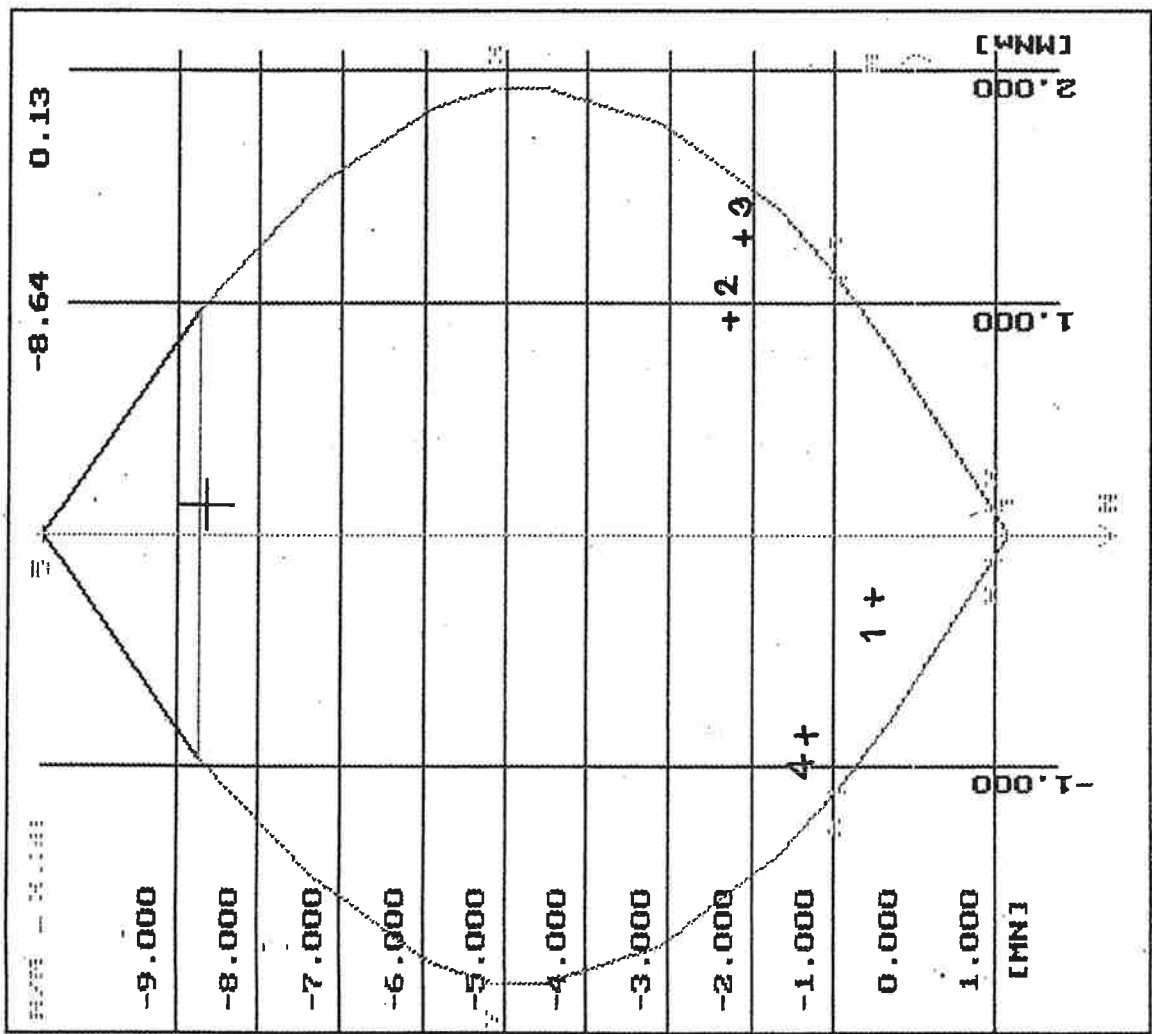
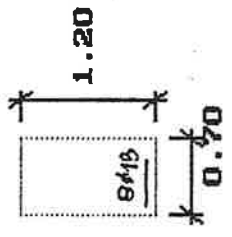


As1:2544.7 As2:2544.7

1	0.0000	0.9515
2	0.0816	0.8032
3	1.8130	-5.1283
4	1.0048	-0.9660
5	-0.0000	-10.456
6	-1.0048	-0.9660
7	-1.8130	-5.1283
8	-0.0816	0.8032

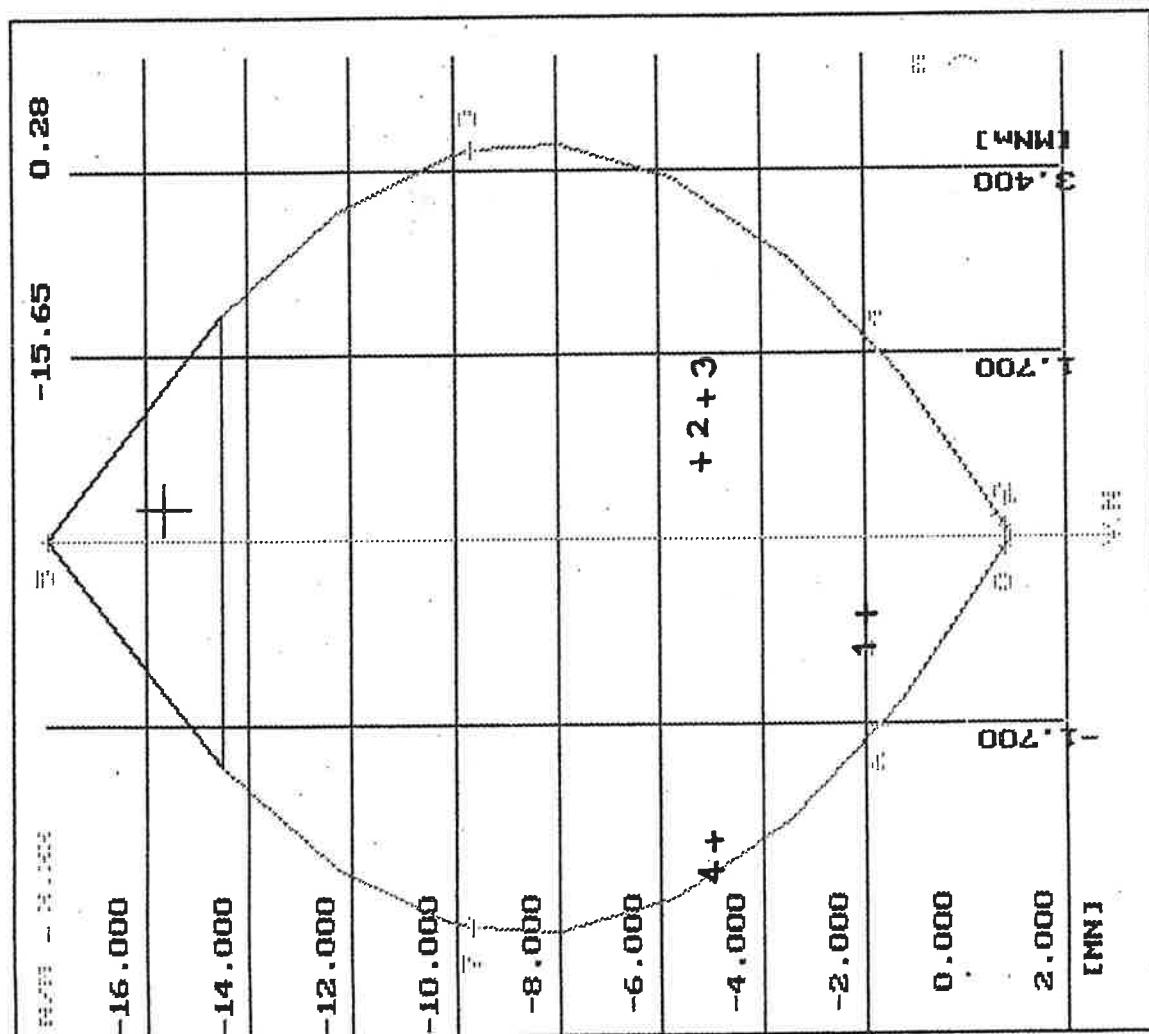
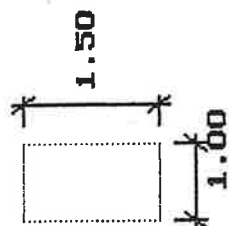
1	-0.2761	-0.5055
2	0.9330	-2.2780
3	1.2703	-2.1239
4	-0.8525	-1.3516

D4 - pg



As1:3053.6 As2:3053.6	
1	0.0000 1.1418
2	0.1087 0.9441
3	1.9176 -5.1283
4	1.1094 -0.9660
5	-0.0000 -10.647
6	-1.1094 -0.9660
7	-1.9176 -5.1283
8	-0.1087 0.9441
1	-0.2761 -0.5055
2	0.9330 -2.2780
3	1.2703 -2.1239
4	-0.8525 -1.3516

DS-710



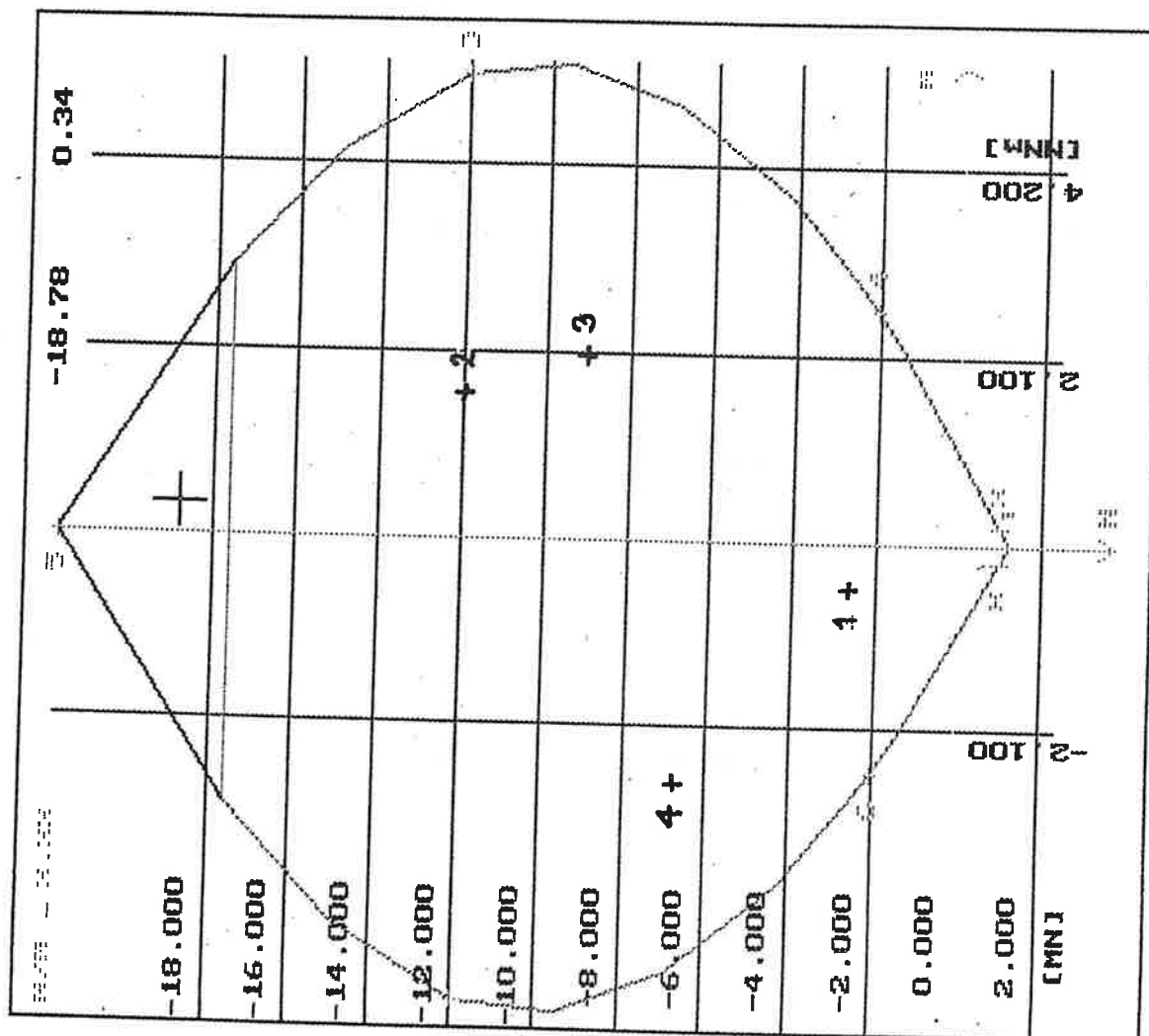
As1: 2412.7	As2: 2412.7
-------------	-------------

1	0.0000	0.9050
2	0.0980	0.7650
3	3.5638	-9.6530
4	1.7367	-1.7250
5	-0.0000	-17.932
6	-1.7367	-1.7250
7	-3.5638	-9.6530
8	-0.0980	0.7650

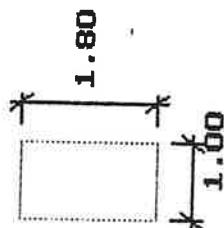
1	-0.6995	-2.0216
2	0.6921	-5.1874
3	1.2861	-5.0808
4	-2.7604	-4.9657

D3 - PM12

- 185 -



Page -> <- Page <- -> Esc KONEC F1 BW/COL. F2 BOD



As1:3217.0	As2:3217.0
------------	------------

1	0.0000	1.2092
2	0.1978	0.9765
3	5.2163	-12.011
4	2.6165	-2.0700
5	-0.0000	-21.685
6	-2.6165	-2.0700
7	-5.2163	-12.011
8	-0.1978	0.9765

1	-0.4995	-2.7116
2	1.6555	-12.010
3	2.0868	-9.0834
4	-2.7517	-6.7190

POSOUZENÍ KRAJNÍHO RÁMU CD

ROVINNÝ MODEL

STATICKÉ SCHEMA

34,050

31,69

26,925

22,225

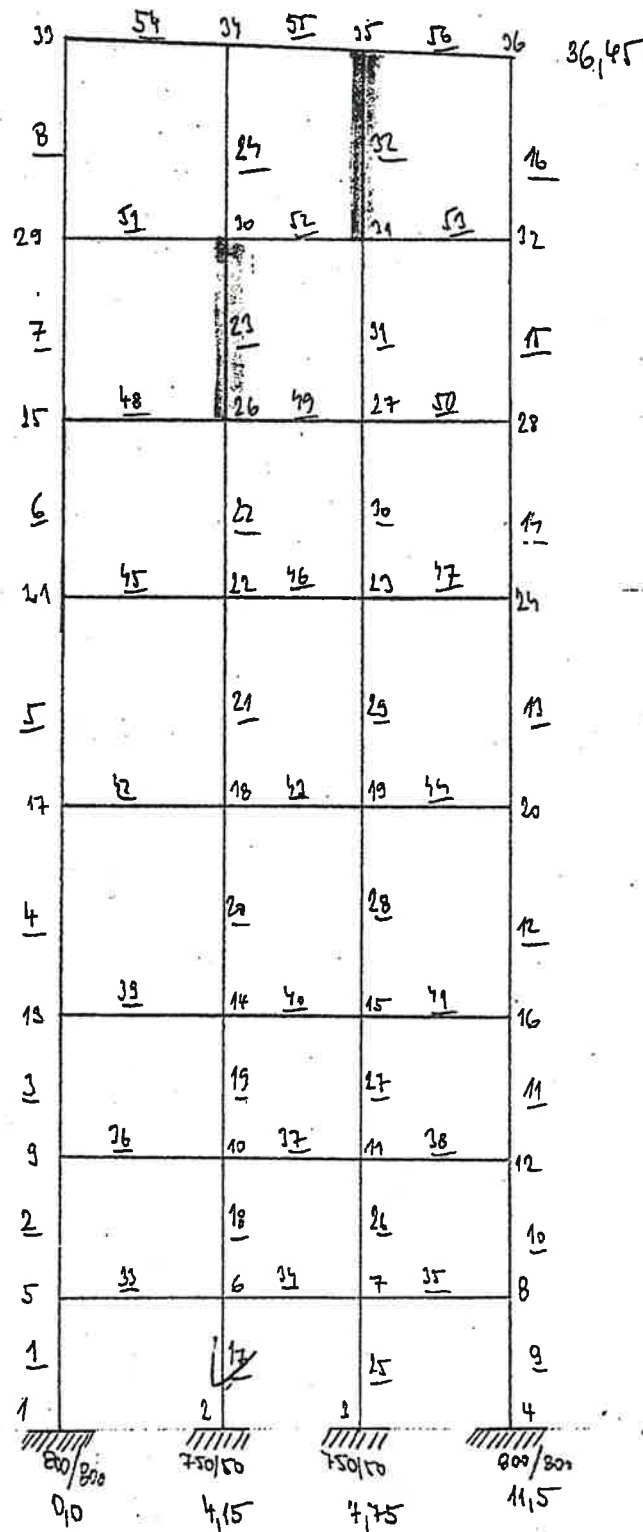
16,675

11,125

7,54

3,55

0,0



C

D

ŽÁKLADNÍ VSTUPNÍ DATA

RAM CD - KRAJNÍ

TYP KONSTRUKCE 2= rovinny ram
 POCET UZLU 36
 POCET PRUTU 56
 POCET PODPOR 4

POPIS SOURADNIC UZLU

CISLO	PODP.	SOURADNICE SOURADNICE	
UZLU	UZEL	X [m]	Y [m]
1	1	0.	0.
2	1	4.15	0.
3	1	7.75	0.
4	1	11.5	0.
5	0	0.	3.55
6	0	4.15	3.55
7	0	7.75	3.55
8	0	11.5	3.55
9	0	0.	7.34
10	0	4.15	7.34
11	0	7.75	7.34
12	0	11.5	7.34
13	0	0.	11.125
14	0	4.15	11.125
15	0	7.75	11.125
16	0	11.5	11.125
17	0	0.	16.675
18	0	4.15	16.675
19	0	7.75	16.675
20	0	11.5	16.675
21	0	0.	22.225
22	0	4.15	22.225
23	0	7.75	22.225
24	0	11.5	22.225
25	0	0.	26.925
26	0	4.15	26.925
27	0	7.75	26.925
28	0	11.5	26.925
29	0	0.	31.69
30	0	4.15	31.69
31	0	7.75	31.69
32	0	11.5	31.69
33	0	0.	37.05
34	0	4.15	36.8335
35	0	7.75	36.6457
36	0	11.5	36.45

POPIS KODOVYCH CISEL PRUTU		
CISLO PRUTU	CISLO POCAT. UZLU	CISLO KONC. UZLU
1	1	5
2	5	9
3	9	13
4	13	17
5	17	21
6	21	25
7	25	29
8	29	33
9	4	8
10	8	12
11	12	16
12	16	20
13	20	24
14	24	28
15	28	32
16	32	36
17	2	6
18	6	10
19	10	14
20	14	18
21	18	22
22	22	26
23	26	30
24	30	34
25	3	7
26	7	11
27	11	15
28	15	19
29	19	23
30	23	27
31	27	31
32	31	35
33	5	6
34	6	7
35	7	8
36	9	10
37	10	11
38	11	12
39	13	14
40	14	15
41	15	16
42	17	18
43	18	19
44	19	20
45	21	22
46	22	23
47	23	24
48	25	26
49	26	27
50	27	28
51	29	30
52	30	31
53	31	32
54	33	34
55	34	35
56	35	36

POPIS FYZIKALNICH VELICIN PRUTU

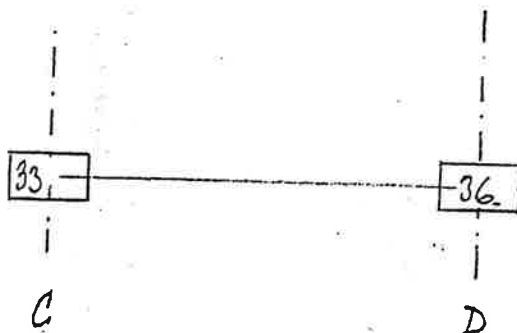
CISLO PRUTU	MODUL	MODUL PRUZ.
V SERII	PRUZNOSTI	VE SMYKU
PRVNI POSL.	E [MPa]	G [MPa]
1 56	27000.	0.

POPIS PRUREZOVYCH VELICIN PRUTU [m²]

CISLO PRUTU	PRUREZOVA	SMYKOVA	MOMENT
V SERII	PLOCHA	PLOCHA	SETRVACNOSTI
PRVNI POSL.	-----		
	A(1,n)	A(2,n)	A(3,n)
1 16	.64	.533	.0341
17 32	.375	.313	.0078
33 38	.36	.3	.0243
39 53	.1875	.156	.0088
54 56	0.72	.6	.0486

ZATÍŽENÍ OD BAGHOUSE
 (DLE PODKLADU OD EP KATOWICE)

PRÁKCE	ZATÍŽENÍ VETŘEN	UZEŤ. 33	36	33	36
PONTEx → R_X	Y+	-172,6	0	-23,43	0
	Y-	-32,5	0	-163,5	0
EP → R_X KATOWICE (POČET UZEŤ. 33 BAGW)	X+	-100,6	0	-95,4	0
	X-	94,9	0	101,1	0
R_Z R_y (POČET)	Y+	-254,9	-192,0	47,1	113,8
	Y-	-64,1	-123,7	237,9	182,1
	X+	-155,8	-155,6	146,2	150,2
	X-	-148,1	-143,8	136,8	137,3
R_y R_z (ENIGM)	Y+	590,6	637,4	805,7	861,1
	Y-	797,2	852,6	599,0	645,9
	X+	695,6	746,8	700,6	751,8
	X-	746,3	695,2	752,2	701,1



ZATÍŽENÍ

→ ZATÍŽENÍ (KROK 21) BYLA PŘEVZATA Z VÝPOČTU K1

→ ZATÍŽENÍ OD DACHOVCE BYLO PŘEVZATO KROK 21
 DLE
 POKYNU OD ENERGOINŽENÝRA DACHOVCE

- TOTO ZATÍŽENÍ JE NA NÁHLIVÝCH STRANÁCH

ZATÍŽENÍ PRO PROGRAM DEFOR

RAM CD - KRAJNI

POPIS ZATEZOVACICH STAVU - ZS 1

NAZEV :

STALE

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU TYPY		ZATIZENI		POCATECNI KONCOVA		POLOHA	
V SERII				INTENZITA INTENZITA		ZACATKU KONCE	
PRVNI	POS.	T1	T2	SM	T3	T4	T5
1	16	0	0	1	1	0	0
17	32	0	0	1	1	0	0
33	38	0	0	2	1	0	0
39	53	0	0	2	1	0	0
54	56	0	0	2	1	0	0
51	0	0	0	2	1	1	0
48	0	0	0	2	1	1	0
45	0	0	0	2	1	1	0
42	0	0	0	2	1	1	0
39	0	0	0	2	1	1	0
36	0	0	0	2	1	1	0
33	0	0	0	2	1	1	0
51	0	0	0	2	1	1	0
48	0	0	0	2	1	1	0
45	0	0	0	2	1	1	0
42	0	0	0	2	1	1	0
39	0	0	0	2	1	1	0
36	0	0	0	2	1	1	0
33	0	0	0	2	1	1	0
52	0	0	0	2	1	1	0
49	0	0	0	2	1	1	0
46	0	0	0	2	1	1	0
43	0	0	0	2	1	1	0
40	0	0	0	2	1	1	0
37	0	0	0	2	1	1	0
34	0	0	0	2	1	1	0
52	0	0	0	2	1	1	0
46	0	0	0	2	1	1	0
46	0	0	0	2	1	1	0
43	0	0	0	2	1	1	0
40	0	0	0	2	1	1	0
37	0	0	0	2	1	1	0
34	0	0	0	2	1	1	0
53	0	0	0	2	1	0	0
50	0	0	0	2	1	0	0
47	0	0	0	2	1	0	0
44	0	0	0	2	1	0	0
41	0	0	0	2	1	0	0
38	0	0	0	2	1	0	0
35	0	0	0	2	1	0	0
5	0	0	0	2	0	0	1
4	0	0	0	2	0	0	1
3	0	0	0	2	0	0	1
2	0	0	0	2	0	0	1
20	0	0	0	2	0	0	1
21	0	0	0	2	0	0	1
29	0	0	0	2	0	0	1

28	0	0	0	2	0	0	1	-14.	3.6
8	0	0	0	2	0	0	1	-203.	4.26
8	0	0	1	3	0	0	1	203.	4.26
54	0	0	0	2	0	0	1	-64.	3.225
55	0	0	0	2	0	0	1	-80.	1.25
55	0	0	0	2	0	0	1	-81.	2.925
48	49	0	0	2	1	0	0	-7.5	

ZATIZENI UZLU [kN,kNm], [mm, mm/m]
 CISLO UZLU TYPY ZATIZ. VELIKOST
 V SERII ZATIZENI
 PRVNI POSL. T1 T2 SMER

17	0	0	0	2	-26.3
14	0	0	0	2	-56.
10	0	0	0	2	-56.
22	0	0	0	2	-35.
6	0	0	0	2	-35.
23	0	0	0	2	-14.
15	0	0	0	2	-14.
11	0	0	0	2	-14.
7	0	0	0	2	-14.
33	0	0	0	2	-52.
33	0	0	1	3	20.8
36	0	0	0	2	-146.
21	0	0	0	2	-31.7
17	0	0	0	2	-37.5
13	0	0	0	2	-37.5
9	0	0	0	2	-25.5
5	0	0	0	2	-25.5
26	0	0	0	2	-15.8
32	0	0	0	2	-51.4
28	0	0	0	2	-51.4
24	0	0	0	2	-50.8
20	0	0	0	2	-59.9
16	0	0	0	2	-37.5
12	0	0	0	2	-25.5
8	0	0	0	2	-25.5

POPIS ZATEZOVACICH STAVU - ZS 2

NAZEV :

PRITIZENI OD RADY E

ZATIZENI UZLU [kN,kNm], [mm, mm/m]
 CISLO UZLU TYPY ZATIZ. VELIKOST
 V SERII ZATIZENI
 PRVNI POSL. T1 T2 SMER

8	0	0	0	2	-37.5
12	0	0	0	2	-37.5
16	0	0	0	2	-37.5
20	0	0	0	2	-37.5
28	0	0	0	2	-37.5

POPIS ZATEZOVACICH STAVU - ZS 3

NAZEV :

UZITNE

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII	TYPY	ZATIZENI	POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE
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PRVNI POSL. T1 T2 SM T3 T4 T5

33	34	0	0	2	1	0	0	-7.5
36	37	0	0	2	1	0	0	-7.5
39	40	0	0	2	1	0	0	-7.5
42	43	0	0	2	1	0	0	-7.5
45	46	0	0	2	1	0	0	-7.5
48	49	0	0	2	1	0	0	-7.5
48	49	0	0	2	1	0	0	-12.

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU V SERII	TYPY	ZATIZ.	VELIKOST ZATIZENI
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PRVNI POSL. T1 T2 SMER

27	28	0	0	2	-21.
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POPIS ZATEZOVACICH STAVU - ZS 4

NAZEV :

SNIH

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII	TYPY	ZATIZENI	POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE
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PRVNI POSL. T1 T2 SM T3 T4 T5

8	0	0	0	2	0	0	1	-78.	4.26
8	0	0	1	3	0	0	1	78.	4.26

POPIS ZATEZOVACICH STAVU - ZS 5

NAZEV :

VITR

ZATIZENI PRUTU [kN,kNm], [mm,mm/m]

CISLO PRUTU V SERII	TYPY	ZATIZENI	POCATECNI INTENZITA	KONCOVA INTENZITA	POLOHA ZACATKU	POLOHA KONCE
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PRVNI POSL. T1 T2 SM T3 T4 T5

15	16	0	0	1	1	0	1	-1.65
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POPIS ZATEZOVACICH STAVU - ZS 6

NAZEV :

Y+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	172.6
33	0	0	0	2	-590.6
36	0	0	0	2	-637.4

POPIS ZATEZOVACICH STAVU - ZS 7

NAZEV :

Y-

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	32.5
33	0	0	0	2	-797.2
36	0	0	0	2	-852.6

POPIS ZATEZOVACICH STAVU - ZS 8

NAZEV :

X+

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	100.6
33	0	0	0	2	-695.6
36	0	0	0	2	-746.8

POPIS ZATEZOVACICH STAVU - ZS 9

NAZEV :

X-

ZATIZENI PRUTU [kN,kNm], [mm, mm/m]

END

ZATIZENI UZLU [kN,kNm], [mm, mm/m]

CISLO UZLU TYPY ZATIZ. VELIKOST

V SERII ZATIZENI

PRVNI POSL. T1 T2 SMER

33	0	0	0	1	-94.9
33	0	0	0	2	-746.3
36	0	0	0	2	-695.2

VÝPOČET EXTREMNÍCH ÚČINKŮ

RAM CD - KRAJNÍ

SUPERPOSICE ZATEZOVACÍCH STAVŮ - POPIS KOMBINACÍ

NAZEV :

KOMB-KOMBINACE 1 - 1.1xSTALE

Císlo kombinace:

1

POPIS SUPERPOSICI ZATEZOVACÍCH STAVŮ

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	2	3	4	4	4	4
KOEFICIENTY:	1.1	1.1	1.	1.4	1.2	1.	1.	1.	1.

NAZEV :

KOMB-KOMBINACE 2 - 0.9xSTALE

Císlo kombinace:

2

POPIS SUPERPOSICI ZATEZOVACÍCH STAVŮ

ZAT. STAVY	1	2	3	4	5	6	7	8	9
SKUPINY :	0	0	1	2	3	4	4	4	4
KOEFICIENTY:	.9	.9	1.	1.4	1.2	1.	1.	1.	1.

1 - STALE

2 - PRITÍŽENÍ OD RADY E

3 - UŽITNÉ

4 - SNÍH

5 - VÍTR

6 - Y+

7 - Y-

8 - X+

9 - X-