

AST

ED. AST & CO.

Baugesellschaft m.b.H.
Konstruktionsbüro

Bauherr:

SKODA

Bauvorhaben:

SKO -ENERGO s.r.o

Statische Berechnung

Inhalt: Maschinenhaus

Teil: **Trafoaufstellplatz**

Projekt-Nr.:

2546

aufgestellt:



Datum: 97-06

KB-Nr.:

2467

gesehen KB-PL:



Datum: 97-06

Statik-Nr.:

T71-/0003
0016

gesehen KBL:



Datum: 97-06

INHALT:

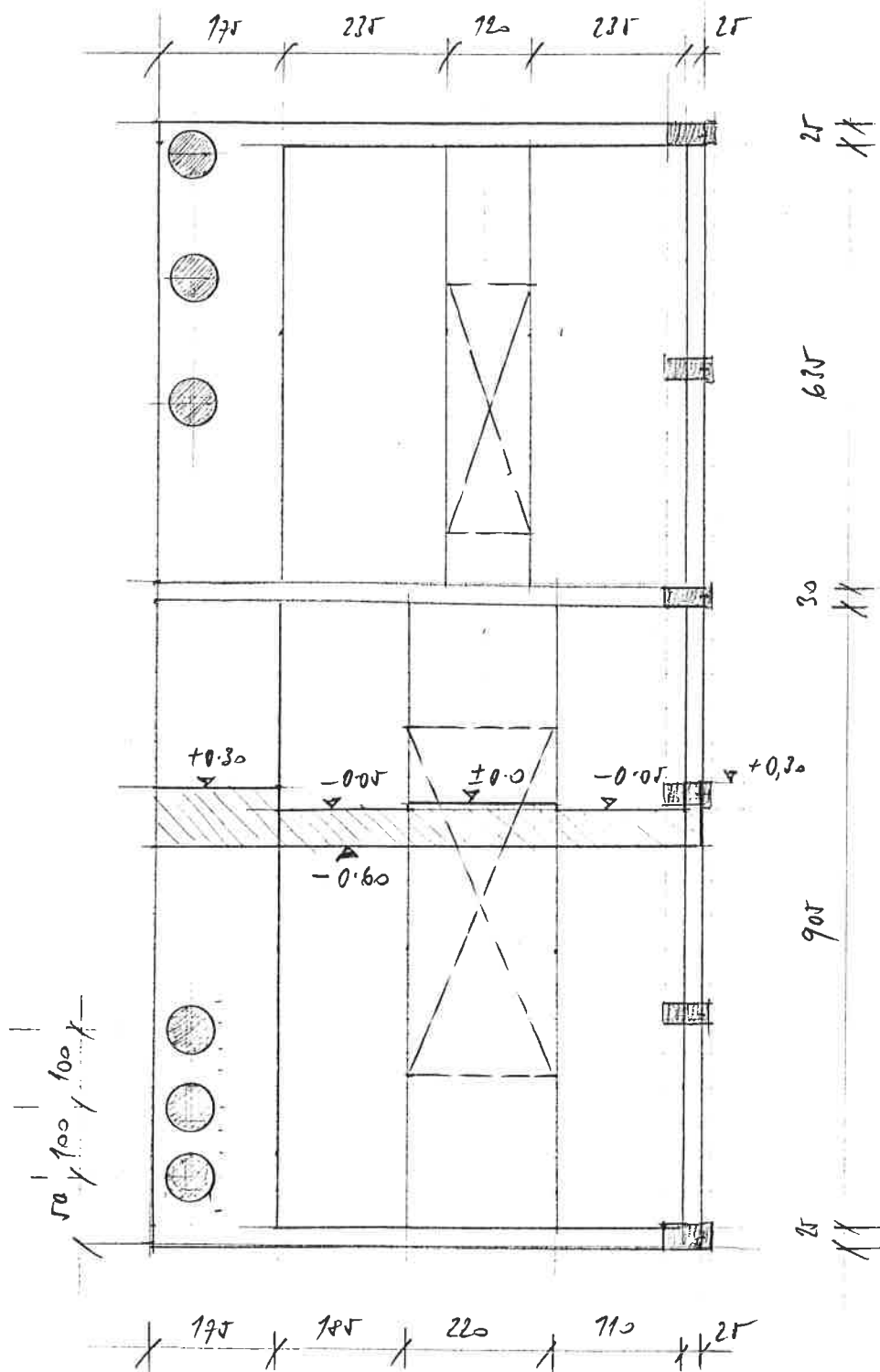
1) BELEGCH A/ Y38 - Y40

2) BELEGCH B/ Y43 - Y44

Trafs aufstellplatz

1) Bereich A / Y38 - Y40

1,1) Übersicht:



1.2) Lasten

- Trafsgewicht

2 ANGABE ECH

Großen Trafs

1000 kW

Kleinen Trafs

500 kW

- Nutzlast im ges. Plattenbereich

$$p = 5,0 \text{ kW/m}^2$$

- Brandwärme $H \sim 8,0 \text{ m}$

$$q = 8,0 \cdot 6,0 = 48,0 \text{ kW/m}$$

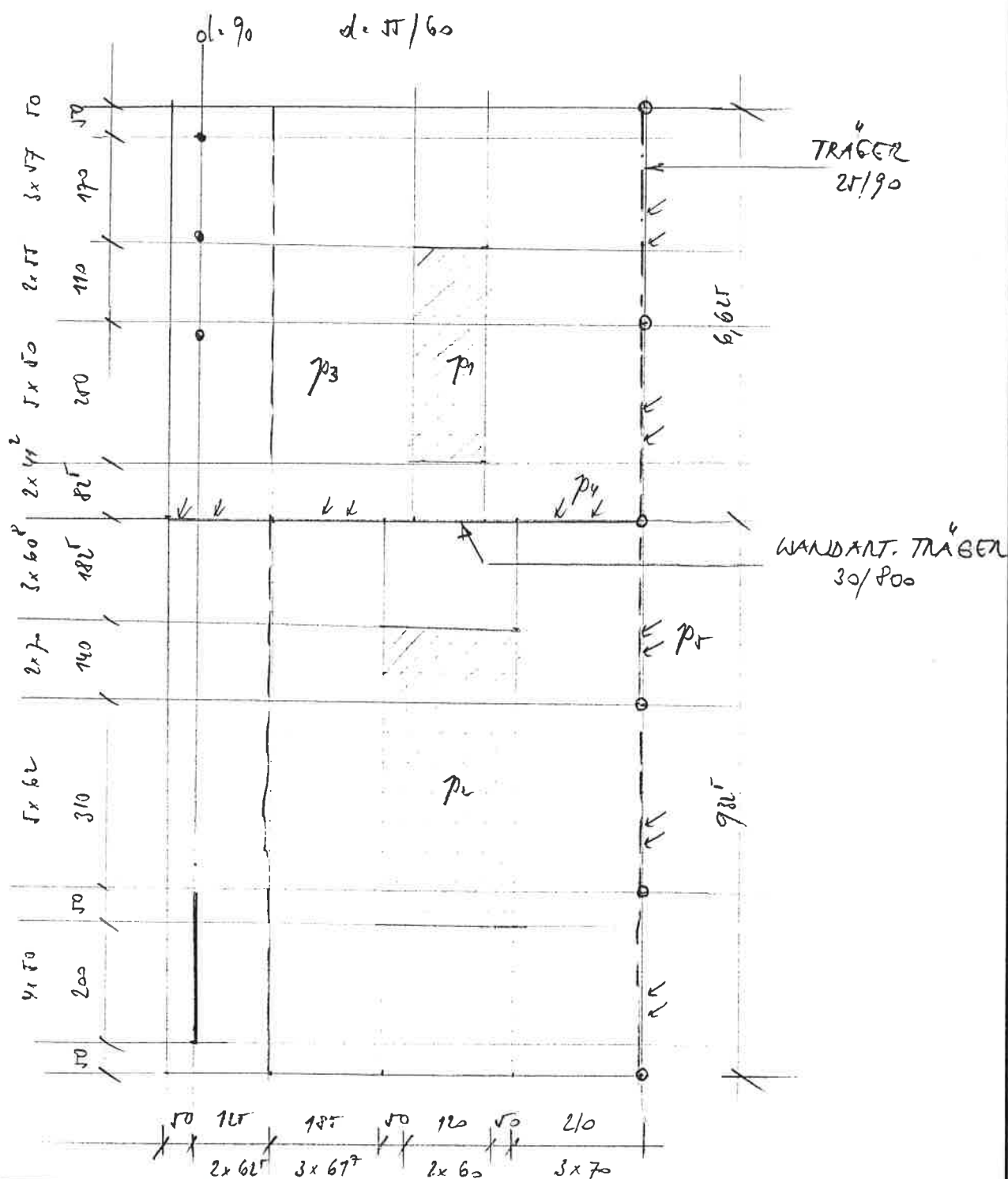
- Ständige Last

$$H.p.lath \quad d = 25,0 \text{ kW/m}^2$$

1,3) Grundplatte

Schritthafterstellung v. Bemessung
mit EDV Programm.

1,3,1) System



1,3,2) Lastangaben

$$p_1 = 100 \cdot \frac{1}{1,2 \cdot 3,6} = 116 \text{ kW/m}^2$$

$$p_2 = 1000 \cdot \frac{1}{2,2 \cdot 5,0} = 91 \text{ kW/m}^2$$

$$p_3 = 5 \text{ kW/m}^2$$

$$p_4 = 8,0 \cdot 7,5 = 60 \text{ kW/m}^2$$

$$p_5 = 48 \text{ kW/m}^2$$

1,3,3) Schnittkräfte u. Bemessung

Betonstift B25

Betonstahl B17 420/500

siehe nachfolgende Ausdrücke u. Plots

1258	257	256	272	271	255	254	253	252	251	250	249	248	247	246	245	244	212	211	210	209	208	207	206	205			
464	461	266	267	268	269	270	260	383	382	381	380	379	378	377	376	375	243	021	3	212	211	210	209	208	207	206	205
464	467	265	264	263	262	261	384	383	382	381	380	379	378	377	376	375	243	021	4	441	440	439	438	437	436	435	434
259	466	362	363	374	373	364	365	366	367	368	369	370	371	372	243	021	5	442	443	444	445	446	447	448	449		
227	228	229	274	273	230	231	232	233	234	235	236	237	238	239	240	241	216	217	218	219	220	221	222	223	224		
181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	166	147	146	145	144	143	142	141	140	139			
182	348	347	346	345	344	343	342	341	340	339	338	337	336	335	165	134	419	418	417	416	415	414	413	412			
183	349	350	351	352	353	354	355	356	357	358	359	360	361	334	164	129	420	421	422	423	424	425	426	427	428	429	
184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	163	150	421	422	423	424	425	426	427	428	429		
110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	051	422	423	424	425	426	427	428	429			
111	319	318	317	316	315	314	313	312	311	310	309	308	307	306	130	052	153	154	155	156	157	158	159	160			
112	320	321	322	323	324	325	326	327	328	329	330	331	332	333	130	054	85	86	87	88	89	90	91	92			
113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	055	54	53	52	51	50	49	48	47			
36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	215	357	397	396	395	394	393	392	391	390			
37	303	302	301	300	299	304	298	297	296	295	294	293	292	291	205	358	399	458	457	456	455	454	459	453			
38	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	135	359	400	401	402	403	404	405	406	407		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	360	61	62	63	64	65	66	67	68	
515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	537	538	539	540	541	542	543	544	545	

PROJEKT

1

by sko energo trafo

PLOT

1

system

MASZSTAB - 1 : 50.00

0.00 50.00 100.00 150.00 200.00 250.00

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:43 Seite: 181

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

Lastfall Nr.: 1 lfl1 ständ.last
Ausgabe :

Lastangaben
Teilsummen

Ueberlagerungsdatei:
Faktor 1.000

uelag
Ueberlagerungs-Kennziffer: 1

Ueberlagerungsdatei wird geloesch

VON	BIS	STEP	ART	SE/KN	EINGABEWERTE			
95	132	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-168.828	0.000	0.000	
306	333	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-135.743	0.000	0.000	
462	462	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-3.154	0.000	0.000	
71	94	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-119.250	0.000	0.000	
227	274	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-231.318	0.000	0.000	
362	384	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-120.707	0.000	0.000	
461	461	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-2.198	0.000	0.000	
464	467	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-12.949	0.000	0.000	
199	226	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-154.013	0.000	0.000	
431	450	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-106.847	0.000	0.000	
163	198	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-133.432	0.000	0.000	
334	361	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-103.772	0.000	0.000	
133	162	1	11	0	25.000	0.000	0.000	0.000

Prog.: PL REV. 5.60
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bv sko energo trafo

	SUMME				-119.948	0.000	0.000	
409	430	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-91.518	0.000	0.000	
463	463	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-2.604	0.000	0.000	
1	38	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-151.055	0.000	0.000	
275	305	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-118.204	0.000	0.000	
39	70	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-113.277	0.000	0.000	
385	408	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-87.641	0.000	0.000	
451	460	1	11	0	25.000	0.000	0.000	0.000
	SUMME				-35.925	0.000	0.000	

	ART	XBEG	YBEG		Q	A	PHI
	13	9.33	-0.01		-60.00	7.90	90.00
SUMME				-474.000	0.000	0.000	
	13	0.00	-0.01		-48.00	15.95	0.00
SUMME				-765.600	0.000	0.000	
GESAMTSUMME				-3251.984	0.000	0.000	

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bv sko energo trafo

Lastfall Nr.: 2 trafo1
Ausgabe :Lastangaben
Teilsummen

	ART	XBEG	YBEG	Q	A	B	PHI
	14	2.50	2.09	-91.00	5.00	2.20	0.00
SUMME				-1001.000	0.000	0.000	

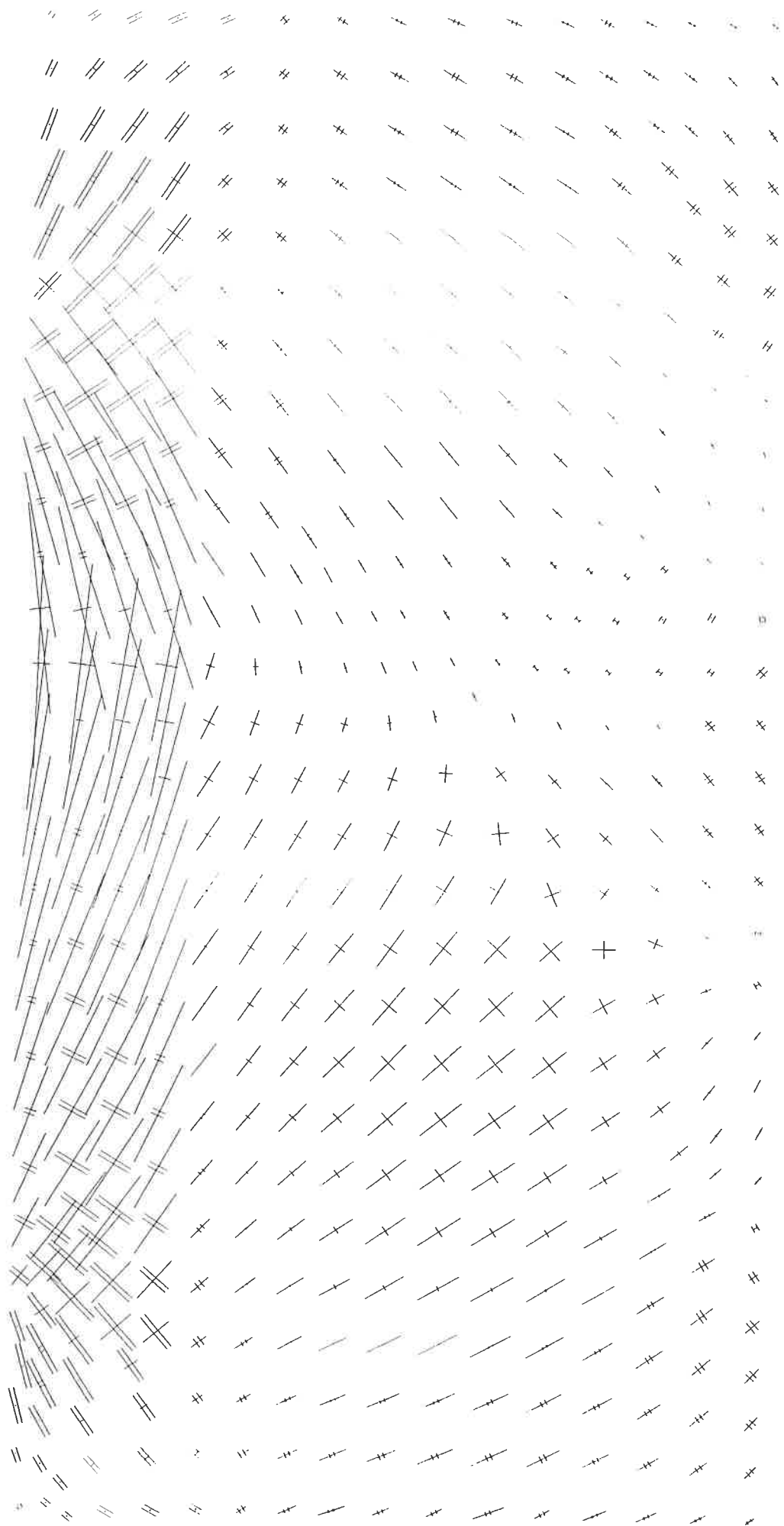
VON	BIS	STEP	ART	SE/KN	EINGABEWERTE			
1	38	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-54.929	0.000	0.000	
95	132	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-56.276	0.000	0.000	
163	198	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-48.521	0.000	0.000	
227	361	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-177.370	0.000	0.000	
461	462	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-1.540	0.000	0.000	
464	467	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-2.878	0.000	0.000	
	GESAMTSUMME				-1342.514	0.000	0.000	

bv sko energo trafo

Lastfall Nr.: 3 trafo2
 Ausgabe :

Lastangaben
 Teilsummen

	ART		XBEG	YBEG	Q	A	B	PHI
	14		10.15	2.59	-116.00	3.60	1.20	0.00
SUMME					-501.120	0.000	0.000	
VON	BIS	STEP	ART	SE/KN	EINGABEWERTE			
39	94	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-80.942	0.000	0.000	
131	162	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-45.458	0.000	0.000	
199	226	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-34.225	0.000	0.000	
362	460	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-128.780	0.000	0.000	
463	463	1	1	0	-5.000	-5.000	-5.000	-5.000
	SUMME				-0.947	0.000	0.000	
GESAMTSUMME					-791.471	0.000	0.000	



PROJEKT bv sko energo trafo
 PLOT 2 momente
 MASZTAB - 1 : 100,00



Prog.: PL REV. 5.60

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Author:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

by sko energo trafo

FUNK	LF.VO	LF.BI	LF.ST	ID	MULTIP	MULTIP1	VON	DATEI	NACH	DATEI
CLEAR									uelag	
SINGL	1	1	1	1	1.000				uelag	
SINGL	2	3	1	2	1.000				uelag	

BEMESSUNG NACH DIN 1045
 Kraefte von uelag
 Ergebnisdatei bew
 Sicherheitsfaktor..... 1.75

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
1	0.550	1.42	0.19	3.47	5.18	10754.3	54.4	110.9	1a
2	0.550	1.70	2.16	7.17	6.89	13487.7	44.5	91.8	1a
3	0.550	2.04	3.65	9.17	7.75	14657.5	96.7	200.2	1a
4	0.550	7.86	5.87	13.89	9.96	14795.4	170.6	356.7	5.9
		3.44	4.58	9.58	8.70	15177.8			5.9 -
5	0.550	13.04	6.54	14.54	11.27	11328.8	263.4	538.1	9.0
		6.37	4.92	7.91	9.69	14924.3			9.1 -
6	0.550	20.58	12.53	13.16	17.72	7316.7	452.1	982.8	22.4
		9.89	3.73	2.68	9.07	13163.8			20.0 -
7	0.550	12.67	6.87	8.10	10.91	7564.4	337.3	733.2	12.4
		4.92	0.93	0.00	4.40	8599.5			11.4 -
8	0.550	0.48	0.80	4.53	3.72	10515.6	151.6	309.0	1b
9	0.550	0.00	1.21	7.13	3.39	11730.8	63.8	130.6	1a
10	0.550	0.00	1.40	7.13	3.24	11649.4	93.2	190.8	1a
11	0.550	6.06	1.77	9.67	4.89	8888.5	181.8	395.3	6.6
		0.58	1.45	4.94	3.31	10505.5			6.2 -
12	0.550	11.04	8.63	11.04	8.63	4108.8	366.1	795.8	14.7
		2.65	1.06	0.54	2.32	7144.7			12.7 -
13	0.550	15.94	9.59	10.40	13.52	5683.5	391.5	851.1	16.8
		6.72	2.26	1.36	5.95	10858.4			14.8 -
14	0.550	9.00	5.33	12.18	7.92	10416.3	206.2	431.2	7.2
		3.83	4.25	7.06	6.86	13426.2			7.1 -
15	0.550	2.32	4.92	8.96	6.42	14025.5	121.6	251.1	1b
16	0.550	2.59	5.04	8.68	6.01	13731.0	60.5	124.9	1a
17	0.550	3.36	4.80	6.75	4.97	12384.8	60.6	121.6	1a
18	0.550	6.05	5.15	4.45	4.65	12061.4	130.9	265.6	1b
19	0.550	8.44	5.73	3.39	5.24	13400.6	129.0	265.9	1b
20	0.550	9.89	5.39	1.90	5.14	13894.2	140.6	290.2	1b
21	0.550	10.50	4.69	0.72	4.78	13858.8	146.4	302.1	1b
22	0.550	4.70	1.89	4.70	6.72	12253.2	103.0	210.2	1a
23	0.550	1.06	0.00	8.02	9.10	14745.8	92.8	191.6	1a
24	0.550	0.00	0.00	9.72	11.08	16068.7	96.2	199.6	1a
25	0.550	0.00	0.00	9.88	12.22	16493.8	103.9	216.2	1a
26	0.550	0.00	0.00	9.06	12.39	16269.8	110.2	229.0	1a
27	0.550	0.00	0.00	10.37	13.80	17129.9	112.1	234.1	1a
28	0.550	0.00	0.00	12.04	16.05	17509.4	111.3	233.8	1a
29	0.550	0.00	0.00	12.61	17.67	17515.1	111.4	234.9	1a
30	0.550	0.73	0.00	12.34	19.24	17516.2	108.5	229.4	1a
31	0.550	1.62	0.00	12.07	21.04	17516.4	100.4	212.8	1a
32	0.550	2.27	0.00	11.56	21.87	17515.0	86.0	182.2	1a

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Autor: ** TDV-Graz-AUSTRIA **

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bv sko energo trafo

B 25	h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
33	0.550	3.58	0.00	10.75	21.51	17509.9	68.4	144.5	1a
34	0.550	4.20	0.00	9.55	20.33	17511.6	53.4	112.3	1a
35	0.550	4.77	0.00	8.09	19.28	17512.1	56.2	118.0	1a
36	0.550	3.85	0.00	5.13	16.66	16130.2	94.3	196.2	1a
37	0.550	3.38	0.00	4.67	13.72	15052.2	71.2	147.5	1a
38	0.550	2.54	0.00	4.17	9.80	13384.4	43.7	90.1	1a
39	0.550	1.21	1.08	2.83	3.33	9157.7	112.8	227.8	1a
40	0.550	1.92	0.97	3.19	5.95	11027.9	65.1	132.6	1a
41	0.550	2.50	0.78	3.61	8.36	12476.4	82.9	169.2	1a
42	0.550	2.86	0.73	3.99	10.26	13484.9	98.7	202.0	1a
43	0.550	3.23	0.84	4.32	11.61	14159.0	111.5	228.3	1a
44	0.550	3.61	1.20	4.64	12.45	14604.0	123.1	254.7	1b
45	0.550	4.33	2.44	7.27	14.50	16295.3	23.1	48.0	1a
46	0.550	3.98	2.55	8.59	14.88	16863.3	21.1	43.9	1a
47	0.550	3.91	2.85	10.02	15.30	17438.6	33.0	68.9	1a
48	0.550	3.85	3.09	11.10	15.34	17510.7	46.7	97.4	1a
49	0.550	3.78	3.30	11.42	14.70	17507.9	58.2	121.5	1a
50	0.550	3.66	3.48	11.00	13.37	17201.1	68.7	143.6	1a
51	0.550	3.62	3.68	9.89	11.47	16258.3	79.8	166.3	1a
52	0.550	3.87	3.90	8.01	9.24	14793.4	93.0	192.7	1a
53	0.550	4.58	4.08	5.15	6.92	12573.3	113.5	233.3	1a
54	0.550	5.90	4.17	2.55	4.62	11535.5	136.5	277.9	1b
55	0.550	9.56	3.62	0.64	2.63	12570.7	168.7	346.4	1b
56	0.550	9.52	3.65	0.00	2.44	12488.5	152.2	312.4	1b
57	0.550	8.81	3.71	0.00	2.30	12161.9	136.3	279.3	1b
58	0.550	7.70	4.02	0.00	2.07	12344.1	130.8	267.6	1b
59	0.550	8.35	4.28	0.00	2.13	12778.5	133.9	273.8	1b
60	0.550	13.15	5.91	2.42	3.78	8350.4	210.5	457.5	7.6
		7.71	3.44	0.00	1.35	12044.4			7.2
61	0.550	5.16	3.61	1.07	2.72	10816.0	138.0	282.0	1b
62	0.550	3.39	3.16	2.55	2.88	9424.2	100.2	203.9	1a
63	0.550	2.48	2.88	3.23	2.95	9170.0	62.4	126.9	1a
64	0.550	2.65	2.50	2.82	3.09	8974.1	99.0	199.7	1a
65	0.550	8.22	7.26	3.29	8.28	9784.9	257.1	558.9	9.3
		4.54	2.58	1.64	3.71	9784.9			8.7
66	0.550	14.41	7.54	11.54	9.38	7044.5	314.0	682.3	11.4
		6.25	4.23	3.68	5.89	11632.7			10.7
67	0.550	7.82	4.67	12.05	6.72	12018.3	206.7	432.5	7.2
		3.15	4.15	7.21	6.20	13189.6			7.1
68	0.550	1.55	3.84	8.56	5.61	13500.3	130.7	269.4	1b
69	0.550	1.04	3.41	8.07	5.04	13022.6	64.3	132.3	1a
70	0.550	1.16	2.60	6.23	4.49	11877.3	29.3	59.6	1a
71	0.600	4.19	1.37	4.63	12.64	14072.3	129.9	244.1	1b
72	0.600	4.37	0.97	4.69	13.35	14333.2	156.8	294.7	1b
73	0.600	5.88	3.12	7.31	15.32	15896.1	35.5	67.1	1a
74	0.600	5.42	3.48	8.49	15.54	16348.1	53.6	101.7	1a
75	0.600	5.27	3.89	10.39	16.20	17106.4	70.2	133.5	1a
76	0.600	5.03	4.29	12.63	16.89	17515.4	68.7	131.2	1a

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 188

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0	
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
77	0.600	4.68	4.64	14.41	17.11	17511.8	49.2	94.4	1a	
78	0.600	4.23	4.93	15.25	16.52	17512.7	30.3	58.1	1a	
79	0.600	3.81	5.09	15.00	15.11	17507.8	23.4	44.5	1a	
80	0.600	3.58	5.05	13.40	13.00	17101.1	39.6	75.3	1a	
81	0.600	3.73	4.75	10.10	10.31	15288.3	78.7	148.5	1a	
82	0.600	5.55	4.17	5.24	7.14	11853.0	129.1	240.8	1b	
83	0.600	10.42	4.29	2.49	3.57	13080.1	146.7	274.7	1b	
84	0.600	15.48	5.18	1.49	4.22	11555.1	182.2	337.9	5.6	
		10.89	3.85	1.49	2.94	12954.5			5.7	-
85	0.600	5.98	4.32	3.57	6.37	11064.7	164.6	305.5	1b	
86	0.600	4.53	4.59	7.92	9.25	14148.8	124.9	234.9	1b	
87	0.600	3.98	4.70	11.40	11.94	16217.4	91.4	173.2	1a	
88	0.600	3.91	4.66	13.33	14.14	17394.8	66.6	126.9	1a	
89	0.600	4.10	4.52	14.11	15.79	17507.0	46.9	89.7	1a	
90	0.600	4.36	4.29	13.92	16.73	17509.2	30.3	58.1	1a	
91	0.600	4.60	4.00	12.74	16.87	17516.4	27.6	52.4	1a	
92	0.600	4.75	3.66	10.84	16.33	17267.5	26.9	50.9	1a	
93	0.600	4.86	3.28	8.93	15.57	16496.8	13.9	26.0	1a	
94	0.600	5.41	3.07	7.49	15.05	15880.7	14.8	27.9	1a	
95	0.600	5.10	1.54	3.08	1.97	8864.9	163.6	302.1	1b	
96	0.600	0.00	0.00	4.34	3.16	9293.1	160.2	295.3	1b	
97	0.600	0.00	0.00	9.69	7.09	13979.7	130.7	245.3	1b	
98	0.600	0.00	0.00	15.02	11.23	16977.8	102.1	194.1	1a	
99	0.600	0.00	0.00	19.11	15.05	17516.3	59.5	114.7	1a	
100	0.600	0.00	0.00	21.34	18.26	17507.8	39.1	75.8	1a	
101	0.600	0.00	0.00	22.19	20.72	17507.6	39.4	76.9	1a	
102	0.600	0.00	0.00	22.03	22.51	17507.0	50.9	99.6	1a	
103	0.600	0.00	0.00	21.00	23.64	17506.6	65.2	128.0	1a	
104	0.600	0.55	0.05	19.23	24.12	17506.5	79.9	156.4	1a	
105	0.600	1.62	0.00	16.72	23.95	17506.2	92.7	180.6	1a	
106	0.600	2.56	0.00	13.60	23.24	17517.1	103.2	199.7	1a	
107	0.600	3.32	0.00	10.58	22.37	17509.5	90.7	174.0	1a	
108	0.600	4.68	0.00	8.36	21.69	17513.3	73.0	139.2	1a	
109	0.600	6.08	0.00	7.18	21.56	17388.6	47.6	90.6	1a	
110	0.600	5.06	0.00	5.08	23.76	15928.7	183.1	345.0	5.8	
		4.75	0.00	4.77	19.69	16168.6			5.8	-
111	0.600	4.65	0.00	5.05	20.48	16452.5	157.6	298.7	1b	
112	0.600	4.54	0.00	5.12	19.83	16326.2	131.2	248.5	1b	
113	0.600	4.52	0.00	4.99	17.90	15791.6	103.0	194.6	1a	
114	0.600	5.75	0.00	8.06	20.76	17486.6	48.1	91.6	1a	
115	0.600	4.77	0.00	9.60	21.79	17506.6	40.9	78.0	1a	
116	0.600	3.37	0.00	11.46	22.95	17510.1	54.9	105.4	1a	
117	0.600	2.24	0.00	13.48	23.67	17516.7	71.5	138.1	1a	
118	0.600	1.49	0.00	15.16	23.58	17505.9	77.7	150.5	1a	
119	0.600	0.58	0.00	16.33	22.84	17506.6	79.6	154.4	1a	
120	0.600	0.00	0.00	16.69	21.42	17507.1	82.4	159.7	1a	
121	0.600	0.00	0.00	16.27	19.39	17506.1	87.5	169.1	1a	
122	0.600	0.00	0.00	14.99	16.81	17512.7	90.7	174.1	1a	

Prog.: PL REV. 5.60

Datum: 97/09/25 Zeit: 17:45 Seite: 189

Autor: ** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
123	0.600	0.00	0.00	12.80	13.53	17083.0	95.2	181.0	1a
124	0.600	0.00	0.00	11.60	11.99	16294.4	102.6	194.1	1a
125	0.600	0.00	0.00	10.51	10.57	15510.1	118.7	223.7	1a
126	0.600	0.00	0.00	7.78	8.46	13798.4	126.9	237.5	1b
127	0.600	4.49	1.08	3.94	6.23	11101.7	140.7	260.1	1b
128	0.600	12.13	4.88	0.94	4.52	13956.9	167.2	314.1	1b
129	0.600	16.50	7.10	1.22	5.26	12656.2	176.9	333.4	5.6
		12.04	4.97	1.22	3.88	13963.5			5.5
130	0.600	16.57	6.27	1.44	4.44	12243.8	183.4	341.1	5.7
		11.96	4.55	1.44	3.25	13760.2			5.7
131	0.600	9.72	3.12	1.96	2.30	12252.0	171.9	320.9	1b
132	0.600	7.10	2.15	2.54	1.82	10526.6	159.5	296.0	1b
133	0.550	4.49	1.43	5.00	17.15	14111.5	198.1	419.4	7.0
		4.26	1.43	4.77	12.73	14759.6			6.8
134	0.550	4.52	7.52	4.45	13.73	12765.6	216.3	458.1	7.6
		4.51	3.60	4.45	9.38	13182.5			7.4
135	0.550	4.37	10.57	4.13	9.10	9295.8	234.9	496.9	8.3
		4.21	6.43	3.97	4.81	11605.0			8.0
136	0.550	5.22	16.34	3.35	5.47	11063.6	244.4	514.6	8.6
		4.44	10.45	2.56	0.00	13771.7			8.4
137	0.550	6.39	9.79	3.12	1.36	14357.7	113.2	234.2	1a
138	0.550	7.46	8.29	2.99	3.04	14201.6	128.6	265.8	1b
139	0.550	8.78	8.12	3.99	4.90	14656.5	137.2	284.0	1b
140	0.550	9.35	8.66	6.46	7.49	15079.8	136.5	283.0	1b
141	0.550	8.61	9.13	9.94	9.81	15706.5	127.2	264.4	1b
142	0.550	6.84	8.92	13.48	11.78	17460.7	118.2	247.3	1b
143	0.550	4.68	8.01	16.52	13.50	17500.4	118.3	249.9	1b
144	0.550	2.40	6.61	18.78	14.74	17509.9	127.1	270.5	1b
145	0.550	0.15	4.85	20.05	15.30	17513.5	157.3	335.8	1b
146	0.550	6.78	7.20	23.49	18.19	16926.1	219.5	477.2	8.0
		0.00	3.35	18.77	14.11	17506.9			7.8
147	0.550	1.82	3.60	19.85	10.35	16402.7	181.5	379.0	6.3
		0.00	3.42	15.93	10.14	17513.2			6.3
148	0.550	0.78	3.16	8.39	6.23	13705.6	107.3	221.3	1a
149	0.550	3.39	3.72	6.00	5.03	12053.0	100.2	205.3	1a
150	0.550	5.65	3.83	4.04	4.31	11216.9	103.7	212.3	1a
151	0.550	7.18	4.10	3.40	3.87	12145.1	115.1	236.2	1a
152	0.550	8.28	4.17	2.92	3.74	12688.7	116.7	239.9	1a
153	0.550	4.50	3.72	6.32	6.82	12949.3	99.1	203.9	1a
154	0.550	2.58	4.23	10.82	9.97	16064.5	58.6	122.0	1a
155	0.550	2.82	4.57	13.51	12.47	17513.6	39.5	82.5	1a
156	0.550	3.38	4.65	14.54	14.39	17512.9	43.0	90.1	1a
157	0.550	4.05	4.51	14.13	15.47	17514.8	55.4	116.3	1a
158	0.550	4.63	4.23	12.77	15.72	17511.0	68.8	145.0	1a
159	0.550	5.01	3.91	10.83	15.32	17507.2	76.1	159.6	1a
160	0.550	5.23	3.60	8.88	14.70	16905.1	72.0	150.4	1a
161	0.550	5.31	3.34	7.40	14.18	16243.7	62.0	129.1	1a
162	0.550	5.52	3.18	6.71	14.19	15995.9	44.4	92.3	1a

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 190

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
163	0.550	2.26	1.04	3.24	2.16	8291.1	150.7	302.8	1b	
164	0.550	0.00	0.39	3.90	2.38	9223.4	150.6	303.2	1b	
165	0.550	0.00	0.00	5.59	3.44	10922.1	157.9	321.8	1b	
166	0.550	0.00	0.00	16.17	7.40	13605.6	188.8	389.3		6.5
		0.00	0.00	11.99	7.02	15343.3				6.5
167	0.550	0.00	1.88	22.22	16.79	15946.7	222.3	469.5		7.8
		0.00	0.00	17.43	12.42	17514.1				7.8
168	0.550	0.00	0.70	25.40	17.69	17516.7	169.3	358.1		6.0
		0.00	0.00	21.44	15.70	17507.0				6.0
169	0.550	0.00	0.09	23.18	16.95	17506.5	157.8	340.0	1b	
170	0.550	0.00	0.63	23.82	17.34	17506.2	157.3	339.5	1b	
171	0.550	0.00	1.03	23.68	17.24	17506.2	156.7	338.2	1b	
172	0.550	0.00	1.52	22.87	16.87	17506.6	153.3	330.0	1b	
173	0.550	0.00	1.91	21.44	16.35	17507.3	146.9	315.2	1b	
174	0.550	0.13	2.26	19.44	15.64	17507.5	138.5	295.7	1b	
175	0.550	1.54	2.58	16.83	14.77	17517.2	129.2	273.9	1b	
176	0.550	3.02	2.97	13.59	13.68	17515.2	123.6	259.7	1b	
177	0.550	4.71	3.51	10.18	12.41	16650.9	128.5	268.0	1b	
178	0.550	6.38	3.72	6.61	10.80	14822.9	129.4	268.0	1b	
179	0.550	6.32	4.02	4.19	8.38	12708.3	125.3	257.6	1b	
180	0.550	6.02	5.47	3.63	5.77	11786.5	130.4	267.3	1b	
181	0.550	5.34	12.50	3.88	8.76	10092.2	271.5	572.3		9.5
		4.51	6.28	3.05	2.70	11707.5				9.3
182	0.550	4.51	6.49	4.30	14.47	9964.4	262.0	554.5		9.2
		4.26	3.06	4.05	8.95	12788.2				9.0
183	0.550	4.64	0.55	4.66	19.48	13321.3	240.8	510.1		8.5
		4.55	0.55	4.58	14.43	15202.8				8.3
184	0.550	4.66	0.00	5.32	23.51	15086.4	221.2	458.3		7.6
		4.35	0.00	5.01	18.64	16613.3				7.7
185	0.550	5.33	0.00	6.88	20.05	17515.5	66.6	139.5	1a	
186	0.550	4.05	0.00	7.69	20.10	17509.4	85.8	180.1	1a	
187	0.550	3.22	0.00	9.51	20.73	17509.5	95.4	201.4	1a	
188	0.550	2.53	0.00	12.06	21.52	17516.3	104.4	222.0	1a	
189	0.550	1.66	0.00	14.86	22.23	17505.8	103.0	220.5	1a	
190	0.550	0.65	0.00	17.30	22.55	17506.1	94.6	203.8	1a	
191	0.550	0.00	0.00	19.17	22.37	17506.0	82.6	178.1	1a	
192	0.550	0.00	0.00	20.35	21.64	17506.2	70.1	151.1	1a	
193	0.550	0.00	0.00	20.83	20.35	17505.8	56.8	122.3	1a	
194	0.550	0.00	0.00	20.46	18.45	17507.6	45.4	97.4	1a	
195	0.550	0.00	0.00	19.00	15.88	17507.6	45.0	95.7	1a	
196	0.550	0.00	0.00	16.01	12.49	17510.9	68.6	144.5	1a	
197	0.550	0.00	0.00	11.49	8.72	15846.9	101.3	210.5	1a	
198	0.550	0.00	0.00	5.96	4.58	11792.6	137.3	280.6	1b	
199	0.900	3.38	8.50	2.05	0.00	9715.0	166.1	199.7	1b	
200	0.900	3.58	7.32	1.80	0.00	9337.9	87.8	105.5	1a	
201	0.900	3.10	4.55	0.90	0.00	7891.2	52.6	63.0	1a	
202	0.900	1.92	1.58	0.00	0.13	5389.3	18.7	22.2	1a	
203	0.900	6.66	2.99	0.00	1.38	8790.6	33.6	40.2	1a	

Prog.: PL REV. 5.60
 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

Datum:97/09/25 Zeit:17:45 Seite: 191

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
204	0.900	14.06	4.83	0.00	2.79	12016.2	24.5	29.6	1a	
205	0.900	27.92	19.00	0.00	9.82	15102.2	320.5	394.3	6.6	
		27.68	12.04	0.00	2.56	16734.6			6.6	-
206	0.900	54.88	20.42	39.40	11.00	10930.2	1178.1	1454.4	49.0	
		26.23	12.49	0.00	3.02	16591.7			48.7	-
207	0.900	39.11	12.22	29.96	10.84	9151.8	1084.2	1323.9	40.6	
		14.82	11.52	6.62	10.15	14107.7			40.5	-
208	0.900	29.37	11.91	39.99	12.07	9518.9	1066.2	1303.0	39.3	
		6.93	11.77	16.55	11.93	14604.6			39.3	-
209	0.900	23.91	11.27	46.96	12.15	10426.8	1072.3	1309.7	39.7	
		0.00	11.16	24.92	12.05	16274.5			40.3	-
210	0.900	13.58	10.97	53.66	11.68	12639.4	1053.9	1286.7	38.3	
		0.00	10.78	32.37	11.49	17325.4			39.2	-
211	0.900	4.46	9.79	60.24	11.04	14400.8	1030.1	1258.3	36.7	
		0.00	9.62	39.94	10.89	17504.1			37.9	-
212	0.900	0.07d	9.16	68.59	9.63	15642.1	1011.6	1240.9	35.6	
		0.00	8.71	49.06	9.19	17503.6			37.0	-
213	0.900	0.08d	3.03	78.26	13.51	17515.8	948.6	1176.5	32.0	
		0.06d	1.82	60.09	11.93	17516.3			33.4	-
214	0.900	0.07d	7.69	73.15	21.69	17509.1	504.7	637.8	10.6	
		0.06d	5.92	63.28	19.28	17513.0			10.8	-
215	0.900	0.06d	9.40	60.37	23.66	17506.9	238.1	301.4	5.0	
		0.06d	7.32	55.50	20.99	17506.9			5.1	-
216	0.900	0.00	7.00	48.29	18.72	17512.9	189.4	237.6	1b	
217	0.900	0.00	11.21	47.56	19.76	17513.7	243.4	302.0	5.0	
		0.00	7.58	42.35	16.20	17507.7			5.1	-
218	0.900	0.00	10.77	40.68	18.24	17504.0	218.8	275.2	1b	
219	0.900	0.00	13.20	35.91	18.01	17516.8	211.5	264.5	1b	
220	0.900	2.34	14.65	29.34	16.88	17501.0	201.4	249.8	1b	
221	0.900	8.94	15.48	21.55	15.28	16349.9	178.0	219.0	1b	
222	0.900	15.56	15.40	12.75	13.26	15182.3	175.1	214.6	1b	
223	0.900	19.58	13.55	4.28	10.44	15610.7	214.5	263.2	1b	
224	0.900	24.35	14.09	7.10	9.69	13291.2	255.5	309.7	5.2	
		18.11	10.88	0.00	6.43	14692.2			5.2	-
225	0.900	19.68	11.88	7.13	5.44	12094.9	260.2	313.7	5.2	
		13.21	9.55	0.00	3.06	13194.2			5.3	-
226	0.900	8.39	9.65	1.83	1.01	11866.6	200.2	242.5	1b	
227	0.900	3.96	5.87	1.66	0.27	8898.0	197.6	237.0	1b	
228	0.900	8.95	6.98	1.26	3.34	11185.4	199.7	241.4	1b	
229	0.900	18.68	12.05	5.74	10.76	10789.5	251.8	303.5	5.1	
		13.05	7.22	0.21	5.90	12482.0			5.1	-
230	0.900	7.76	10.59	15.30	12.70	14505.9	134.4	164.3	1a	
231	0.900	2.75	10.94	24.05	13.89	16511.8	135.6	167.0	1a	
232	0.900	0.00	10.57	31.23	14.64	17502.7	180.1	223.1	1b	
233	0.900	0.00	10.29	37.33	15.33	17513.5	217.1	271.0	1b	
234	0.900	0.00	11.30	47.46	17.13	17513.0	246.6	306.8	5.1	
		0.00	9.97	42.20	15.86	17516.3			5.2	-
235	0.900	0.05d	10.59	51.34	17.29	17504.9	269.9	337.2	5.6	

Prog.: PL REV. 5.60

Datum: 97/09/25 Zeit: 17:45 Seite: 192

Autor: ** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		0.00	9.51	45.80	16.26	17514.6			5.7	-
236	0.900	0.05d	9.63	53.73	17.23	17506.3	284.0	355.8	5.9	
		0.00	8.83	48.11	16.48	17516.5			6.0	-
237	0.900	0.05d	8.36	54.60	16.85	17508.7	286.0	358.8	6.0	
		0.00	7.82	49.18	16.46	17516.1			6.0	-
238	0.900	0.05d	6.84	54.06	16.13	17515.9	279.9	349.6	5.8	
		0.00	6.72	49.11	16.07	17507.0			5.9	-
239	0.900	0.05d	5.84	52.84	16.20	17507.9	266.8	332.0	5.5	
		0.00	5.05	47.62	15.05	17505.4			5.6	-
240	0.900	0.00	5.68	48.69	15.72	17065.6	268.8	332.1	5.5	
		0.00	2.70	43.01	11.85	17505.7			5.6	-
241	0.900	0.00	1.81	41.36	12.31	17506.1	215.2	267.5	1b	
242	0.900	0.00	1.35	48.75	13.43	17506.5	132.4	165.3	1a	
243	0.900	0.06d	2.51	61.45	14.71	17513.9	290.5	363.4	6.1	
		0.06d	0.28	55.35	11.88	17515.8			6.1	-
244	0.900	0.06d	0.00	64.51	8.97	17393.8	455.0	562.2	9.4	
		0.06d	0.00	55.31	7.27	17509.7			9.5	-
245	0.900	0.06d	5.26	60.90	5.79	16610.2	522.9	643.3	10.7	
		0.05d	4.80	50.76	5.33	17515.1			10.8	-
246	0.900	0.06d	5.98	58.73	7.45	16646.3	557.1	686.0	11.4	
		0.00	5.66	48.02	7.10	17509.0			11.5	-
247	0.900	0.06d	7.37	58.58	8.46	16517.4	605.5	745.2	12.9	
		0.00	6.94	46.84	8.03	17511.6			13.1	-
248	0.900	0.06d	8.18	58.55	9.09	16328.7	659.9	811.7	15.2	
		0.00	7.77	45.72	8.69	17508.2			15.6	-
249	0.900	0.06d	8.75	57.97	9.48	15987.4	713.9	876.9	17.8	
		0.00	8.38	44.01	9.12	17506.4			18.3	-
250	0.900	0.06d	9.11	56.45	9.68	15438.7	765.1	937.9	20.4	
		0.00	8.80	41.38	9.39	17505.0			20.9	-
251	0.900	0.55d	9.37	53.94	9.85	14600.4	813.6	994.4	22.9	
		0.00	9.09	37.73	9.58	17515.7			23.5	-
252	0.900	5.55	9.50	50.19	10.01	13392.8	854.7	1041.7	25.1	
		0.00	9.23	32.93	9.75	17040.8			25.7	-
253	0.900	13.22	9.72	44.53	9.08	11275.0	886.6	1081.2	27.1	
		0.00	9.58	26.46	8.96	15853.6			27.4	-
254	0.900	23.50	9.78	40.68	7.63	8617.2	1015.5	1238.4	35.5	
		0.15	9.63	19.48	7.49	14131.0			35.5	-
255	0.900	31.74	8.06	31.74	5.47	7738.5	1112.8	1354.4	42.5	
		4.64	7.80	8.21	5.21	10305.1			41.6	-
256	0.900	17.28	4.44	0.00	2.84	12748.2	177.0	214.8	1b	
257	0.900	6.65	2.38	0.00	1.00	8502.2	19.0	22.8	1a	
258	0.900	1.46	0.85	0.00	0.18	4390.9	21.9	25.9	1a	
259	0.900	3.44	5.59	1.66	0.00	8543.7	126.4	151.5	1a	
260	0.900	14.85	16.13	32.73	16.58	14696.6	380.9	466.2	7.8	
		5.82	14.80	24.10	15.25	16796.8			7.8	-
261	0.900	19.82	16.63	28.83	15.93	13891.7	402.5	490.8	8.2	
		10.81	15.95	20.07	15.26	16070.2			8.2	-
262	0.900	26.88	17.85	23.21	14.70	12662.1	448.6	544.4	9.1	

Prog.: PL REV. 5.60
 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

Datum:97/09/25 Zeit:17:45 Seite: 193

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		16.57	16.44	12.78	13.27	15620.7			9.2	-
263	0.900	45.55	29.34	23.00	18.90	10113.3	860.4	1062.3	26.1	-
		24.48	18.35	1.51	7.65	17448.0			26.2	-
264	0.900	30.81	32.65	2.98	21.94	10217.8	740.4	914.1	19.3	-
		22.65	13.83	0.00	3.24	16253.5			19.2	-
265	0.900	14.10	8.87	0.00	2.98	13233.1	190.1	231.2	1b	-
266	0.900	15.50	8.63	0.00	2.44	13516.0	163.9	199.6	1b	-
267	0.900	33.39	32.86	0.00	18.79	10973.4	724.3	894.2	18.5	-
		25.20	14.47	0.00	0.70	16825.6			18.5	-
268	0.900	49.90	34.09	32.59	21.20	11280.9	1089.6	1345.2	41.9	-
		24.65	15.07	0.00	2.32	16853.6			41.8	-
269	0.900	32.31	14.41	20.54	9.82	9745.5	701.5	853.2	16.9	-
		16.58	13.00	4.65	8.39	14863.4			17.1	-
270	0.900	23.76	14.03	29.05	13.20	10653.4	622.1	761.3	13.4	-
		10.31	13.60	15.74	12.77	14622.2			13.4	-
271	0.900	37.98	7.81	29.58	5.59	7237.3	1041.5	1259.6	36.7	-
		14.27	5.28	0.00	3.03	12218.0			36.9	-
272	0.900	33.93	14.00	1.99	12.24	8019.7	528.6	652.6	10.9	-
		21.39	5.71	0.00	3.97	14067.4			10.7	-
273	0.900	13.08	9.33	6.91	10.88	13099.4	166.4	202.4	1b	-
274	0.900	16.28	9.58	2.38	9.14	13956.3	172.1	209.9	1b	-
275	0.550	3.32	0.93	7.92	11.73	15650.2	67.3	139.7	1a	-
276	0.550	3.66	1.84	10.10	12.77	16736.1	62.6	130.4	1a	-
277	0.550	5.06	2.43	11.02	14.23	17453.1	77.0	160.9	1a	-
278	0.550	6.89	2.23	9.73	15.39	17371.6	121.7	254.2	1b	-
279	0.550	6.49	0.61	6.29	14.70	15997.4	120.9	251.0	1b	-
280	0.550	2.08	0.00	4.46	10.16	13663.9	117.5	241.9	1a	-
281	0.550	0.32	0.16	6.37	7.15	13250.6	122.4	251.8	1b	-
282	0.550	0.00	0.69	8.20	6.45	13730.3	98.9	203.8	1a	-
283	0.550	0.00	1.01	8.75	6.96	14173.1	94.1	194.2	1a	-
284	0.550	0.48	0.96	7.45	7.27	13767.5	117.5	242.2	1a	-
285	0.550	1.14	0.00	3.23	6.80	11506.0	115.9	236.8	1a	-
286	0.550	2.20	0.00	4.81	9.81	13683.3	114.9	237.0	1a	-
287	0.550	2.97	2.06	8.88	10.08	15431.9	99.5	206.6	1a	-
288	0.550	2.49	4.01	10.37	9.08	15594.8	55.8	115.9	1a	-
289	0.550	3.26	4.79	9.40	7.76	14745.3	53.7	110.8	1a	-
290	0.550	4.71	4.87	6.55	6.03	12809.0	73.6	150.7	1a	-
291	0.550	5.08	3.54	5.49	6.45	12509.0	90.8	185.6	1a	-
292	0.550	2.53	2.39	8.64	8.55	14770.4	76.0	156.9	1a	-
293	0.550	0.60	0.39	9.81	10.19	15797.7	77.3	160.2	1a	-
294	0.550	0.00	0.00	9.03	11.07	15827.1	94.2	195.8	1a	-
295	0.550	0.00	0.00	7.24	10.44	14940.0	107.5	222.7	1a	-
296	0.550	0.00	0.00	6.80	9.40	14373.6	113.0	233.5	1a	-
297	0.550	0.00	0.00	9.32	11.31	16008.3	112.6	234.2	1a	-
298	0.550	0.00	0.00	9.96	11.93	16429.2	110.2	229.3	1a	-
299	0.550	2.22	0.00	9.30	16.97	17516.6	110.0	230.1	1a	-
300	0.550	4.07	0.17	10.00	18.44	17511.1	96.9	203.4	1a	-
301	0.550	4.45	0.63	10.40	18.04	17508.8	80.3	168.6	1a	-

Prog.: PL REV. 5.60

Datum: 97/09/25 Zeit: 17:45 Seite: 194

Autor: ** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25	h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
302	0.550	4.10	0.49	9.58	16.78	17512.4	63.0	131.8	1a
303	0.550	4.27	0.05	7.91	15.89	16915.7	64.1	133.9	1a
304	0.550	1.11	0.00	9.19	14.48	16947.4	112.0	233.6	1a
305	0.550	0.21	0.00	8.87	10.98	15741.8	106.4	220.8	1a
306	0.600	0.92	0.25	3.50	3.72	8921.8	168.4	309.6	1b
307	0.600	0.00	0.00	6.28	5.64	11957.4	151.8	282.6	1b
308	0.600	0.00	0.00	11.75	10.09	15736.8	131.6	248.8	1b
309	0.600	0.00	0.00	16.39	14.32	17509.4	87.1	166.8	1a
310	0.600	0.00	0.00	19.19	18.12	17507.7	52.8	102.3	1a
311	0.600	0.00	0.00	20.62	21.16	17507.7	26.1	51.0	1a
312	0.600	0.00	0.00	20.98	23.48	17506.6	12.0	22.5	1a
313	0.600	0.00	0.00	20.50	25.04	17505.7	16.5	32.3	1a
314	0.600	0.65	0.00	19.19	25.85	17505.3	34.2	67.1	1a
315	0.600	1.63	0.00	17.12	25.92	17505.1	53.0	103.7	1a
316	0.600	2.48	0.00	14.28	25.26	17516.6	73.2	142.2	1a
317	0.600	3.16	0.00	11.32	24.25	17512.2	61.4	118.5	1a
318	0.600	4.72	0.00	9.07	23.31	17507.2	41.4	79.2	1a
319	0.600	5.99	0.00	7.68	22.78	17504.2	20.8	39.7	1a
320	0.600	5.89	0.00	8.01	22.46	17505.6	39.3	75.0	1a
321	0.600	4.79	0.00	9.49	23.31	17508.7	44.5	85.3	1a
322	0.600	3.03	0.00	11.66	24.46	17512.8	62.8	121.2	1a
323	0.600	2.35	0.00	14.29	25.44	17516.4	74.9	145.5	1a
324	0.600	1.56	0.00	16.66	25.85	17505.1	58.7	114.6	1a
325	0.600	0.65	0.00	18.19	25.43	17505.6	46.2	90.5	1a
326	0.600	0.00	0.00	18.98	24.26	17506.3	39.4	77.2	1a
327	0.600	0.00	0.00	18.96	22.37	17507.2	41.3	80.7	1a
328	0.600	0.00	0.00	18.06	19.74	17507.5	50.8	98.6	1a
329	0.600	0.00	0.00	16.17	16.40	17515.0	68.4	131.4	1a
330	0.600	0.00	0.00	13.11	12.46	16845.1	95.5	181.3	1a
331	0.600	0.00	0.00	10.08	9.65	15057.0	134.6	253.2	1b
332	0.600	0.00	0.00	6.84	7.38	12982.0	153.0	285.5	1b
333	0.600	4.21	0.66	3.00	5.33	10103.0	166.7	306.9	1b
334	0.550	0.00	0.00	8.81	5.76	13674.6	136.9	282.1	1b
335	0.550	0.00	0.00	11.89	7.62	15565.0	144.4	300.0	1b
336	0.550	0.00	0.00	17.07	11.68	17510.8	80.9	170.4	1a
337	0.550	0.00	0.00	19.81	14.19	17506.8	43.2	89.6	1a
338	0.550	0.00	0.00	21.11	15.59	17507.1	30.2	62.7	1a
339	0.550	0.00	0.00	21.43	16.31	17507.3	35.5	75.9	1a
340	0.550	0.00	0.00	20.95	16.60	17507.5	53.0	113.2	1a
341	0.550	0.00	0.00	19.84	16.64	17507.6	67.5	144.0	1a
342	0.550	0.00	0.00	18.08	16.41	17507.8	80.1	170.3	1a
343	0.550	0.49	0.55	15.74	15.95	17516.7	92.1	195.2	1a
344	0.550	1.76	0.99	12.92	15.30	17510.3	102.3	215.4	1a
345	0.550	2.88	1.32	9.85	14.41	17138.5	108.0	225.7	1a
346	0.550	3.59	1.61	7.14	13.24	15858.8	108.6	225.8	1a
347	0.550	4.61	2.07	5.25	11.91	14645.8	110.7	229.1	1a
348	0.550	5.33	3.02	4.80	10.84	13995.9	104.1	214.8	1a
349	0.550	5.40	1.24	6.01	15.91	16249.4	80.9	168.5	1a

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 195

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
350	0.550	4.19	0.77	6.61	16.25	16560.8	93.4	194.7	1a
351	0.550	3.34	0.55	8.38	17.07	17383.4	94.3	197.2	1a
352	0.550	2.62	0.40	10.93	17.94	17510.1	95.9	202.0	1a
353	0.550	1.65	0.24	13.81	18.65	17511.6	93.3	198.0	1a
354	0.550	0.53	0.00	16.47	19.12	17507.6	85.7	182.7	1a
355	0.550	0.00	0.00	18.63	19.26	17507.8	76.0	162.7	1a
356	0.550	0.00	0.00	20.14	19.03	17507.6	64.8	139.1	1a
357	0.550	0.00	0.00	21.01	18.40	17507.5	52.7	113.1	1a
358	0.550	0.00	0.00	21.11	17.32	17507.1	41.4	88.7	1a
359	0.550	0.00	0.00	20.27	15.68	17507.3	38.2	81.5	1a
360	0.550	0.00	0.00	18.12	13.24	17515.4	58.3	123.4	1a
361	0.550	0.00	0.00	14.32	9.78	17073.6	93.1	194.5	1a
362	0.900	22.89	19.61	14.19	18.02	13032.4	244.1	296.8	4.9
		17.97	14.49	9.13	12.88	15491.3			5.0
363	0.900	20.06	18.97	24.48	17.58	13134.0	279.6	340.1	5.7
		13.08	16.23	17.59	14.82	15484.8			5.7
364	0.900	1.03	15.86	35.91	18.04	17507.8	154.0	192.6	1a
365	0.900	0.00	15.60	41.87	18.47	17506.3	118.0	148.6	1a
366	0.900	0.00	15.13	46.68	18.90	17513.7	87.5	110.7	1a
367	0.900	0.05d	14.51	50.19	19.09	17501.0	62.4	79.2	1a
368	0.900	0.05d	13.61	52.41	19.02	17501.1	47.3	58.2	1a
369	0.900	0.05d	12.31	53.42	18.68	17515.0	43.9	54.1	1a
370	0.900	0.05d	10.59	53.30	17.96	17513.2	44.5	54.7	1a
371	0.900	0.05d	8.42	51.92	16.32	17510.4	55.5	68.3	1a
372	0.900	0.00	4.84	49.52	13.57	17516.7	107.3	135.1	1a
373	0.900	4.67	16.30	28.94	16.99	17497.5	201.6	250.0	1b
374	0.900	15.14	18.38	30.28	17.79	15260.0	267.9	328.3	5.5
		8.49	16.65	23.98	16.03	16926.9			5.5
375	0.900	0.05d	5.99	53.03	11.21	17505.7	200.6	252.2	1b
376	0.900	0.05d	9.41	53.25	13.92	17516.7	147.8	186.7	1a
377	0.900	0.05d	11.45	53.53	15.59	17500.2	142.3	180.2	1a
378	0.900	0.05d	13.15	53.26	16.57	17500.8	154.3	195.7	1b
379	0.900	0.05d	14.34	52.04	17.16	17501.2	174.5	221.3	1b
380	0.900	0.00	15.18	49.70	17.48	17501.0	200.9	254.3	1b
381	0.900	0.05d	16.41	50.74	18.23	17514.4	229.3	287.6	4.8
		0.00	15.75	46.17	17.60	17514.4			4.8
382	0.900	0.00	16.66	46.46	17.88	17503.4	264.6	330.0	5.5
		0.00	16.08	41.15	17.35	17506.2			5.5
383	0.900	7.68	17.03	41.19	17.14	17499.7	297.3	368.1	6.1
		0.87	16.73	35.37	16.88	17513.0			6.2
384	0.900	11.25	17.78	36.13	17.46	16536.9	305.7	376.4	6.3
		4.27	16.94	29.50	16.63	17504.9			6.3
385	0.550	2.20	2.79	6.67	7.09	13359.7	40.9	83.8	1a
386	0.550	2.96	2.52	6.71	9.53	14385.8	42.5	87.4	1a
387	0.550	3.54	2.28	6.82	11.67	15217.7	37.0	76.3	1a
388	0.550	3.90	2.28	7.04	13.21	15813.7	32.9	68.2	1a
389	0.550	3.46	2.55	8.43	13.18	16301.7	32.3	66.9	1a
390	0.550	3.46	2.95	9.58	13.12	16672.0	40.5	84.2	1a

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 196

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
391	0.550	3.64	3.12	9.90	12.78	16674.0	49.9	103.7	1a
392	0.550	3.66	3.11	9.48	11.86	16247.3	56.5	117.2	1a
393	0.550	3.52	3.14	8.55	10.19	15347.1	59.8	123.6	1a
394	0.550	3.48	3.33	7.22	8.09	14021.1	62.4	129.0	1a
395	0.550	3.88	3.66	5.42	6.10	12302.9	69.4	142.4	1a
396	0.550	4.80	3.94	3.25	4.59	10804.7	87.5	178.3	1a
397	0.550	6.29	4.14	1.77	3.65	11726.8	109.4	222.9	1a
398	0.550	6.74	4.25	1.21	3.54	12005.3	91.3	186.2	1a
399	0.550	6.53	4.26	1.31	3.70	11907.9	79.1	161.0	1a
400	0.550	6.44	4.89	1.89	3.58	12193.8	66.1	134.5	1a
401	0.550	4.17	4.12	3.47	3.68	10547.8	42.8	86.6	1a
402	0.550	3.15	3.47	4.06	3.89	10334.3	37.1	75.4	1a
403	0.550	3.36	2.87	3.83	4.47	10553.5	71.6	145.0	1a
404	0.550	4.66	2.82	4.05	7.41	12156.9	73.2	148.9	1a
405	0.550	5.23	4.26	7.06	9.61	14561.9	68.7	141.4	1a
406	0.550	4.01	4.89	9.42	9.14	15282.0	65.7	135.7	1a
407	0.550	2.97	4.52	9.80	8.59	15213.1	42.1	86.9	1a
408	0.550	2.28	3.81	8.84	7.83	14564.0	32.6	67.1	1a
409	0.550	5.82	4.78	5.95	10.70	14519.4	59.3	122.6	1a
410	0.550	5.78	6.88	4.68	6.09	12664.9	84.5	173.3	1a
411	0.550	5.75	5.83	4.57	6.72	12271.0	93.6	191.9	1a
412	0.550	5.89	5.33	5.64	7.95	13274.9	92.9	191.3	1a
413	0.550	5.84	5.12	7.64	9.54	14764.9	92.2	191.0	1a
414	0.550	5.25	5.01	10.28	10.97	16221.8	85.5	178.1	1a
415	0.550	4.11	5.06	12.96	12.04	17388.6	70.5	147.5	1a
416	0.550	2.59	5.21	15.10	12.57	17503.9	47.8	100.5	1a
417	0.550	1.11	4.99	15.98	12.24	17510.9	47.9	99.4	1a
418	0.550	0.17	4.32	15.26	11.20	17514.6	62.6	129.8	1a
419	0.550	0.00	2.78	12.68	9.03	16336.0	112.1	233.7	1a
420	0.550	1.21	3.53	9.51	7.33	14619.6	96.2	199.2	1a
421	0.550	2.71	3.89	7.84	6.52	13540.4	100.0	206.2	1a
422	0.550	3.59	4.07	7.23	6.54	13271.0	104.3	214.8	1a
423	0.550	1.69	4.49	12.23	9.62	16398.7	67.9	141.4	1a
424	0.550	1.82	4.44	14.81	11.96	17507.0	30.0	62.7	1a
425	0.550	2.98	4.58	15.08	13.37	17502.5	33.0	69.1	1a
426	0.550	4.08	4.66	13.80	13.75	17513.1	50.4	105.4	1a
427	0.550	4.90	4.56	11.73	13.40	17429.8	62.4	130.1	1a
428	0.550	5.38	4.42	9.48	12.63	16486.8	69.9	145.7	1a
429	0.550	5.57	4.35	7.54	11.72	15504.5	71.9	149.2	1a
430	0.550	5.56	4.41	6.27	10.94	14738.3	72.1	149.2	1a
431	0.900	8.88	9.35	1.50	1.16	11925.0	110.4	133.7	1a
432	0.900	8.67	7.07	0.16	1.71	11125.5	104.9	126.8	1a
433	0.900	15.95	9.36	0.00	3.28	13820.7	166.4	202.9	1b
434	0.900	40.78	30.85	4.61	17.61	11447.2	652.6	805.6	15.0
		28.46	16.56	0.00	3.28	17508.8			15.1
435	0.900	51.41	36.28	20.13d	24.70	12178.6	846.2	1044.7	25.3
		32.37	22.35	0.00	9.57	17506.0			26.0
436	0.900	31.91	21.34	23.58	17.18	15833.2	427.1	524.5	8.7

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 197

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25		h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		23.02	21.04	15.36	18.13	17507.4			9.3	-
437	0.900	22.35	21.04	33.49	19.97	16248.1	377.6	464.6	7.7	
		14.19	20.63	25.61	19.59	17511.6			7.8	-
438	0.900	14.55	20.10	41.05	20.70	17501.6	366.1	454.1	7.6	
		6.60	19.88	33.94	20.55	17503.8			7.6	-
439	0.900	8.63	18.64	48.21	20.97	17514.9	359.1	449.4	7.5	
		0.00	18.52	41.44	20.90	17505.8			7.6	-
440	0.900	0.05d	16.55	54.97	20.29	17501.3	369.4	464.8	7.7	
		0.00	16.37	48.21	20.15	17507.5			7.8	-
441	0.900	0.06d	13.16	62.68	18.82	17498.0	422.0	531.2	8.9	
		0.05d	12.25	54.60	17.96	17500.7			8.9	-
442	0.900	0.06d	13.79	55.74	23.03	17503.1	223.5	281.7	4.7	
		0.05d	10.96	51.05	20.35	17506.9			4.7	-
443	0.900	0.00	15.57	46.88	21.74	17505.2	177.7	225.8	1b	
444	0.900	0.00	18.22	41.31	22.15	17512.8	172.4	218.1	1b	
445	0.900	6.93	19.81	34.31	21.36	17507.4	185.5	232.7	1b	
446	0.900	14.04	20.68	26.02	19.78	17500.7	209.4	259.8	1b	
447	0.900	28.42	23.87	22.83	20.02	15483.8	277.7	340.7	5.7	
		21.65	20.96	15.94	17.09	17440.7			5.7	-
448	0.900	31.21	24.69	9.66	20.20	15768.1	268.7	329.9	5.5	
		26.98	18.37	5.26	14.62	17513.2			5.7	-
449	0.900	25.22	18.89	0.00	13.36	14435.2	235.0	286.7	4.8	
		22.89	12.97	0.00	7.32	16112.8			4.8	-
450	0.900	15.39	10.83	0.00	3.23	14066.3	206.6	252.1	1b	
451	0.550	2.77	3.15	8.49	9.79	15180.2	34.4	71.0	1a	
452	0.550	3.16	2.75	8.29	11.54	15724.6	36.3	75.1	1a	
453	0.550	3.22	3.35	9.19	11.11	15899.5	38.0	78.7	1a	
454	0.550	4.00	3.16	7.38	9.68	14716.1	62.1	128.0	1a	
455	0.550	3.58	2.95	5.96	7.45	13199.0	60.5	123.8	1a	
456	0.550	3.40	3.29	4.94	5.23	11615.1	52.9	107.8	1a	
457	0.550	4.08	3.83	3.72	4.13	10312.8	58.6	119.4	1a	
458	0.550	5.31	4.22	2.58	3.82	11251.3	76.7	155.1	1a	
459	0.550	3.97	3.54	8.73	10.82	15635.2	59.0	122.0	1a	
460	0.550	3.52	3.92	9.48	10.44	15769.2	47.3	97.9	1a	
461	0.900	7.43	4.13	0.00	1.68	9592.4	101.8	122.3	1a	
462	0.600	5.05	0.60	2.66	4.37	8425.8	167.7	308.5	1b	
463	0.550	1.11	4.55	12.45	9.16	16309.3	73.6	153.3	1a	
464	0.900	2.85	3.40	0.74	0.32	7155.8	75.6	90.3	1a	
465	0.900	2.58	3.02	0.40	0.06	6782.4	62.9	75.0	1a	
466	0.900	8.03	6.96	0.94	2.09	10874.9	107.4	129.7	1a	
467	0.900	6.47	5.52	0.00	0.66	9783.4	102.6	123.4	1a	

Prog.: PL REV. 5.60

Datum: 97/09/25 Zeit: 17:45 Seite: 198

Autor: ** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

BEMESSUNG NACH DIN 1045

Kraefte von uelag

Ergebnisdatei bew

Sicherheitsfaktor..... 1.75

B 25	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.300	7.450	0.300	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
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501	0.00	12.17	203.1	1.37	0.59	1	431.6	0.00	1.37
502	0.00	13.05	176.6	1.18	0.50	1	390.4	0.00	1.18
503	0.00	14.12	126.1	0.83	0.36	1	344.2	0.00	0.83
504	0.00	14.96	57.8	0.29	0.15	1	346.1	0.00	0.29
505	0.00	15.11	9.8	0.05	0.02	1	359.3	0.00	0.05
506	0.00	14.98	45.1	0.23	0.06	1	340.5	0.00	0.23
507	0.00	0.12	81.6	0.61	0.27	1	42.8	0.00	0.61
508	0.00	1.90	203.7	1.49	0.69	1	199.4	0.00	1.49
509	0.00	4.75	266.8	1.92	0.91	1	251.0	0.00	1.92
510	0.00	7.88	266.7	1.89	0.91	1	253.2	0.00	1.89
511	0.00	14.58	70.2	0.48	0.17	1	336.7	0.00	0.48
512	0.00	13.72	116.7	0.81	0.34	1	352.0	0.00	0.81
513	0.00	12.44	164.0	1.14	0.52	1	365.5	0.00	1.14
514	0.00	10.67	217.9	1.53	0.73	1	386.7	0.00	1.53

B 25	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.250	0.350	0.250	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
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515	0.00	0.64	128.8	0.76	0.47	1	144.3	0.00	0.76
516	0.00	1.77	105.2	0.44	0.03	1	463.9	0.00	0.42
517	0.00	2.22	371.2	3.87	0.71	3	670.3	0.00	3.84
518	0.00	1.80	642.2	6.69	1.40	3	845.7	0.00	6.66
519	0.00	0.37	918.1	9.56	2.10	3	1011.6	0.00	9.53
520	2.87	0.00	1494.9	15.57	3.44	3	932.9	0.00	15.54u
521	2.43	0.00	958.7	10.25	2.02	3	146.0	0.00	10.25
522	0.00	1.21	170.4	1.74	0.71	1	95.7	0.00	1.74
523	0.00	2.85	37.5	0.24	0.01	1	196.0	0.00	0.24
524	0.00	2.91	295.9	1.23	0.79	1	285.6	0.00	1.23
525	0.00	1.46	596.8	6.22	1.51	3	360.4	0.00	6.22
526	2.24	0.00	657.1	11.77	2.74	3	275.1	0.00	11.77
527	2.50	0.00	528.3	13.41	2.20	3	137.9	0.00	13.39
528	0.00	0.67	242.0	7.79	1.01	3	188.6	0.00	7.76
529	0.00	1.85	94.0	5.31	0.39	3	134.7	0.00	5.29
530	0.00	1.96	36.9	3.27	0.15	3	86.5	0.00	3.25
531	0.00	1.44	129.7	1.99	0.54	3	37.7	0.00	1.97
532	1.35	0.31	299.5	1.25	0.08	1	170.5	0.00	1.25

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 199

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 25	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.300	7.450	0.300	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
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533	0.00	1.79	390.2	2.50	1.29	1	325.7	0.00	2.50
534	0.00	5.08	339.8	5.59	1.05	3	450.4	0.00	5.59
535	0.00	8.01	295.6	4.94	0.89	3	486.2	0.00	4.94
536	0.00	10.56	245.8	1.66	0.72	1	476.6	0.00	1.66

B 25	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.250	0.350	0.250	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
------	------	------	-------	------	--------	-----	--------	-------	-------

537	3.11	0.00	357.0	6.58	1.49	3	140.0	0.00	6.58
538	1.33	0.21	178.2	4.72	0.74	3	14.4	0.00	4.72
539	0.32	1.05	59.4	1.47	0.25	1	71.6	0.00	1.47
540	0.00	1.19	113.2	0.96	0.47	1	121.3	0.00	0.96
541	0.00	0.38	317.3	1.32	0.40	1	186.9	0.00	1.32
542	2.06	0.00	737.2	7.68	0.61	3	98.8	0.00	7.68
543	1.81	0.00	761.6	11.38	3.17	3	467.9	0.00	11.35
544	0.00	1.16	492.0	7.57	2.05	3	481.6	0.00	7.55
545	0.00	2.30	321.7	5.11	1.34	3	378.3	0.00	5.09
546	0.00	2.57	151.0	2.70	0.63	3	271.3	0.00	2.68
547	0.00	2.09	58.1	0.34	0.24	1	134.5	0.00	0.34
548	0.00	0.82	344.8	1.44	0.22	1	31.3	0.00	1.44

+ ... Betondruckspannung aus Biegung ueberschritten !

* ... Wechselmoment - Summe : Betonspannung aus Biegung und Bewehrungsaussteifung groesser als zulaessig !

x ... Sicherheit gegen Druckbruch nicht eingehalten !

- ... Horizontalkomponente der Querkraft bei der Biegebemessung nicht beruecksichtigt !

d ... Druckbewehrung

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 200

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

MAX-MIN WERTE AUS DER BEMESSUNG - PLATTE

=====

BEMESSUNGSDATEI	max Fe1o	max Fe2o	max Fe1u	max Fe2u
bew	54.88	36.28	78.26	25.92
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	206	435	213	315
	min Fe1o	min Fe2o	min Fe1u	min Fe2u
	0.00	0.00	0.00	0.00
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	9	23	56	199
	max Q	max Tauq	max Feq	max Sigb
	1178.1	1454.4	49.0	17517.2
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	206	206	206	175
	min Q	min Tauq	min Feq	min Sigb
	12.0	22.2	0.0	4108.8
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	312	202	1	12

IBE=1 ... Mindestbewehrung fuer Schub

IBE=2 ... Verminderte Schubdeckung

IBE=3 ... Volle Schubdeckung

IBE=4 ... Unzullaessig

"u" ... Unzullaessig - Schub- bzw. Torsionsspannung ueberschritten

Prog.: PL REV. 5.60

Datum:97/09/25 Zeit:17:45 Seite: 201

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

MAX-MIN WERTE AUS DER BEMESSUNG - BALKEN

=====

BEMESSUNGSDATEI	max Feo	max Feu	max Feq	max Femt	max Feges
bew	3.11	15.11	15.57	0.00	15.54
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	537	505	520	501	520
	min Feo	min Feu	min Feq	min Femt	min Feges
	0.00	0.00	0.05	0.00	0.05
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	501	520	505	501	505
	max Tauq	max Taumt			
	1494.9	1011.6			
	IEL(Tauq)	IEL(Taumt)			
	520	519			
	min Tauq	min Taumt			
	9.8	14.4			
	IEL(Tauq)	IEL(Taumt)			
	505	538			

CODE=1a ... Mind. Haelfte der Feldbew. bis zu Auflagern durchziehen!

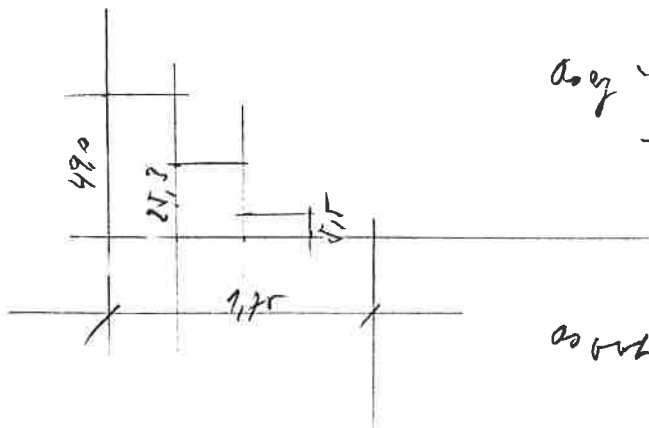
CODE=1b ... Die gesamte Feldbew. bis zu Auflagern durchziehen!

Biegebewehrung:

siehe nachfolgende Seite.

Schraubewehrung

max. Bereich:



$$a_{\text{Bey}} = \frac{1}{4} \cdot 1,75 (49,0 + 25,3 + 5,5) = 34,9 \text{ cm/m}$$

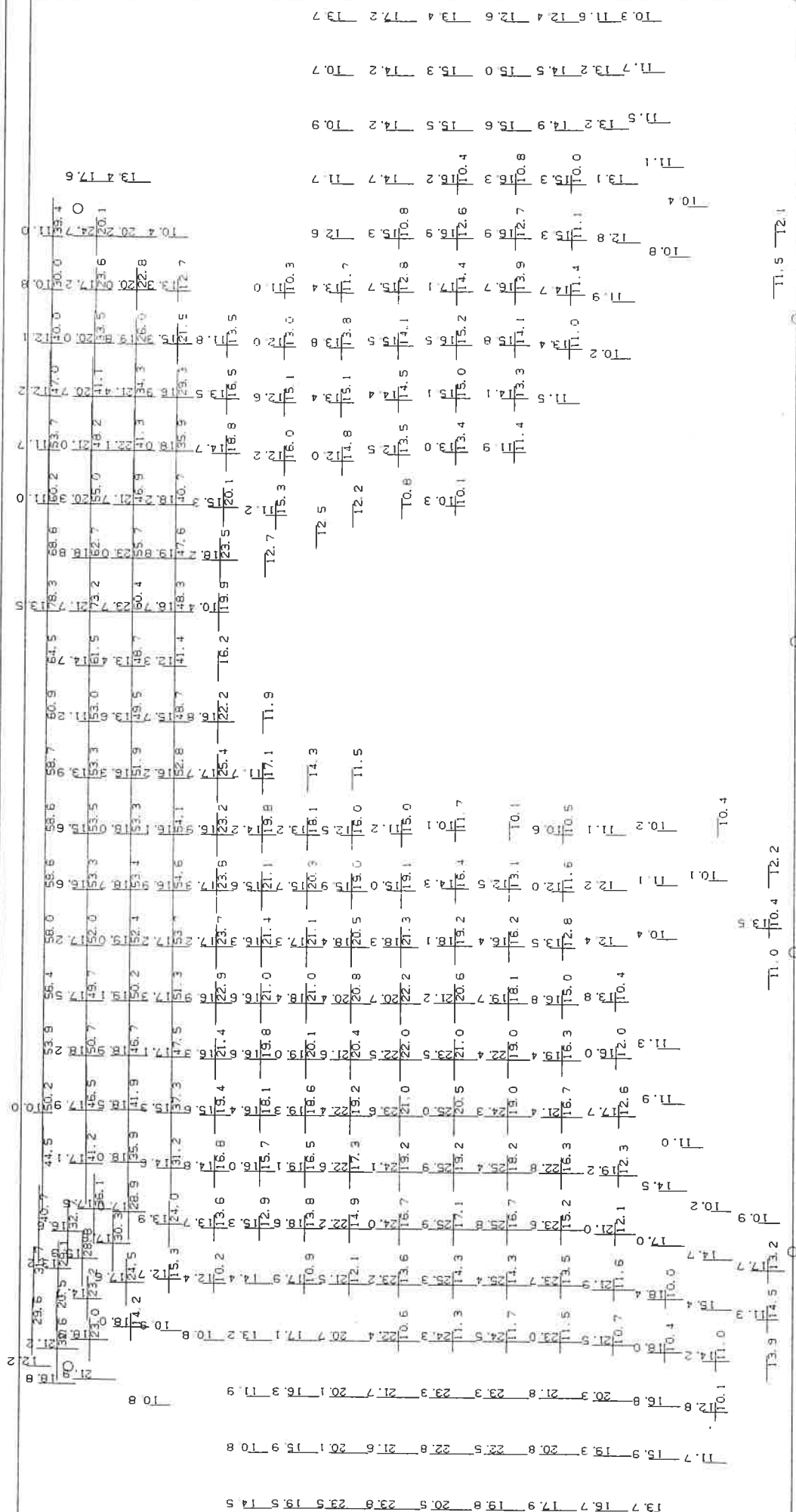
$$a_{\text{Sch}} = \phi 14/20, n=4$$

$$= 4 \cdot 7,54 \cdot \frac{1}{0,2} = 30,8 \text{ cm/m}$$

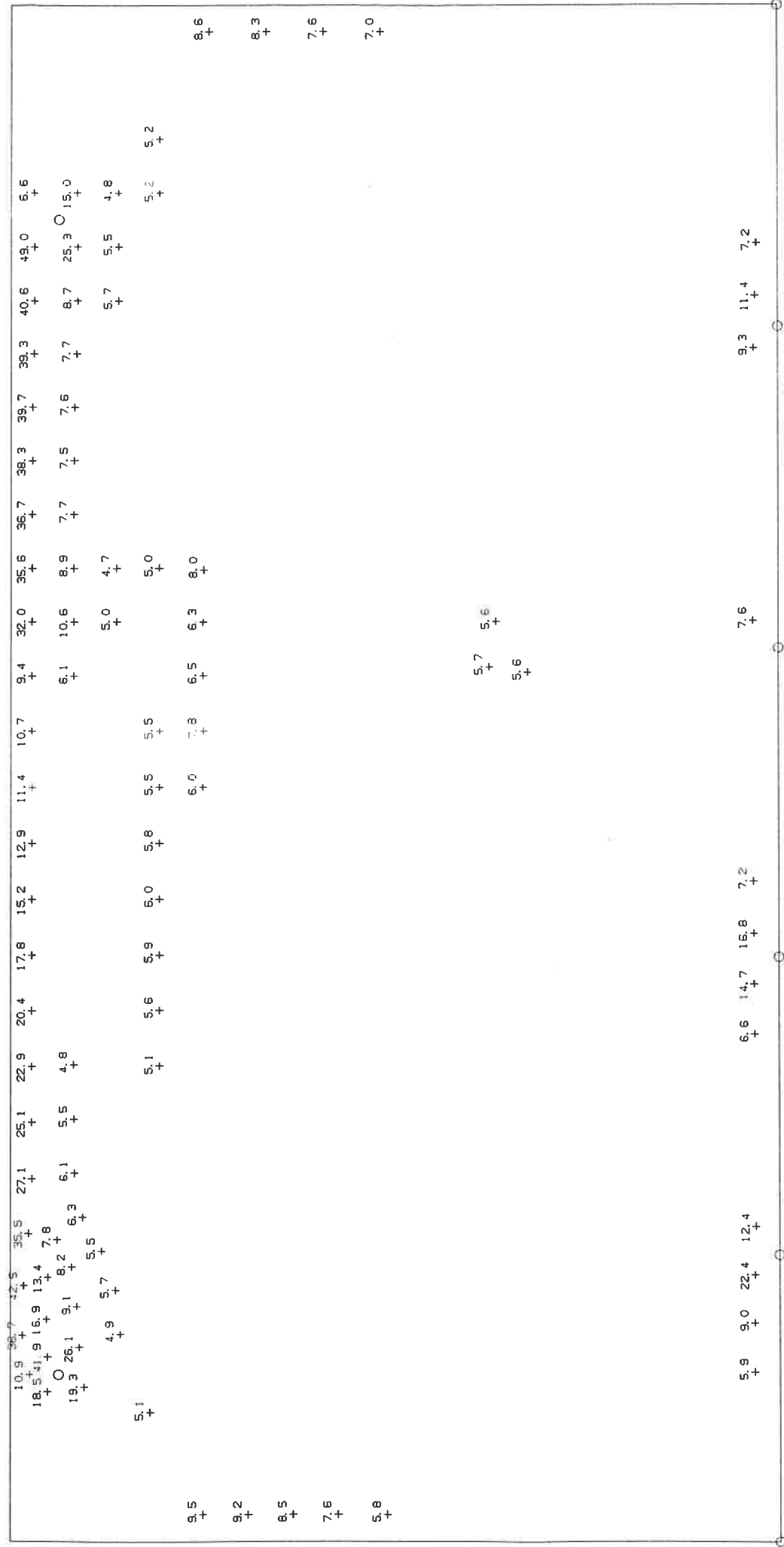
+ Aufbiegung $\phi 28/40$



0.00	50.00	100.00	150.00	200.00	250.00
------	-------	--------	--------	--------	--------



1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	92.6	94.0	95.4	96.8	98.2	99.6	100.0
1.0	2.2	3.6	4.7	5.9	7.2	8.6	10.0	11.4	12.8	14.2	15.6	17.0	18.4	19.8	21.2	22.6	24.0	25.4	26.8	28.2	29.6	31.0	32.4	33.8	35.2	36.6	38.0	39.4	40.8	42.2	43.6	45.0	46.4	47.8	49.2	50.6	52.0	53.4	54.8	56.2	57.6	59.0	60.4	61.8	63.2	64.6	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6	87.0	88.4	89.8	91.2	9						



PROJEKT bv sko energo trafo
 PLOT 6 schubbewehrung
 MASZSTAB - 1 : 50.00

1,4) Randträger

Berechnung u. Bemessung siehe Plattenberechnung.

Brügefugbew.

untere Bewehrung in d. Platte

obere Bewehrung

$$\sigma f A_{s, \max} = 18,8 + 2,9 = 21,7 \text{ cm}^2$$

$$\text{bzw. } A_{s, \min} = 4 \cdot \pi \cdot 25^2 \cdot (20,0)$$

Schubbewehrung:

$$a_s = \phi 10/20 \dots 3,95 \text{ cm/l}$$

im Auflagerbereich

$$\phi 10/10 \dots 7,9 \text{ cm/l}$$

(1m Restlänge der Stütze)

1,5) Wandartige Träger

Brügefugbewehrung:

siehe Plattenberechnung.

Schubbewehrung:

$$\text{mit } a_s = 1,9 \text{ cm/l}$$

— Aufhängelast:

Mängellast:

El 166

El 177

$$a \approx q_{li} + q_{pe}$$

$$q_{li} = 188,8$$

$$q_{pe} = 181,5$$

$$\left. \begin{array}{l} q_{li} = 188,8 \\ q_{pe} = 181,5 \end{array} \right\} q = 370,3 \text{ kN/m}$$

$$a_0 = \frac{1,75}{42} \cdot 370,3$$

$$15,4 \text{ cm/m}$$

$$\Sigma a_{ef} =$$

$$17,3 \text{ cm/m}$$

— waagrecht Belastung (Wind)

$$W \approx 1,6 \cdot 0,6$$

~

$$1,0 \text{ kN/m}^2$$

$$max\ m_u = \frac{1}{2} \cdot 8,0^2 \cdot 1,0 = 32,0 \text{ kNm/m}$$

$$n_u = 8,0 \cdot 7,5 = 60,0 \text{ kN/m}$$

$$a_{ef} = 6,17 \text{ cm/m}$$

auf beiden
Seiten.

$$B/\Sigma a_{ef} = \frac{1}{2} \cdot 17,3 + 6,17 = 14,8 \text{ cm/m}$$

$$nach a_0 = \phi 20/20$$

$$15,7 \text{ cm/m}$$

1,6) Gründung

1,6,1) Stützen 30/70, $H = 4,0 \text{ m}$ BW/ST 42

Auflast von der Grundplatte:

$$\text{max } F = 1347 \text{ kN}$$

$$G_4 = 0,3 \cdot 0,7 \cdot 4,0 \cdot 25,0 = 21 \text{ kN}$$

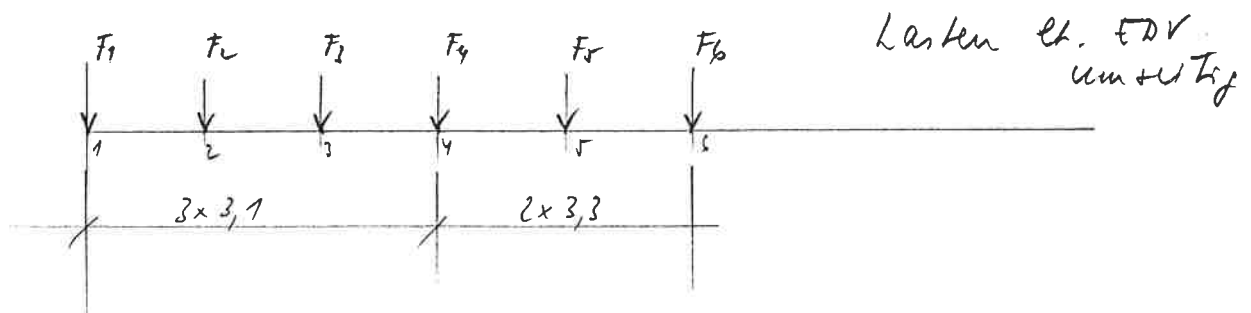
$$\Sigma F = 1347 + 21 = 1368 \text{ kN}$$

Knicklänge $l_k \sim H = 4,0 \text{ m}$

Beurteilung: nächste Stufe

1,6,2) Streifenfundament

Übersicht:



F_1	$47 + 21$	$=$	68	kN
F_2	$592 + 21$	$=$	613	kN
F_3	$591 + 21$	$=$	612	kN
F_4	$1347 + 21$	$=$	1368	kN
F_5	$445 + 21$	$=$	466	kN
F_6	$91 + 21$	$=$	112	kN

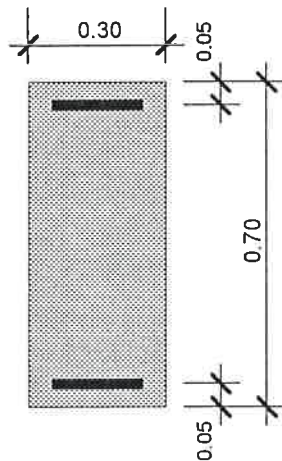
BETONBEMESSUNG mit ConDim™ V 3.1

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Position: 1		Bemessungsschnittgrößen:	Gebrauchsschnittgrößen:
Norm: DIN 1045		$M_d = 0.00 \text{ kNm}$	$M = 0.00 \text{ kNm}$
Beton: B25	Druck negativ !	$N_d = -2872.80 \text{ kN}$	$N = -1368.00 \text{ kN}$
Bewehrung: BSt 420	Lastsicherheit: $\gamma_f = 2.10$	$Q_d = 0.00 \text{ kN}$	$Q = 0.00 \text{ kN}$
		$T_d = 0.00 \text{ kNm}$	$T = 0.00 \text{ kNm}$

Querschnitt Maße in [m]

min $A_{s_o} = 8.40 \text{ cm}^2$



min $A_{s_u} = 8.40 \text{ cm}^2$

per A_s : $\phi 20$ 25, 1 cm

Querschnittswerte

E-Modul Beton:	$E_c = 30000 \text{ MN/m}^2$
Fläche Betonquerschnitt:	$A_c = 0.2100 \text{ m}^2$
Trägheitsmoment Betonquerschnitt:	$I_c = 0.008575 \text{ m}^4$
Schwerpunktsabstand Betonquerschnitt unten:	$y_{su} = 0.350 \text{ m}$

Bemessung für Biegung und Längskraft

Bewehrung:	$A_{s_u} = 0.00 \text{ cm}^2$	$A_{s_o} = 0.00 \text{ cm}^2$
Mindestbewehrung:	min $A_{s_u} = 8.40 \text{ cm}^2$	min $A_{s_o} = 8.40 \text{ cm}^2$

Stabilitätsberechnung: Druckglieder mit mäßiger Schlankheit nach DIN1045 / 17.4.3

Knicklänge:	$L_k = 4.00 \text{ m}$	Ausmittmaß:	$e/d = 0.000$
Schlankheit:	$\lambda_{rel} = 20$	Knicksicherheitsnachweis nicht erforderlich	

bv sko energo trafo

	ELEM	NOD	LC/SUPER		A	MY-GL	MX-GL
F_1	1	1	uelag	MAX A	-27.46	0.00	0.00
	1	1	uelag	MIN A	-46.74	0.00	0.00
	1	1	uelag	MAX M-Y	-30.05	0.00	0.00
	1	1	uelag	MIN M-Y	-30.05	0.00	0.00
	1	1	uelag	MAX M-X	-30.05	0.00	0.00
	1	1	uelag	MIN M-X	-30.05	0.00	0.00
F_2	6	7	uelag	MAX A	-327.97	0.00	0.00
	6	7	uelag	MIN A	-592.05	0.00	0.00
	6	7	uelag	MAX M-Y	-592.05	0.00	0.00
	6	7	uelag	MIN M-Y	-592.05	0.00	0.00
	6	7	uelag	MAX M-X	-592.05	0.00	0.00
	6	7	uelag	MIN M-X	-592.05	0.00	0.00
F_3	12	13	uelag	MAX A	-297.43	0.00	0.00
	12	13	uelag	MIN A	-590.92	0.00	0.00
	12	13	uelag	MAX M-Y	-566.20	0.00	0.00
	12	13	uelag	MIN M-Y	-566.20	0.00	0.00
	12	13	uelag	MAX M-X	-566.20	0.00	0.00
	12	13	uelag	MIN M-X	-566.20	0.00	0.00
F_4	18	19	uelag	MAX A	-790.32	0.00	0.00
	18	19	uelag	MIN A	-1346.93	0.00	0.00
	18	19	uelag	MAX M-Y	-1346.93	0.00	0.00
	18	19	uelag	MIN M-Y	-1346.93	0.00	0.00
	18	19	uelag	MAX M-X	-1346.93	0.00	0.00
	18	19	uelag	MIN M-X	-1346.93	0.00	0.00
F_5	39	43	uelag	MAX A	-5.40	0.00	0.00
	39	43	uelag	MIN A	-90.90	0.00	0.00
	39	43	uelag	MAX M-Y	-44.87	0.00	0.00
	39	43	uelag	MIN M-Y	-44.87	0.00	0.00
	39	43	uelag	MAX M-X	-44.87	0.00	0.00
	39	43	uelag	MIN M-X	-44.87	0.00	0.00
F_6	65	68	uelag	MAX A	-240.10	0.00	0.00
	65	68	uelag	MIN A	-444.62	0.00	0.00
	65	68	uelag	MAX M-Y	-393.94	0.00	0.00
	65	68	uelag	MIN M-Y	-393.94	0.00	0.00
	65	68	uelag	MAX M-X	-393.94	0.00	0.00
	65	68	uelag	MIN M-X	-393.94	0.00	0.00
F_7	267	189	uelag	MAX A	-656.45	0.00	0.00
	267	189	uelag	MIN A	-1173.53	0.00	0.00
	267	189	uelag	MAX M-Y	-1173.53	0.00	0.00
	267	189	uelag	MIN M-Y	-1173.53	0.00	0.00
	267	189	uelag	MAX M-X	-1173.53	0.00	0.00
	267	189	uelag	MIN M-X	-1173.53	0.00	0.00
	205	363	uelag	MAX A	-768.71	0.00	0.00

Prog.: PL REV. 5.60
Autor:** TDV-Graz-AUSTRIA **
Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO**

39
Datum:97/09/25 Zeit:17:48 Seite: 203

bv sko energo trafo

ELEM	NOD	LC/SUPER		A	MY-GL	MX-GL
205	363	uelag	MIN A	-1238.40	0.00	0.00
205	363	uelag	MAX M-Y	-1238.40	0.00	0.00
Fp 205	363	uelag	MIN M-Y	-1238.40	0.00	0.00
205	363	uelag	MAX M-X	-1238.40	0.00	0.00
205	363	uelag	MIN M-X	-1238.40	0.00	0.00

Stat. System:

El. geb. Balken: 80/60 $F = 0,0144$
 Bettungsziffer $C = 80000 \text{ KN/m}^3$

$$L = \sqrt[4]{\frac{4 \cdot 3 \cdot 10^7 \cdot 0,0144}{80000 \cdot 0,8}} = 2,3 \text{ m}$$

$$\lambda = \frac{L}{l} = \frac{3,1}{2,3} = 1,35$$

(a) Mehrere Lasten $F = 610 \text{ KN}$

$$m_y = 0,12 \cdot 610 \cdot 2,3 = 168 \text{ KNm}$$

(b) zusätzl. mittl. Last $F = 1368$
 $\underline{\quad 610 \quad}$
 758 KN

$$m_y = 0,17 \cdot 758 \cdot 3,1 = 399 \text{ KNm}$$

$$\max m_y = 567 \text{ KNm}$$

$$\max q_{\text{el}} = \frac{1}{l} \cdot 1368 = 684 \text{ KN}$$

Bemessung: B 25 / B 17 420

siehe folgendes Heft.

BETONBEMESSUNG mit ConDim™ V 3.1

41

Position: 2		Bemessungsschnittgrößen:	Gebrauchsschnittgrößen:
Norm: DIN 1045		M _d = 992.25 kNm	M = 567.00 kNm
Beton: B25	Druck negativ !	N _d = 0.00 kN	N = 0.00 kN
Bewehrung: BSt 420	Lastsicherheit: $\gamma_f = 1.75$	Q _d = 1197.00 kN	Q = 684.00 kN
		T _d = 0.00 kNm	T = 0.00 kNm

Querschnitt Maße in [m]

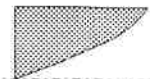
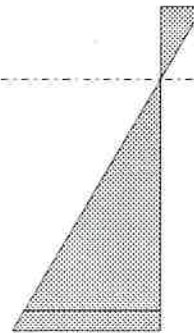
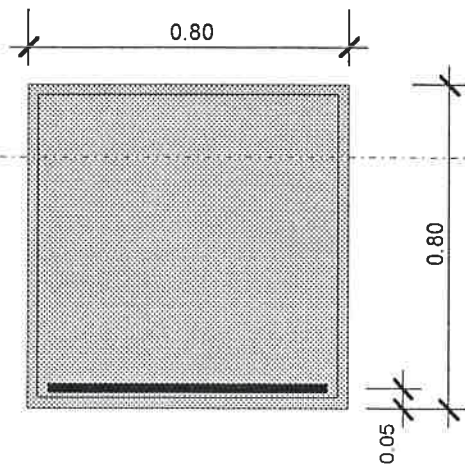
as_{bü_Q} = 14.42 cm²/m+Seite

Dehnungen

eps_o = -1.57 ‰

Betonspannungen

sig_{bo} = -16.67 MN/m²



As_u = 34.49 cm²

eps_{su} = 5.00 ‰

eps_u = 5.44 ‰

Zulage 5 & 22

As = 34,49 cm²

Querschnittswerte

E-Modul Beton:	E _c = 30000 MN/m ²
Fläche Betonquerschnitt:	A _c = 0.6400 m ²
Trägheitsmoment Betonquerschnitt:	I _c = 0.034133 m ⁴
Schwerpunktsabstand Betonquerschnitt unten:	y _{su} = 0.400 m

Bemessung für Biegung und Längskraft

Bewehrung:	As _u = 34.49 cm ²	
Mindestbewehrung:	minAs _u = 14.42 cm ²	
Maximalbewehrung:	maxAs _u = 288.00 cm ²	
Stahldehnung:	eps _{su} = 5.00 ‰	
Randdehnung:	eps _u = 5.44 ‰	eps _o = -1.57 ‰

Bemessung für Querkraft und Torsion

Querkraftbemessung nach DIN1045/17.5 für Schubereich 2 mit verminderter Schubdeckung

innerer Hebelsarm:	z = 0.685 m
Schubbewehrung je Seite (zweischnittig):	as _{bü_Q} = 14.42 cm ² /m+Seite
Versatzmaß:	a _v = 0.49 m
maximaler Bügelabstand:	s _{max} = 0.25 m

Zul. 16/20
mit As = 34,49 cm²

BETONBEMESSUNG mit ConDim™ V 3.1

42

Position:	2 m1	Bemessungsschnittgrößen:	Gebrauchsschnittgrößen:
Norm:	DIN 1045	M _d = 294.00 kNm	M = 168.00 kNm
Beton:	B25	N _d = 0.00 kN	N = 0.00 kN
Bewehrung:	BSt 420	Q _d = 535.50 kN	Q = 306.00 kN
	Lastsicherheit: $\gamma_f = 1.75$	T _d = 0.00 kNm	T = 0.00 kNm

Querschnitt Maße in [m]

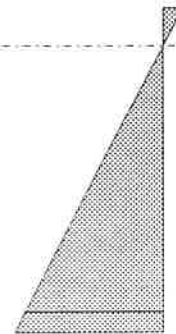
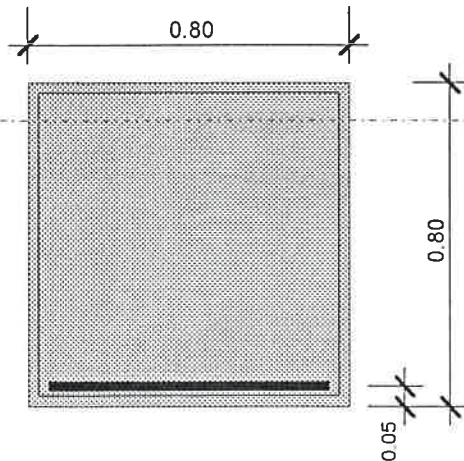
as_{bü_Q} = 3.55 cm²/m+Seite

Dehnungen

eps_o = -0.71 ‰

Betonspannungen

sig_{bo} = -10.22 MN/m²



min As_u = 14.42 cm²

eps_{su} = 5.00 ‰

eps_u = 5.38 ‰

nach Ag = 5 p 20
15,7 cm

Querschnittswerte

E-Modul Beton:	E _c = 30000 MN/m ²
Fläche Betonquerschnitt:	A _c = 0.6400 m ²
Trägheitsmoment Betonquerschnitt:	I _c = 0.034133 m ⁴
Schwerpunktsabstand Betonquerschnitt unten:	y _{su} = 0.400 m

Bemessung für Biegung und Längskraft

Bewehrung:	As _u = 9.74 cm ²	
Mindestbewehrung:	minAs _u = 14.42 cm ²	
Maximalbewehrung:	maxAs _u = 288.00 cm ²	
Stahldehnung:	eps _{su} = 5.00 ‰	
Randdehnung:	eps _u = 5.38 ‰	eps _o = -0.71 ‰

Bemessung für Querkraft und Torsion

Querkraftbemessung nach DIN1045/17.5 für Schubereich 1 mit konstruktiver Schubdeckung

innerer Hebelsarm:	z = 0.718 m
Shubbewehrung je Seite (zweisschnittig):	as _{bü_Q} = 3.55 cm ² /m+Seite
Versatzmaß:	a _v = 0.36 m
maximaler Bügelabstand:	s _{max} = 0.30 m

Bü
as = 3 p 20
40 cm

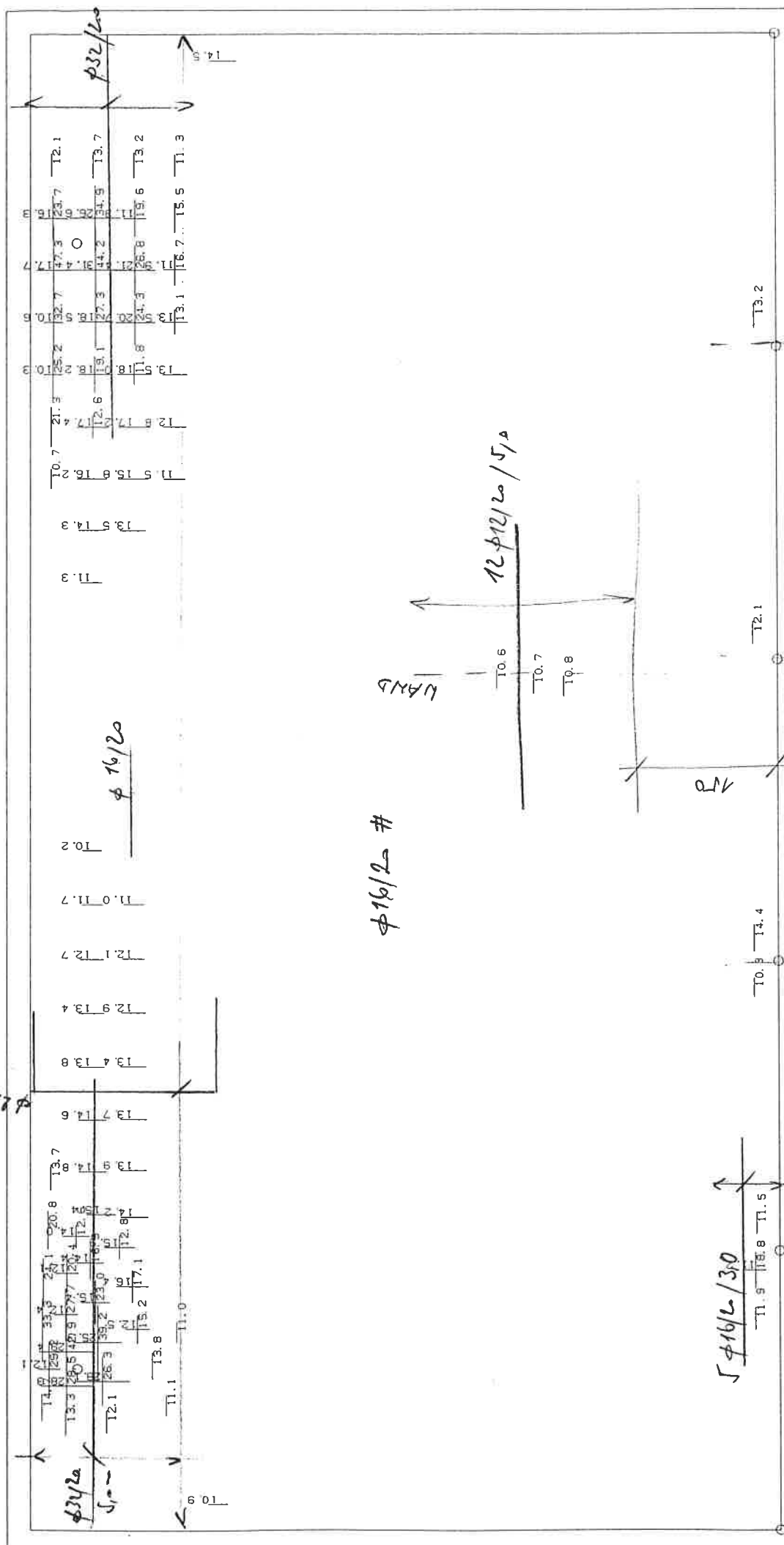
→ max Berstendruck:

$$(a) \quad \sigma = 0,75 \cdot \frac{610}{2,3 \cdot 0,8} = 248 \text{ kg/cm}^2$$

$$(b) \quad \sigma = 758 \cdot \frac{1}{2,3 \cdot 0,8} = 306 \text{ kg/cm}^2$$

$$\sigma_{\text{max}} = 554 \text{ kg/cm}^2$$

Injizierter Bereich $\sigma_{\text{zul}} > 550 \text{ kg/cm}^2$



PROJEKT bv sko energo trafo
 PLOT 3 bew oben
 MASZSTAB - 1 : 50.00

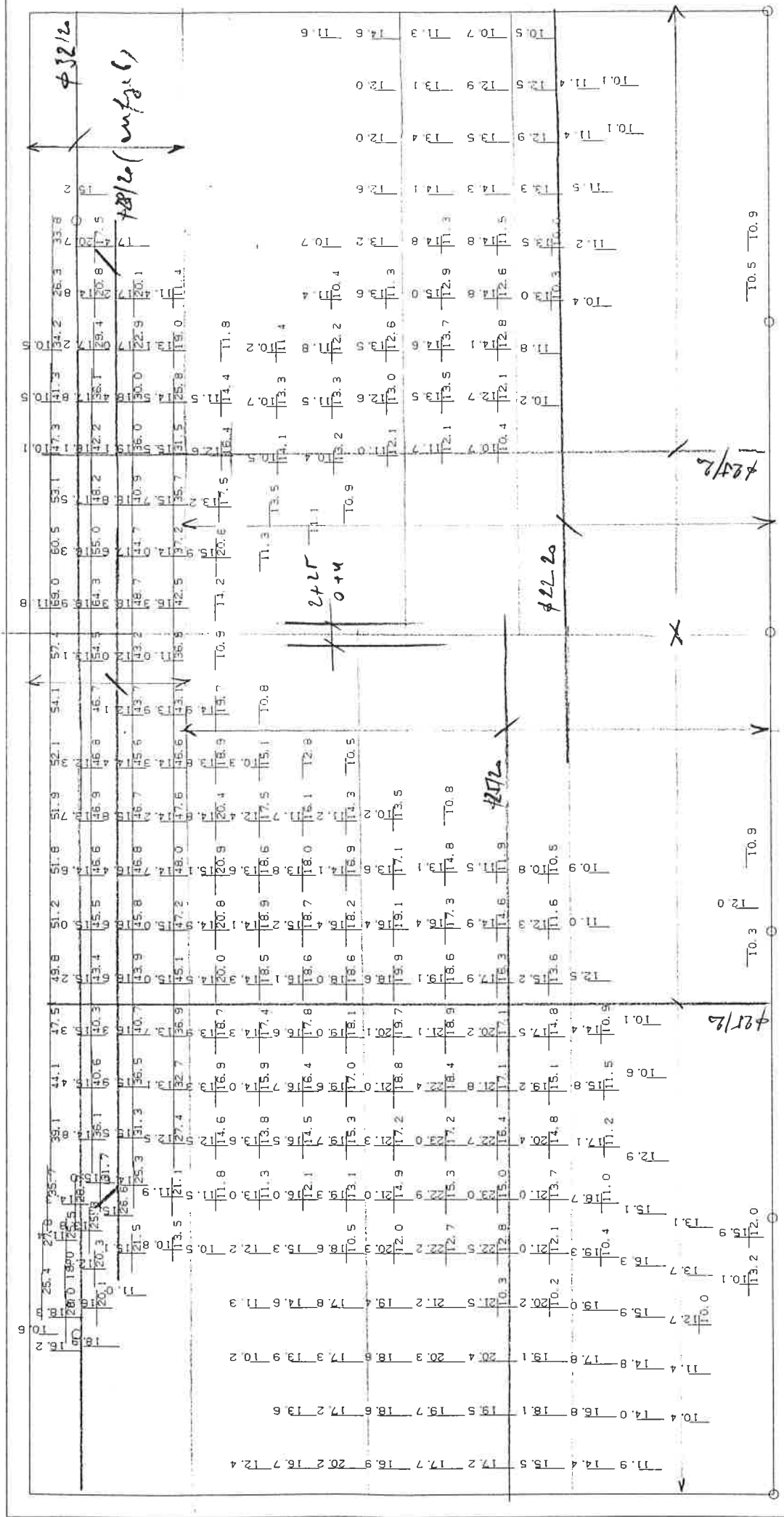
0.00 50.00 100.00 150.00 200.00 250.00



PROJEKT bv sko energo trafo
PLOT 4 bew unten
MASZTAB - 1 : 50.00

0.00 50.00 100.00 150.00 200.00 250.00

Anschnitten ϕ 20/20



ϕ 32/20

ϕ 20/20 (untere)

2+25
0+4

22-20

22/2

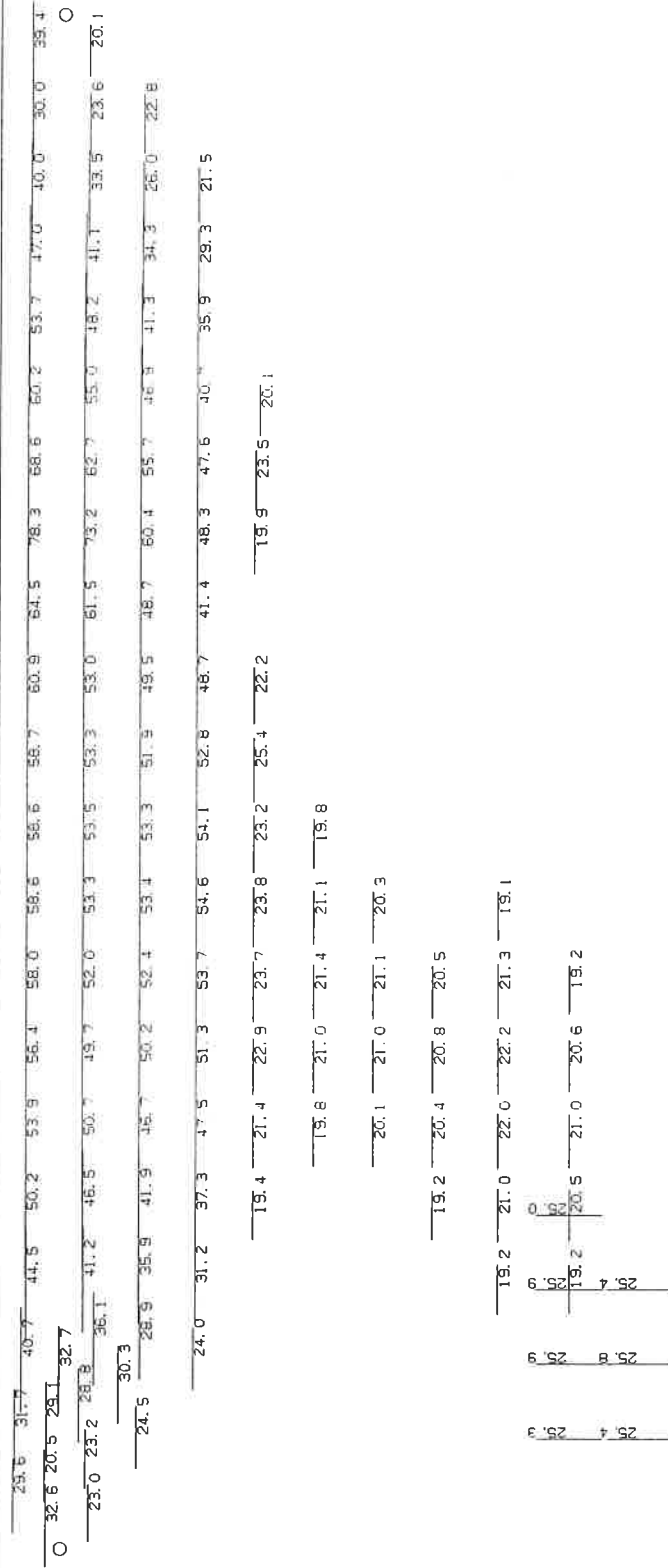
22/2

10.3 10.9 12.0

11.2 12.0 13.2

10.5 10.9

Asa - 651 ca



PROJEKT bv sko energo trafo
PLOT 4 bew unten
MASZSTAB - 1 : 50.00

per / - 420





07/06/20 #

0.00	50.00	100.00	150.00	200.00	250.00
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Änderung

lage der Pfähle:

> Höherer Träger $70\text{ cm} \rightarrow 120\text{ cm}$

>

258	257	256	271	255	254	253	252	251	250	249	248	247	246	245	2450	213	212	211	210	209	208	207	206	205	204	203	202							
465	461	268	268	268	269	270	383	382	381	380	378	377	376	375	2450	214	441	440	439	438	437	436	435	434	433	432	201							
464	467	265	264	263	262	261	384	365	366	367	368	370	371	372	2480	215	442	443	444	445	446	447	448	449	450	431	200							
259	466	265	264	263	262	261	374	365	366	367	368	369	370	371	2480	216	442	443	444	445	446	447	448	449	450	431	200							
227	228	229	274	273	230	231	232	233	234	235	236	237	238	239	240	2451	217	218	219	220	221	222	223	224	225	226	199							
181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	1661	147	146	145	144	143	142	141	140	139	138	137	136							
182	348	347	346	345	344	343	342	341	340	339	338	337	336	335	1651	148	419	418	417	416	415	414	413	412	411	410	135							
183	349	350	351	352	353	354	355	356	357	358	359	360	361	334	1681	149	420	421	422	423	424	425	426	427	428	429	430	409	134					
184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	1651	150	421	422	423	424	425	426	427	428	429	430	409	134						
110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	950	151	422	423	424	425	426	427	428	429	430	409	134							
111	319	318	317	316	315	314	313	312	311	310	309	308	307	306	150	483	82	81	80	79	78	77	76	75	74	73	72							
112	320	321	322	323	324	325	326	327	328	329	330	331	332	333	462	484	85	86	87	88	89	90	91	92	93	94	71							
113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	1280	485	86	87	88	89	90	91	92	93	94	71								
36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	2153	486	87	88	89	90	91	92	93	94	71									
37	303	302	301	300	299	304	298	297	296	295	294	293	292	291	2053	487	88	89	90	91	92	93	94	71										
38	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	400	401	402	403	404	405	406	407	408	385	40							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	183	400	401	402	403	404	405	406	407	408	385	40						
515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549

PROJEKT bv sko energo trafo
PLOT 1 system
MASZSTAB - 1 : 50.00

0.00 50.00 100.00 150.00 200.00 250.00



Prog.: PL REV. 5.60

Datum: 97/11/10 Zeit: 15:37 Seite: 7

Autor: ** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

BEMESSUNG NACH DIN 1045

Kraefte von uelag

Ergebnisdatei bew

Sicherheitsfaktor..... 1.75

B 35	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
1	0.550	1.41	0.84	3.22	4.68	11833.8	57.4	116.2	1a
2	0.550	1.75	2.24	6.54	6.25	14859.9	37.9	77.7	1a
3	0.550	2.11	3.53	8.30	7.06	16177.1	89.2	183.2	1a
4	0.550	3.45	4.40	8.71	7.98	16811.2	157.0	323.1	1b
5	0.550	12.25	6.11	13.36	10.30	13267.4	241.5	491.2	8.2
		6.16	4.76	7.29	8.98	16619.6			8.3
6	0.550	19.22	11.36	12.35	16.23	6818.0	409.6	874.6	14.6
		9.39	3.78	2.72	8.56	14962.3			14.0
7	0.550	11.82	6.66	7.26	10.33	10118.5	301.2	654.7	10.9
		5.05	1.83	0.85	4.51	10392.3			10.1
8	0.550	1.44	1.75	4.60	4.03	12333.8	131.9	267.8	1a
9	0.550	0.56	2.17	7.07	3.89	13775.5	53.2	108.4	1a
10	0.550	0.67	2.42	7.26	3.91	13897.4	94.6	193.3	1a
11	0.550	1.74	2.54	5.49	4.12	12968.8	178.3	363.3	1b
12	0.550	11.51	5.91	11.07	9.05	10288.5	335.9	730.3	12.2
		3.67	2.27	1.78	3.38	10288.5			11.3
13	0.550	12.57	7.29	7.57	10.94	6746.6	330.4	718.3	12.0
		4.94	0.92	0.20	4.30	10137.3			11.1
14	0.550	2.38	2.54	4.96	4.94	13167.0	159.1	324.4	1b
15	0.550	1.01	3.05	6.38	4.44	13716.4	80.2	163.8	1a
16	0.550	1.20	3.12	5.87	3.99	13125.1	51.5	103.2	1a
17	0.550	2.24	2.96	3.89	3.00	11062.3	90.3	181.3	1a
18	0.550	5.48	3.60	1.56	2.74	12413.5	164.9	332.5	1b
19	0.550	6.91	3.73	0.51	2.97	13310.7	136.5	278.4	1b
20	0.550	7.74	3.25	0.00	2.88	13542.7	140.5	286.6	1b
21	0.550	7.86	2.32	0.00	2.46	13092.2	145.8	296.9	1b
22	0.550	2.64	0.89	1.55	4.12	10071.8	100.9	202.9	1a
23	0.550	0.35	0.62	4.58	6.39	13826.8	91.5	186.0	1a
24	0.550	0.00	0.34	6.26	8.34	15808.3	91.9	188.0	1a
25	0.550	0.00	0.20	6.62	9.59	16587.4	95.5	195.9	1a
26	0.550	0.31	0.29	8.17	11.53	18128.8	98.5	203.3	1a
27	0.550	0.77	0.50	10.03	14.03	19830.0	98.2	203.7	1a
28	0.550	1.15	0.66	11.18	15.66	20800.8	96.2	199.8	1a
29	0.550	1.57	0.63	11.37	16.68	21191.9	95.8	199.1	1a
30	0.550	2.24	0.56	10.86	17.68	21326.4	92.9	193.3	1a
31	0.550	2.93	0.61	10.40	18.81	21504.6	85.3	177.4	1a
32	0.550	3.38	0.84	9.81	19.14	21396.8	71.8	149.3	1a
33	0.550	3.93	1.10	9.05	18.51	20935.7	54.9	114.1	1a
34	0.550	4.25	1.19	8.05	17.26	20166.8	41.0	84.9	1a
35	0.550	4.54	1.21	6.91	16.17	19349.5	42.5	87.9	1a

Prog.: PL REV. 5.60

Datum:97/11/10 Zeit:15:37 Seite: 8

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0	
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
36	0.550	3.53	0.28	4.48	13.81	17386.0	93.2	191.9	1a	
37	0.550	3.16	0.28	4.19	11.68	16334.8	78.3	159.3	1a	
38	0.550	2.43	0.57	3.84	8.56	14608.7	63.1	128.1	1a	
39	0.550	0.75	0.74	2.93	3.35	10592.8	74.4	150.4	1a	
40	0.550	1.48	0.54	3.33	5.78	12654.7	52.5	106.4	1a	
41	0.550	2.38	0.49	3.80	7.98	14271.0	70.8	143.8	1a	
42	0.550	2.96	0.55	4.24	9.71	15424.4	94.3	193.2	1a	
43	0.550	3.37	0.80	4.65	10.85	16193.1	118.5	243.4	1a	
44	0.550	3.80	1.30	5.06	11.57	16676.5	140.3	288.4	1b	
45	0.550	4.20	2.46	8.01	13.47	18826.1	21.5	44.5	1a	
46	0.550	2.80	2.50	9.44	13.54	19422.4	19.3	39.9	1a	
47	0.550	2.16	2.57	10.79	13.58	19953.2	33.0	68.3	1a	
48	0.550	1.62	2.49	11.65	13.22	20139.6	47.2	98.0	1a	
49	0.550	1.11	2.30	11.64	12.22	19772.8	59.0	122.3	1a	
50	0.550	0.64	2.06	10.81	10.64	18842.8	67.4	139.6	1a	
51	0.550	0.38	1.87	9.29	8.63	17334.3	76.3	157.3	1a	
52	0.550	0.51	1.77	7.21	6.38	15283.4	86.9	178.1	1a	
53	0.550	1.23	1.72	4.70	4.14	12478.0	104.9	213.1	1a	
54	0.550	2.66	1.67	1.88	2.21	8832.6	125.6	251.9	1a	
55	0.550	6.53	1.03	0.00	1.22	11239.0	162.4	328.9	1b	
56	0.550	6.97	1.24	0.00	1.31	11901.1	151.4	307.3	1b	
57	0.550	6.87	1.83	0.00	1.52	12078.3	138.1	280.4	1b	
58	0.550	6.14	2.39	0.00	1.50	11872.2	133.5	271.2	1a	
59	0.550	5.28	2.34	0.00	1.27	11139.4	135.3	274.3	1a	
60	0.550	4.63	2.32	0.00	1.22	10658.6	178.1	360.9	1b	
61	0.550	2.42	1.79	2.33	1.12	8717.0	99.3	200.4	1a	
62	0.550	0.86	1.34	3.97	1.60	9951.2	61.8	124.1	1a	
63	0.550	0.23	1.13	4.11	1.67	10134.3	44.3	89.6	1a	
64	0.550	0.78	0.87	2.27	1.84	8618.3	117.4	236.8	1a	
65	0.550	8.73	7.27	5.83	7.43	8850.0	278.2	604.8	10.1	
		3.23	1.15	0.06	2.19	8850.0			9.3	-
66	0.550	14.16	7.32	10.73	8.91	6349.6	327.6	712.1	11.9	
		5.76	3.45	2.59	5.06	12699.3			11.1	-
67	0.550	7.34	4.37	11.59	6.14	13894.1	204.5	427.0	7.1	
		2.53	3.84	6.76	5.61	14620.4			7.0	-
68	0.550	0.74	3.75	8.36	5.23	15249.6	127.6	261.5	1a	
69	0.550	0.30	3.25	8.02	4.84	14856.2	62.2	127.2	1a	
70	0.550	0.48	2.14	6.28	4.43	13650.3	18.4	37.4	1a	
71	0.600	4.41	1.75	5.32	11.64	16153.2	152.4	284.7	1b	
72	0.600	4.76	1.84	5.72	12.16	16566.7	191.0	357.1	1b	
73	0.600	5.65	4.03	9.14	13.98	18664.1	49.7	93.6	1a	
74	0.600	3.61	4.26	10.70	13.55	19087.9	67.3	126.9	1a	
75	0.600	2.52	4.32	12.71	13.54	19779.3	80.4	151.8	1a	
76	0.600	1.43	4.18	14.68	13.53	20417.5	73.4	138.7	1a	
77	0.600	0.43	3.88	15.86	13.18	20665.9	47.6	90.0	1a	
78	0.600	0.00	3.48	15.90	12.25	20371.7	27.3	51.5	1a	
79	0.600	0.00	3.02	14.82	10.81	19513.8	21.6	40.8	1a	
80	0.600	0.00	2.50	12.54	8.99	18064.7	50.6	95.0	1a	

Prog.: PL REV. 5.60

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0	
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
81	0.600	0.00	1.89	9.53	6.73	15880.1	92.1	171.8	1a	
82	0.600	0.85	1.18	4.81	4.07	11950.6	142.4	262.2	1a	
83	0.600	5.70	0.74	1.32	1.04	10120.6	158.3	291.1	1b	
84	0.600	6.55	0.86	0.45	0.77	10460.4	178.0	327.3	1b	
85	0.600	2.11	1.50	3.03	3.31	10165.6	154.8	283.7	1b	
86	0.600	0.57	1.91	7.60	5.94	14590.9	116.2	216.1	1a	
87	0.600	0.00	2.28	10.69	8.42	17120.6	84.0	157.3	1a	
88	0.600	0.00	2.64	13.05	10.54	18833.9	60.5	114.0	1a	
89	0.600	0.13	2.98	14.45	12.32	19942.2	42.5	80.3	1a	
90	0.600	0.77	3.30	14.84	13.60	20486.6	29.2	55.3	1a	
91	0.600	1.55	3.53	14.11	14.22	20458.3	31.9	60.2	1a	
92	0.600	2.38	3.60	12.43	14.24	19921.8	32.0	60.3	1a	
93	0.600	3.35	3.50	10.48	14.03	19174.1	17.3	32.6	1a	
94	0.600	5.14	3.38	8.78	13.96	18518.6	14.8	27.7	1a	
95	0.600	5.51	1.23	2.06	2.05	10380.0	131.4	241.9	1a	
96	0.600	1.50	0.43	4.34	5.14	12339.3	126.9	234.7	1a	
97	0.600	0.00	0.99	9.44	8.48	16634.6	102.6	192.0	1a	
98	0.600	0.00	1.37	14.16	12.20	19807.6	77.9	147.0	1a	
99	0.600	0.00	1.59	17.09	15.31	21683.6	51.3	97.2	1a	
100	0.600	0.00	1.73	18.23	17.57	22633.0	50.7	96.3	1a	
101	0.600	0.07	1.83	18.22	19.07	22761.1	61.4	116.8	1a	
102	0.600	1.01	1.90	17.37	19.89	22760.5	73.5	140.2	1a	
103	0.600	1.95	1.96	15.90	20.07	22664.5	86.0	163.8	1a	
104	0.600	2.79	1.99	13.97	19.68	22012.8	95.5	181.5	1a	
105	0.600	3.48	2.00	11.67	18.76	21051.4	101.8	192.8	1a	
106	0.600	3.97	2.03	9.06	17.46	19783.8	105.1	198.2	1a	
107	0.600	4.29	2.07	6.77	16.18	18507.3	89.5	168.3	1a	
108	0.600	4.45	2.11	5.36	15.23	17591.7	72.4	135.7	1a	
109	0.600	5.05	2.20	4.94	14.88	17280.6	50.1	93.8	1a	
110	0.600	3.80	0.85	3.56	13.43	16072.3	164.6	307.1	1b	
111	0.600	3.89	0.25	3.94	15.08	16909.6	145.0	271.2	1b	
112	0.600	3.94	0.11	4.18	15.40	17141.7	123.4	230.9	1a	
113	0.600	4.02	0.37	4.23	14.44	16797.9	100.1	187.2	1a	
114	0.600	5.33	1.49	6.63	16.99	18724.1	32.4	60.8	1a	
115	0.600	4.78	1.38	7.73	18.10	19499.1	28.7	53.9	1a	
116	0.600	3.86	1.35	9.22	19.40	20418.5	43.0	81.1	1a	
117	0.600	3.57	1.25	10.98	20.40	21285.6	59.0	111.6	1a	
118	0.600	3.08	1.16	12.55	20.77	21875.8	63.0	119.5	1a	
119	0.600	2.43	1.12	13.75	20.63	22197.3	64.5	122.4	1a	
120	0.600	1.76	1.12	14.36	19.90	22185.4	67.2	127.4	1a	
121	0.600	1.09	1.11	14.40	18.63	21851.7	72.4	137.4	1a	
122	0.600	0.46	1.03	13.73	16.81	21134.9	77.3	146.4	1a	
123	0.600	0.00	0.90	12.24	14.30	19873.1	84.0	158.7	1a	
124	0.600	0.00	0.81	9.87	11.13	17891.8	94.3	177.1	1a	
125	0.600	0.00	0.81	6.45	7.72	14889.9	113.1	210.7	1a	
126	0.600	0.18	0.86	3.84	5.60	12311.1	121.8	224.4	1a	
127	0.600	2.31	0.92	1.80	3.44	7998.2	134.5	246.6	1a	
128	0.600	8.96	1.98	0.00	1.91	13034.4	163.5	302.9	1b	

Prog.: PL REV. 5.60

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
129	0.600	8.84	1.91	0.00	1.17	12940.8	167.6	310.4	1b	
130	0.600	8.68	1.52	0.00	0.50	12600.0	169.6	313.7	1b	
131	0.600	7.31	0.78	0.80	0.67	11264.0	152.6	281.3	1b	
132	0.600	6.33	1.20	1.61	1.35	10930.3	135.7	250.1	1a	
133	0.550	5.41	6.06	6.47	16.63	13983.4	247.3	522.9		8.7
		4.98	3.05	6.04	10.94	16884.3				8.5
134	0.550	5.61	11.89	6.26	12.67	11802.0	280.4	593.5		9.9
		5.39	6.12	6.04	6.62	14571.6				9.6
135	0.550	5.61	19.69	6.33	8.12	13114.2	325.5	689.0		11.5
		5.07	12.14	5.80	0.05	16976.4				11.2
136	0.550	5.56	29.98	2.84	0.00	17945.7	383.0	790.0		13.2
		5.54	21.85	2.82	0.00	20583.8				13.3
137	0.550	5.35	19.19	5.78	0.00	19707.5	146.1	302.6	1b	
138	0.550	2.41	14.24	7.89	0.00	16530.4	84.6	173.5	1a	
139	0.550	0.45	10.67	9.75	0.29	13425.1	63.2	128.5	1a	
140	0.550	0.00	8.10	11.40	2.05	14791.2	67.8	138.4	1a	
141	0.550	0.00	6.17	12.88	3.88	16634.1	78.6	161.2	1a	
142	0.550	0.00	4.54	14.13	5.79	18066.0	89.1	183.4	1a	
143	0.550	0.00	3.24	15.04	7.55	19166.7	97.8	201.9	1a	
144	0.550	0.00	2.09	15.52	9.04	19934.6	108.3	224.7	1a	
145	0.550	0.00	0.90	15.41	10.06	20287.5	141.9	294.9	1b	
146	0.550	0.00	1.94	17.99	13.49	18917.5	201.4	422.9		7.0
		0.00	0.00	13.42	9.49	19374.4				7.0
147	0.550	0.00	0.54	10.79	6.10	16842.6	161.7	332.8	1b	
148	0.550	0.00	0.46	5.80	3.27	12598.2	122.2	247.7	1a	
149	0.550	0.17	0.81	3.99	2.47	10713.5	111.8	224.8	1a	
150	0.550	2.05	0.72	2.30	1.97	8779.9	111.4	223.8	1a	
151	0.550	3.38	0.85	1.90	1.69	8687.1	121.7	245.4	1a	
152	0.550	4.15	0.88	1.62	1.54	9435.4	129.3	261.0	1a	
153	0.550	0.19	0.73	5.49	4.03	12911.8	111.9	227.1	1a	
154	0.550	0.00	1.46	9.65	6.39	16470.3	73.1	150.0	1a	
155	0.550	0.00	2.08	12.21	8.22	18363.8	40.6	84.0	1a	
156	0.550	0.00	2.65	14.08	9.62	19624.1	36.3	75.3	1a	
157	0.550	0.00	3.20	14.69	10.53	20222.2	47.4	98.4	1a	
158	0.550	0.17	3.75	14.31	11.01	20272.8	62.1	128.8	1a	
159	0.550	1.23	4.27	13.14	11.14	19912.4	75.2	156.2	1a	
160	0.550	2.42	4.68	11.52	11.21	19347.6	79.3	164.3	1a	
161	0.550	3.62	4.88	9.93	11.43	18815.0	74.7	154.6	1a	
162	0.550	5.57	4.91	8.83	12.16	18656.7	58.6	121.3	1a	
163	0.550	3.77	1.35	2.39	2.63	9382.5	122.3	246.9	1a	
164	0.550	2.52	1.85	3.32	3.42	10418.9	134.0	270.7	1a	
165	0.550	1.72	1.90	4.82	4.77	12977.7	156.0	317.8	1b	
166	0.550	8.31	3.54	20.11	10.47	16437.3	297.6	618.5		10.3
		0.00	2.93	13.28	9.82	19456.5				10.3
167	0.550	9.69	5.37	25.94	19.58	18671.1	325.1	706.8		11.8
		0.00	2.38	17.79	15.33	22761.0				11.3
168	0.550	7.73	4.36	26.62	18.68	21352.0	272.1	567.2		9.5
		0.00	3.24	20.04	16.97	22764.4				9.6

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
169	0.550	5.75	4.61	25.79	16.57	22036.2	255.7	534.0	8.9	
		0.43	4.52	20.27	16.30	22760.6			9.0	-
170	0.550	6.66	6.62	25.22	15.54	21242.3	249.9	522.9	8.7	
		0.91	5.61	19.56	14.91	22768.6			8.7	-
171	0.550	7.41	8.22	24.19	14.67	19865.7	242.9	508.7	8.5	
		1.38	6.63	18.28	13.21	22258.7			8.5	-
172	0.550	8.15	9.76	22.37	13.60	18301.2	232.2	486.4	8.1	
		2.20	7.54	16.55	11.41	21143.7			8.1	-
173	0.550	8.79	11.02	19.93	12.40	16682.4	218.2	457.1	7.6	
		3.15	8.20	14.42	9.61	19780.7			7.5	-
174	0.550	9.42	11.93	16.88	11.19	17322.2	202.9	425.1	7.1	
		4.27	8.61	11.91	7.85	18122.4			7.0	-
175	0.550	5.52	8.69	9.04	6.17	16080.5	189.3	388.7	1b	
176	0.550	6.54	8.30	5.93	4.44	15925.7	182.6	374.8	1b	
177	0.550	6.72	7.63	3.36	2.97	15683.5	179.6	368.5	1b	
178	0.550	6.17	7.30	1.73	1.64	15116.0	168.5	345.3	1b	
179	0.550	5.03	8.17	1.45	0.40	14878.2	143.1	292.8	1b	
180	0.550	4.67	10.03	1.67	0.00	15627.6	129.1	264.6	1a	
181	0.550	4.35	15.91	2.11	0.00	15458.8	226.7	460.7	7.7	
		3.55	11.02	1.29	0.00	15458.8			7.7	-
182	0.550	3.15	9.80	2.72	5.83	13283.8	221.3	466.2	7.8	
		3.05	7.42	2.62	2.44	13283.8			7.5	-
183	0.550	3.40	4.49	3.11	11.21	13229.3	206.9	436.5	7.3	
		3.40	4.49	3.11	7.47	13229.3			7.0	-
184	0.550	3.40	2.14	3.55	11.54	15756.3	192.9	395.5	1b	
185	0.550	4.28	3.07	4.40	12.34	16657.0	71.6	147.1	1a	
186	0.550	4.14	2.71	4.46	12.49	16778.7	88.7	182.4	1a	
187	0.550	4.04	2.42	5.42	13.25	17604.7	100.2	206.6	1a	
188	0.550	3.80	2.19	7.21	14.45	18856.2	114.3	236.4	1a	
189	0.550	3.39	2.03	9.48	15.76	20216.3	120.2	249.7	1a	
190	0.550	2.76	1.89	11.74	16.85	21371.9	118.0	246.0	1a	
191	0.550	1.97	1.74	13.75	17.54	22233.8	110.0	230.0	1a	
192	0.550	1.08	1.55	15.37	17.76	22764.4	98.2	205.1	1a	
193	0.550	0.18	1.35	16.51	17.49	22761.8	84.1	175.9	1a	
194	0.550	0.00	1.17	16.97	16.64	22771.3	66.9	139.8	1a	
195	0.550	0.00	1.00	16.50	15.09	22336.8	49.6	103.4	1a	
196	0.550	0.00	0.80	14.66	12.72	20996.5	47.0	97.6	1a	
197	0.550	0.00	0.48	11.14	9.49	18510.7	73.3	151.4	1a	
198	0.550	0.42	0.61	6.07	5.98	14448.6	107.3	219.4	1a	
199	1.200	2.09	25.41	10.52	3.60	9345.0	421.0	376.8	6.3	
		0.00	15.34	8.66	0.00	10764.0			6.2	-
200	1.200	24.42	45.65	35.77	31.89	7120.3	1131.2	1019.1	18.0	
		0.84	20.97	11.53	0.00	12711.1			17.6	-
201	1.200	30.51	34.18	30.51	11.44	6409.8	1157.2	1042.5	18.9	
		0.00	11.22	5.17	0.00	9291.0			18.3	-
202	1.200	5.09	10.16	12.93	8.98	5100.2	369.1	332.6	5.5	
		0.00	3.02	4.58	0.00	6010.4			5.4	-
203	1.200	5.54	6.98	29.48	3.13	4150.7	656.4	591.3	9.9	

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		0.00	4.12	13.84	0.00	10216.5			9.7	-
204	1.200	0.83	5.84	39.37	3.99	9243.9	715.2	636.0	10.6	
		0.00	5.15	24.15	3.29	14173.9			10.6	-
205	1.200	0.00	6.45	47.05	5.28	12023.1	746.5	663.0	11.1	
		0.00	5.86	31.47	4.69	16062.7			11.1	-
206	1.200	0.05d	6.33	52.24	5.75	13766.4	757.0	675.1	11.3	
		0.00	6.06	36.85	5.48	17210.1			11.3	-
207	1.200	0.06d	6.23	57.08	6.07	15164.7	751.6	672.4	11.2	
		0.00	6.13	42.07	5.97	18156.1			11.3	-
208	1.200	0.06d	5.97	60.27	6.25	16053.5	737.8	661.6	11.0	
		0.00	5.96	45.71	6.24	18746.3			11.1	-
209	1.200	0.06d	5.66	63.50	6.26	16638.9	729.0	654.4	10.9	
		0.00	5.53	49.08	6.14	19190.3			11.0	-
210	1.200	0.07d	5.36	65.86	5.86	17119.6	704.0	632.6	10.5	
		0.05d	5.20	51.95	5.71	19479.3			10.6	-
211	1.200	0.07d	4.67	68.19	5.42	17585.0	676.5	608.4	10.1	
		0.05d	4.48	54.85	5.24	19750.8			10.2	-
212	1.200	0.07d	5.04	71.70	5.12	17862.5	637.5	573.2	9.6	
		0.06d	4.32	58.72	4.40	19990.3			9.6	-
213	1.200	0.07d	0.00	73.45	10.45	18919.9	511.6	461.7	7.7	
		0.06d	0.00	61.98	7.72	21015.3			7.7	-
214	1.200	0.07d	7.60	72.82	18.51	21235.9	394.8	359.9	6.0	
		0.06d	0.35	63.91	12.78	22074.2			6.0	-
215	1.200	0.06d	2.04	59.81	15.43	22093.3	252.3	230.3	1b	
216	1.200	0.06d	3.04	56.98	15.05	21736.8	280.5	255.4	1b	
217	1.200	0.06d	5.48	55.89	10.38	19974.5	338.9	305.2	5.1	
		0.05d	3.44	51.81	8.38	19974.5			5.1	-
218	1.200	0.05d	4.97	53.92	9.86	20503.1	328.7	297.8	1b	
219	1.200	0.05d	6.33	53.50	9.67	20418.6	310.6	281.2	1b	
220	1.200	0.05d	7.09	51.35	8.91	20015.9	288.5	260.9	1b	
221	1.200	0.00	7.85	48.16	7.89	19411.8	263.6	238.4	1b	
222	1.200	0.00	8.45	44.11	6.72	18614.4	225.0	203.0	1b	
223	1.200	0.00	9.02	39.24	5.34	17576.2	173.8	156.3	1a	
224	1.200	0.00	9.87	33.58	3.59	16195.5	110.5	99.0	1a	
225	1.200	0.00	11.63	27.26	1.42	14353.0	38.7	34.6	1a	
226	1.200	0.00	15.19	19.59	0.00	12012.5	168.0	149.5	1a	
227	1.200	2.17	5.98	0.93	0.00	8036.3	158.1	139.2	1a	
228	1.200	6.22	6.91	0.91	0.50	10139.6	234.2	207.3	1b	
229	1.200	10.03	7.39	0.00	1.36	11612.9	317.9	282.3	1b	
230	1.200	18.61	11.07	0.00	6.86	14925.2	328.7	294.3	1b	
231	1.200	14.16	13.73	9.01	9.64	14529.3	278.1	248.7	1b	
232	1.200	14.63	16.78	27.61	13.22	14383.0	339.3	303.6	5.1	
		6.21	14.68	19.43	11.10	15121.7			5.1	-
233	1.200	11.55	16.69	38.95	14.23	14895.7	425.7	381.1	6.4	
		0.47	14.98	29.18	12.51	17387.5			6.4	-
234	1.200	3.60	16.60	48.93	15.31	16674.0	508.7	457.4	7.6	
		0.00	15.16	37.71	13.87	19060.6			7.7	-
235	1.200	0.66d	16.35	57.34	16.39	18015.7	581.1	524.3	8.7	

Prog.: PL REV. 5.60

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		0.00	15.15	44.91	15.18	20316.4			8.8	-
236	1.200	0.06d	15.78	64.01	17.29	19061.6	637.0	576.4	9.6	-
		0.05d	14.85	50.77	16.36	21249.4			9.7	-
237	1.200	0.07d	14.71	68.90	17.93	19908.5	672.4	609.9	10.2	-
		0.06d	14.16	55.34	17.38	21931.9			10.2	-
238	1.200	0.07d	13.02	71.92	18.10	20596.6	685.1	622.7	10.4	-
		0.06d	12.99	58.62	18.08	22387.9			10.4	-
239	1.200	0.07d	12.26	74.23	19.41	20452.5	680.3	618.1	10.3	-
		0.06d	11.14	60.07	18.16	22546.4			10.4	-
240	1.200	0.07d	11.56	73.45	19.21	19589.6	665.7	601.4	10.0	-
		0.06d	9.27	58.78	16.33	22131.9			10.1	-
241	1.200	0.08d	12.41	78.59	27.11	21925.0	564.1	512.8	8.5	-
		0.07d	9.48	66.61	23.52	22772.0			8.6	-
242	1.200	0.07d	11.00	71.02	26.44	22762.6	227.8	211.0	1b	-
243	1.200	0.09d	13.49	87.81	28.32	22488.3	548.7	501.7	8.4	-
		0.08d	9.22	75.85	23.15	22764.9			8.5	-
244	1.200	0.09d	5.34	91.52	16.05	19060.5	1103.5	998.8	17.3	-
		0.07d	3.26	68.39	13.53	22605.7			17.7	-
245	1.200	0.09d	10.52	88.44	10.40	17638.3	1244.4	1120.8	21.8	-
		0.06d	9.73	63.61	9.60	21510.7			22.3	-
246	1.200	0.08d	10.17	84.15	11.18	17134.5	1291.9	1162.6	23.5	-
		0.06d	9.94	58.69	10.95	21234.0			24.0	-
247	1.200	0.08d	11.15	81.24	11.69	16362.8	1332.1	1196.6	24.9	-
		0.05d	10.91	54.81	11.44	20888.5			25.5	-
248	1.200	4.00d	11.53	78.14	11.85	15434.5	1374.6	1232.1	26.4	-
		0.05d	11.34	50.74	11.66	20441.8			27.0	-
249	1.200	9.10	11.64	74.26	11.74	14202.5	1413.2	1263.7	27.7	-
		0.00	11.51	45.93	11.62	19816.1			28.5	-
250	1.200	13.66	11.48	69.18	11.39	12522.3	1444.3	1291.6	29.0	-
		0.00	11.48	40.07	11.39	18944.5			29.6	-
251	1.200	40.84	11.35	63.14	11.15	9992.8	1468.1	1312.6	29.9	-
		0.00	11.30	33.11	11.09	17777.4			30.4	-
252	1.200	33.86	11.12	55.61	10.93	9147.6	1476.5	1319.8	30.2	-
		0.00	10.99	24.98	10.80	16219.5			30.5	-
253	1.200	35.90	10.86	45.52	9.21	9115.6	1474.4	1317.8	30.2	-
		5.11	10.82	14.75	9.17	13492.4			30.0	-
254	1.200	48.50	11.62	37.80	6.75	8303.8	1636.6	1460.8	37.1	-
		13.10	10.24	2.41	5.35	13352.1			37.0	-
255	1.200	51.00	14.39	14.06	9.59	7418.8	1139.0	1026.1	18.3	-
		23.15	6.86	0.00	2.14	14893.3			18.0	-
256	1.200	7.54	1.75	0.00	1.23	8528.3	96.9	85.4	1a	-
257	1.200	3.70	1.37	0.00	0.77	6358.6	48.9	42.9	1a	-
258	1.200	0.82	0.64	0.00	0.00	3439.4	12.6	11.0	1a	-
259	1.200	2.22	5.49	1.26	0.00	7819.0	62.9	55.3	1a	-
260	1.200	40.62	22.87	26.94	18.07	10784.9	760.3	677.8	11.3	-
		21.99	17.55	8.04	12.68	17077.2			11.4	-
261	1.200	63.57	29.10	33.77	15.96	10367.1	1349.8	1209.1	25.4	-
		31.24	21.72	0.00	8.37	19470.2			26.0	-

Prog.: PL REV. 5.60

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0	
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
262	1.200	41.04	46.78	2.88	33.61	11612.7	1175.9	1060.6	19.5	
		30.00	17.10	0.00	3.99	18438.7			19.6	-
263	1.200	20.04	10.90	0.00	3.45	15204.7	263.8	236.3	1b	
264	1.200	13.83	7.98	0.00	3.30	12910.3	184.3	164.2	1a	
265	1.200	9.56	6.80	0.00	2.27	11268.4	126.4	112.1	1a	
266	1.200	8.26	3.96	0.00	2.28	9772.7	55.5	49.0	1a	
267	1.200	12.33	5.02	0.00	3.14	11551.8	92.6	82.1	1a	
268	1.200	18.60	8.61	0.00	3.74	14302.7	131.5	117.3	1a	
269	1.200	44.36	31.48	4.86	18.47	9817.4	763.5	687.9	11.5	
		28.97	15.33	0.00	2.42	17919.7			11.5	-
270	1.200	72.32	43.02	52.10	30.76	11781.6	1742.3	1569.7	42.8	
		30.41	16.25	0.00	4.03	18345.9			43.0	-
271	1.200	19.57	5.41	0.00	2.50	13671.9	187.5	167.2	1a	
272	1.200	13.30	2.43	0.00	2.97	10961.1	23.9	21.1	1a	
273	1.200	26.55	11.88	5.54	7.36	11313.7	392.1	346.6	5.8	
		16.81	8.30	0.00	3.72	13782.2			5.8	-
274	1.200	13.79	8.76	0.00	1.99	13124.0	315.1	280.9	1b	
275	0.550	3.26	2.12	7.14	10.36	17176.6	56.3	115.7	1a	
276	0.550	3.67	2.88	9.04	11.37	18429.4	52.1	107.4	1a	
277	0.550	5.06	3.41	9.87	12.80	19320.8	65.2	134.7	1a	
278	0.550	6.84	3.23	8.80	14.00	19340.2	105.8	218.8	1a	
279	0.550	6.62	1.78	5.87	13.59	17946.5	105.8	217.7	1a	
280	0.550	3.16	0.86	4.39	9.77	15539.0	103.0	210.6	1a	
281	0.550	1.62	1.45	6.24	7.24	15233.4	107.8	220.4	1a	
282	0.550	0.99	1.99	8.06	6.80	15929.5	86.4	177.1	1a	
283	0.550	1.25	2.36	8.70	7.42	16540.1	82.1	168.6	1a	
284	0.550	1.97	2.39	7.74	7.88	16311.6	102.7	210.6	1a	
285	0.550	2.64	1.39	4.20	7.65	14324.8	101.5	206.9	1a	
286	0.550	1.47	0.00	2.86	7.54	13439.3	100.9	205.7	1a	
287	0.550	1.51	0.31	6.18	7.57	15371.4	87.3	179.0	1a	
288	0.550	1.05	1.90	7.21	6.50	15349.5	49.6	101.7	1a	
289	0.550	1.47	2.54	6.11	5.18	14009.2	50.6	103.0	1a	
290	0.550	2.89	2.63	3.35	3.53	11065.6	70.4	142.3	1a	
291	0.550	3.16	1.36	2.41	3.96	10672.8	84.6	170.5	1a	
292	0.550	0.81	0.73	5.34	5.95	14016.1	71.2	144.9	1a	
293	0.550	0.00	0.27	6.60	7.57	15590.0	70.1	143.2	1a	
294	0.550	0.00	0.00	6.14	8.56	15859.7	83.0	170.4	1a	
295	0.550	0.70	0.22	4.79	8.23	14968.7	94.1	192.6	1a	
296	0.550	1.19	0.71	7.11	10.03	17017.3	98.4	202.2	1a	
297	0.550	1.33	1.11	9.09	11.48	18495.3	97.8	201.7	1a	
298	0.550	1.42	1.16	9.42	11.76	18742.3	95.4	196.9	1a	
299	0.550	3.33	0.93	8.30	15.49	19670.8	94.7	196.0	1a	
300	0.550	4.45	1.47	8.78	16.47	20187.5	82.3	170.6	1a	
301	0.550	4.61	1.91	9.07	15.87	20098.5	66.9	138.5	1a	
302	0.550	4.12	1.84	8.37	14.60	19385.3	51.2	105.9	1a	
303	0.550	4.11	1.53	6.98	13.68	18469.2	51.4	106.2	1a	
304	0.550	2.41	0.78	8.40	13.60	19032.6	97.0	200.4	1a	
305	0.550	1.62	1.13	8.38	10.75	17897.6	92.4	190.4	1a	

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0	
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
306	0.600	2.69	0.60	3.32	4.08	9906.2	146.2	268.3	1b	
307	0.600	0.00	1.03	6.33	7.28	14641.6	133.2	248.1	1a	
308	0.600	0.00	1.31	11.66	11.48	18694.9	115.2	216.7	1a	
309	0.600	0.00	1.50	15.27	15.15	21107.3	72.9	138.1	1a	
310	0.600	0.00	1.60	17.04	18.06	22446.4	41.9	79.7	1a	
311	0.600	0.30	1.66	17.61	20.18	22765.8	24.4	46.4	1a	
312	0.600	1.15	1.69	17.31	21.54	22766.9	22.5	42.8	1a	
313	0.600	1.99	1.70	16.34	22.17	22771.2	31.4	60.0	1a	
314	0.600	2.77	1.68	14.84	22.11	22764.6	43.9	83.8	1a	
315	0.600	3.42	1.66	12.88	21.45	22149.0	57.8	109.8	1a	
316	0.600	3.91	1.64	10.40	20.26	21060.6	73.8	139.8	1a	
317	0.600	4.21	1.62	8.01	18.88	19840.6	61.5	116.0	1a	
318	0.600	4.50	1.57	6.40	17.71	18870.4	43.1	81.1	1a	
319	0.600	5.21	1.57	5.67	17.01	18349.4	20.6	38.7	1a	
320	0.600	5.33	1.38	6.28	17.69	18814.9	25.1	47.2	1a	
321	0.600	4.70	1.35	7.22	18.66	19484.5	36.4	68.7	1a	
322	0.600	4.03	1.39	8.88	19.98	20471.2	55.0	103.9	1a	
323	0.600	3.75	1.38	11.11	21.28	21563.0	67.2	127.5	1a	
324	0.600	3.28	1.37	13.24	22.17	22439.6	49.6	94.4	1a	
325	0.600	2.64	1.38	14.76	22.44	22770.9	35.0	66.7	1a	
326	0.600	1.92	1.39	15.78	22.07	22764.6	24.6	47.0	1a	
327	0.600	1.15	1.39	16.23	21.04	22759.7	24.0	45.7	1a	
328	0.600	0.40	1.35	15.98	19.31	22488.6	33.9	64.5	1a	
329	0.600	0.00	1.28	14.90	16.84	21498.9	52.6	99.8	1a	
330	0.600	0.00	1.20	12.71	13.64	19817.1	80.3	151.6	1a	
331	0.600	0.00	1.09	8.97	9.85	17019.5	119.0	222.9	1a	
332	0.600	0.00	0.91	4.02	5.79	12410.7	135.5	250.8	1a	
333	0.600	2.69	0.83	2.13	2.46	7841.6	147.9	271.3	1b	
334	0.550	0.00	1.12	8.38	6.66	16013.8	115.5	237.2	1a	
335	0.550	0.00	0.78	11.31	8.66	18227.9	124.6	257.4	1a	
336	0.550	0.00	1.10	15.20	11.61	20782.6	58.5	121.7	1a	
337	0.550	0.00	1.15	16.59	12.79	21627.2	41.0	84.5	1a	
338	0.550	0.00	1.39	16.72	12.85	21684.8	40.8	84.8	1a	
339	0.550	0.00	1.69	16.05	12.31	21296.5	68.1	141.5	1a	
340	0.550	0.00	1.93	14.79	11.47	20599.8	88.9	184.4	1a	
341	0.550	0.64	2.13	13.08	10.48	19641.3	104.8	216.8	1a	
342	0.550	1.77	2.59	10.98	9.39	18407.3	118.0	243.9	1a	
343	0.550	2.84	3.21	8.55	8.21	16844.1	127.5	262.4	1a	
344	0.550	3.67	3.70	6.00	6.96	14943.6	130.9	268.0	1a	
345	0.550	4.06	4.13	3.75	5.86	12794.5	126.8	258.3	1a	
346	0.550	4.02	4.71	2.38	4.79	12406.9	117.6	238.4	1a	
347	0.550	3.87	5.64	1.95	3.91	12924.6	112.6	228.1	1a	
348	0.550	3.90	7.03	2.46	3.39	13740.1	106.7	217.0	1a	
349	0.550	4.14	4.85	3.54	8.26	13949.3	87.9	179.4	1a	
350	0.550	4.04	4.02	3.27	8.44	13950.9	100.1	204.3	1a	
351	0.550	4.01	3.43	3.95	9.15	14845.1	105.6	216.0	1a	
352	0.550	3.85	3.00	5.49	10.12	16249.8	113.9	233.9	1a	
353	0.550	3.45	2.71	7.70	11.36	17855.1	118.5	244.6	1a	

Prog.: PL REV. 5.60

Datum:97/11/10 Zeit:15:37 Seite: 16

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35	h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
354	0.550	2.75	2.42	10.11	12.54	19317.1	116.4	241.2	1a
355	0.550	1.84	2.07	12.38	13.49	20490.1	108.1	224.7	1a
356	0.550	0.85	1.67	14.30	14.16	21361.3	97.2	202.2	1a
357	0.550	0.00	1.25	15.78	14.53	21945.3	82.4	171.7	1a
358	0.550	0.00	0.86	16.70	14.52	22219.6	63.8	133.1	1a
359	0.550	0.00	0.51	16.85	14.00	22097.8	43.1	89.9	1a
360	0.550	0.00	0.73	15.89	12.69	21378.4	35.6	73.3	1a
361	0.550	0.00	1.02	13.32	10.28	19649.4	70.1	145.3	1a
362	1.200	26.97	19.64	3.23	12.86	13497.5	369.6	332.9	5.5
		19.94	11.39	0.00	4.56	15303.1			5.5 -
363	1.200	28.54	24.28	3.37	19.38	14586.2	356.9	319.0	5.3
		25.52	15.34	0.25	10.33	17299.3			5.4 -
364	1.200	13.02	21.94	26.79	18.16	18084.9	275.0	248.2	1b
365	1.200	5.73	22.57	36.54	19.68	19925.9	208.1	188.8	1a
366	1.200	0.00	22.87	45.17	21.27	21356.4	150.9	137.5	1a
367	1.200	0.05d	23.03	52.51	22.55	22415.9	111.9	101.1	1a
368	1.200	0.06d	22.82	58.56	23.63	22743.9	97.5	88.3	1a
369	1.200	0.06d	22.10	63.32	24.42	22751.0	87.8	79.6	1a
370	1.200	0.07d	20.71	66.66	24.74	22770.1	83.4	75.7	1a
371	1.200	0.07d	18.40	68.47	23.93	22755.2	93.3	84.7	1a
372	1.200	0.07d	14.73	69.88	23.38	22762.6	135.5	123.0	1a
373	1.200	28.96	24.91	24.65	19.80	16532.8	346.0	309.6	5.2
		20.42	20.99	16.05	15.84	17456.7			5.2 -
374	1.200	38.33	28.12	21.06	20.52	14733.9	513.1	458.6	7.6
		25.95	21.09	8.29	13.37	18485.6			7.7 -
375	1.200	0.08d	15.58	80.63	20.27	22770.3	474.4	434.5	7.2
		0.07d	15.46	71.77	20.18	22763.3			7.3 -
376	1.200	0.08d	18.91	77.20	22.01	22767.6	438.2	401.6	6.7
		0.07d	18.86	69.07	21.99	22752.1			6.7 -
377	1.200	0.07d	20.96	74.48	23.07	22734.8	439.5	402.3	6.7
		0.07d	20.67	66.07	22.82	22753.0			6.7 -
378	1.200	0.07d	22.17	71.37	23.33	22295.0	460.2	420.6	7.0
		0.06d	21.76	62.36	22.98	22756.6			7.1 -
379	1.200	0.07d	22.59	67.19	22.94	21628.6	490.0	446.8	7.4
		0.06d	22.26	57.47	22.61	22749.2			7.5 -
380	1.200	5.08d	22.58	61.88	22.19	20674.7	525.9	478.2	8.0
		0.05d	22.33	51.40	21.95	22201.8			8.0 -
381	1.200	12.25	22.15	55.32	21.20	19425.8	562.2	509.4	8.5
		0.00	22.06	44.12	21.11	21198.9			8.5 -
382	1.200	18.89	21.60	47.56	19.95	17530.7	608.4	548.5	9.1
		6.06	21.51	35.31	19.87	19777.8			9.2 -
383	1.200	27.57	21.88	39.08	18.16	14739.7	653.2	587.4	9.8
		13.63	21.56	25.49	17.86	17795.7			9.8 -
384	1.200	36.78	23.79	32.13	18.11	13312.9	689.2	617.0	10.3
		20.84	21.44	16.01	15.75	17621.5			10.4 -
385	0.550	1.38	2.21	6.81	6.85	15326.4	39.6	81.0	1a
386	0.550	2.43	2.03	6.96	9.10	16518.0	41.5	85.1	1a
387	0.550	3.21	1.94	7.20	11.06	17506.3	36.4	75.0	1a

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
388	0.550	3.69	2.11	7.58	12.39	18224.6	33.6	69.3	1a	
389	0.550	2.43	2.30	8.99	12.13	18715.4	32.3	66.7	1a	
390	0.550	1.99	2.47	9.98	11.83	18993.1	40.6	84.0	1a	
391	0.550	1.80	2.36	10.06	11.16	18762.5	50.5	104.3	1a	
392	0.550	1.39	1.97	9.34	9.87	17938.0	57.8	119.2	1a	
393	0.550	0.88	1.62	8.09	7.88	16475.3	60.9	125.1	1a	
394	0.550	0.57	1.49	6.48	5.59	14457.8	62.8	128.4	1a	
395	0.550	0.80	1.58	4.79	3.56	12135.5	68.3	138.9	1a	
396	0.550	1.66	1.70	3.65	2.90	10799.9	85.4	172.2	1a	
397	0.550	3.20	1.80	1.21	1.91	9472.1	106.5	213.8	1a	
398	0.550	3.67	1.92	0.91	1.81	9986.7	88.8	178.2	1a	
399	0.550	3.46	1.96	1.53	1.87	9840.8	75.9	152.0	1a	
400	0.550	3.31	2.59	1.98	1.39	10266.4	64.3	128.6	1a	
401	0.550	1.21	1.88	4.32	2.12	10687.5	41.2	82.7	1a	
402	0.550	0.46	1.37	4.68	2.76	11463.7	37.7	76.5	1a	
403	0.550	1.04	0.95	2.75	3.19	10311.1	74.8	151.5	1a	
404	0.550	2.86	1.16	2.80	5.90	12372.7	74.6	151.3	1a	
405	0.550	4.12	3.02	6.38	8.53	15961.9	69.7	142.9	1a	
406	0.550	2.95	3.96	9.06	8.28	17109.6	66.2	136.1	1a	
407	0.550	1.89	3.79	9.70	7.93	17233.0	40.5	83.4	1a	
408	0.550	1.33	3.18	8.88	7.37	16603.6	30.0	61.5	1a	
409	0.550	5.84	7.37	8.72	8.09	16817.0	75.3	155.0	1a	
410	0.550	5.57	12.38	7.76	1.92	17316.8	126.2	259.9	1a	
411	0.550	2.84	9.80	8.84	2.46	14659.6	120.6	246.6	1a	
412	0.550	1.04	7.47	10.39	3.30	15108.2	97.3	199.2	1a	
413	0.550	0.00	5.51	11.80	4.29	16379.6	79.7	163.8	1a	
414	0.550	0.00	4.00	13.04	5.42	17465.1	64.1	132.1	1a	
415	0.550	0.00	2.87	13.98	6.45	18304.2	48.6	100.3	1a	
416	0.550	0.00	2.00	14.39	7.17	18774.0	37.1	76.1	1a	
417	0.550	0.00	1.26	13.84	7.22	18589.3	46.3	94.9	1a	
418	0.550	0.00	0.65	12.11	6.63	17649.3	64.3	131.7	1a	
419	0.550	0.00	0.00	9.43	5.04	15681.4	114.8	235.4	1a	
420	0.550	0.00	0.47	7.56	4.04	14143.2	102.1	208.1	1a	
421	0.550	0.00	0.57	6.43	3.67	13259.1	104.0	211.1	1a	
422	0.550	0.00	0.90	6.15	3.78	13159.2	106.9	216.9	1a	
423	0.550	0.00	1.31	10.40	5.76	16502.6	73.9	151.7	1a	
424	0.550	0.00	1.52	13.12	7.16	18284.5	38.6	78.8	1a	
425	0.550	0.00	2.03	14.55	8.16	19245.2	26.0	53.2	1a	
426	0.550	0.00	2.82	14.64	8.40	19375.6	37.8	78.2	1a	
427	0.550	0.00	3.71	13.93	8.22	19046.0	51.5	106.5	1a	
428	0.550	0.55	4.69	12.71	7.88	18442.8	63.1	130.2	1a	
429	0.550	1.97	5.70	11.21	7.62	17734.7	74.5	153.8	1a	
430	0.550	3.49	6.58	9.70	7.61	17057.6	84.4	173.8	1a	
431	1.200	2.63	18.66	31.19	0.52	11015.5	364.2	327.8	5.5	
		0.00	17.39	22.84	0.00	12880.3			5.4	-
432	1.200	1.54	12.24	28.40	0.00	9511.6	470.4	420.7	7.0	
		0.00	11.92	18.43	0.00	11676.8			7.0	-
433	1.200	0.00	12.75	37.33	6.42	12590.0	415.8	369.6	6.2	

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Datum:97/11/10 Zeit:15:37 Seite: 18

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
		0.00	11.21	27.83	4.85	15383.2			6.2	-
434	1.200	0.00	12.03	43.28	8.76	15773.6	362.5	324.9	5.4	-
		0.00	11.26	35.45	7.98	17521.6			5.4	-
435	1.200	0.00	11.41	42.16	9.58	18902.2	325.0	293.7	1b	
436	1.200	0.00	11.50	47.02	10.59	19770.1	296.2	268.4	1b	
437	1.200	0.05d	11.33	51.67	11.23	20479.3	277.4	251.8	1b	
438	1.200	0.05d	10.69	54.67	11.41	20866.3	272.2	247.5	1b	
439	1.200	0.06d	9.61	57.16	11.35	21135.8	264.2	240.4	1b	
440	1.200	0.06d	8.46	59.16	10.59	21221.5	271.0	246.6	1b	
441	1.200	0.06d	5.89	61.06	9.68	21192.8	310.2	282.2	1b	
442	1.200	0.06d	5.46	58.62	11.84	21341.9	133.8	120.6	1a	
443	1.200	0.06d	8.20	58.07	11.93	21335.7	91.1	82.1	1a	
444	1.200	0.06d	9.68	57.18	12.53	21341.6	76.3	68.8	1a	
445	1.200	0.06d	10.78	55.07	12.22	21052.0	76.5	68.9	1a	
446	1.200	0.05d	11.50	51.83	11.46	20539.4	81.0	72.9	1a	
447	1.200	0.00	11.92	47.60	10.38	19809.1	105.2	95.3	1a	
448	1.200	0.00	12.18	42.50	9.01	18838.2	142.7	129.0	1a	
449	1.200	0.00	12.60	36.30	7.04	17461.4	196.5	176.8	1a	
450	1.200	0.00	13.91	29.32	3.86	15436.0	270.0	241.5	1b	
451	0.550	1.81	2.63	8.66	9.18	17338.0	32.0	65.8	1a	
452	0.550	2.20	2.34	8.66	10.74	18014.7	34.3	70.6	1a	
453	0.550	1.99	2.78	9.40	10.20	18103.2	37.2	76.6	1a	
454	0.550	1.99	1.80	6.85	7.97	15919.4	63.0	129.1	1a	
455	0.550	1.16	1.25	5.15	5.41	13582.3	61.8	126.0	1a	
456	0.550	0.64	1.32	4.45	3.39	11774.7	53.5	108.8	1a	
457	0.550	1.10	1.68	4.48	2.85	11388.3	55.7	112.3	1a	
458	0.550	2.23	1.95	3.08	2.26	9783.7	73.5	146.9	1a	
459	0.550	2.35	2.54	8.51	9.52	17422.2	59.4	122.2	1a	
460	0.550	2.26	3.18	9.39	9.46	17782.5	47.0	96.9	1a	
461	1.200	4.64	3.01	0.00	1.26	7795.5	53.1	46.7	1a	
462	0.600	4.20	0.41	2.03	2.45	8197.2	147.9	271.7	1b	
463	0.550	0.00	0.97	10.15	5.28	16143.8	79.7	163.6	1a	
464	1.200	1.79	3.02	0.68	0.00	6211.3	26.5	23.2	1a	
465	1.200	1.66	2.44	0.39	0.00	5741.6	32.8	28.8	1a	
466	1.200	5.39	6.11	1.23	0.61	9512.2	92.6	81.9	1a	
467	1.200	4.25	4.51	0.33	0.10	8335.9	57.8	51.0	1a	

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 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz
 bv sko energo trafo

BEMESSUNG NACH DIN 1045
 Kraefte von uelag
 Ergebnisdatei bew
 Sicherheitsfaktor..... 1.75

B 35	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.300	7.450	0.300	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
501	0.00	12.77	226.7	1.50	0.65	1	142.4	0.00	1.50
502	0.00	13.73	201.5	1.32	0.58	1	96.2	0.00	1.32
503	0.00	14.98	155.0	1.00	0.44	1	45.6	0.00	1.00
504	0.00	16.10	64.2	0.49	0.25	1	8.3	0.00	0.49
505	0.00	16.47	19.8	0.18	0.10	1	47.5	0.00	0.18
506	0.00	16.49	3.8	0.06	0.01	1	61.9	0.00	0.06
507	0.13	0.08	104.9	0.66	0.29	1	8.4	0.00	0.66
508	0.00	2.37	214.1	1.61	0.74	1	0.4	0.00	1.61
509	0.00	6.06	279.4	2.03	0.98	1	3.7	0.00	2.03
510	0.00	10.02	262.6	1.85	0.92	1	19.5	0.00	1.85
511	0.00	16.31	37.7	0.24	0.06	1	71.3	0.00	0.24
512	0.00	15.77	82.7	0.55	0.23	1	72.2	0.00	0.55
513	0.00	14.83	131.8	0.89	0.42	1	67.2	0.00	0.89
514	0.00	13.35	192.8	1.32	0.65	1	64.1	0.00	1.32

B 35	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.250	0.350	0.250	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
515	0.00	0.61	101.8	0.80	0.15	1	140.6	0.00	0.80
516	0.00	1.63	106.6	0.44	0.11	1	439.6	0.00	0.44
517	0.00	2.01	348.4	1.45	0.74	1	629.5	0.00	1.43
518	0.00	1.61	594.4	6.19	1.38	3	793.8	0.00	6.16
519	0.00	0.30	846.9	8.82	2.03	3	951.9	0.00	8.79
520	2.61	0.00	1364.5	14.21	3.26	3	892.3	0.00	14.18
521	2.24	0.00	367.7	3.64	1.53	1	225.5	0.00	3.64
522	0.00	1.05	81.4	1.50	0.34	1	213.5	0.00	1.50
523	0.00	2.53	96.9	0.40	0.08	1	299.9	0.00	0.40
524	0.00	2.61	325.3	1.36	0.93	1	371.9	0.00	1.36
525	0.00	1.35	602.5	6.28	1.60	3	455.1	0.00	6.28
526	1.93	0.00	682.3	11.20	2.77	3	409.2	0.00	11.20
527	2.19	0.00	380.0	10.97	1.58	3	43.0	0.00	10.97
528	0.00	0.54	114.8	5.91	0.48	3	3.5	0.00	5.91
529	0.00	1.48	29.6	1.42	0.12	1	56.2	0.00	1.42
530	0.00	1.44	159.1	0.66	0.64	1	99.4	0.00	0.66
531	0.39	0.79	256.8	1.07	0.14	1	137.5	0.00	1.07
532	1.93	0.00	435.9	1.82	0.58	1	20.7	0.00	1.82

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

B 35	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.300	7.450	0.300	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
------	------	------	-------	------	--------	-----	--------	-------	-------

533	0.00	1.86	408.7	2.61	1.35	1	165.6	0.00	2.61
534	0.00	5.28	358.8	2.34	1.10	1	220.9	0.00	2.34
535	0.00	8.35	316.2	2.09	0.94	1	222.5	0.00	2.09
536	0.00	11.04	268.4	1.78	0.79	1	192.4	0.00	1.78
B 35	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.250	0.350	0.250	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
------	------	------	-------	------	--------	-----	--------	-------	-------

537	2.24	0.00	303.7	1.97	1.27	1	241.1	0.00	1.97
538	0.67	0.69	120.4	1.22	0.50	1	112.7	0.00	1.22
539	0.00	1.47	2.4	0.83	0.01	1	160.8	0.00	0.83
540	0.00	1.52	176.9	0.74	0.33	1	198.3	0.00	0.74
541	0.00	0.56	381.7	1.59	0.25	1	248.6	0.00	1.59
542	2.11	0.00	810.7	3.38	1.34	1	133.0	0.00	3.38
543	1.92	0.00	779.9	11.54	3.19	3	448.3	0.00	11.54
544	0.00	1.11	501.3	7.41	2.09	3	483.7	0.00	7.39
545	0.00	2.29	332.0	4.98	1.38	3	395.1	0.00	4.95
546	0.00	2.52	164.2	1.05	0.68	1	299.9	0.00	1.05
547	0.00	1.97	5.2	0.18	0.01	1	189.6	0.00	0.18
548	0.00	0.74	169.9	1.04	0.43	1	36.1	0.00	1.04

+ ... Betondruckspannung aus Biegung ueberschritten !

* ... Wechselmoment - Summe : Betonspannung aus Biegung und Bewehrungsaussteifung groesser als zulaessig !

x ... Sicherheit gegen Druckbruch nicht eingehalten !

- ... Horizontalkomponente der Querkraft bei der Biegebemessung nicht beruecksichtigt !

d ... Druckbewehrung

Prog.: PL REV. 5.60

Datum:97/11/10 Zeit:15:37 Seite: 21

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo

MAX-MIN WERTE AUS DER BEMESSUNG - PLATTE

=====

BEMESSUNGSDATEI	max Fe1o	max Fe2o	max Fe1u	max Fe2u
bew	72.32	46.78	91.52	33.61
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	270	262	244	262
	min Fe1o	min Fe2o	min Fe1u	min Fe2u
	0.00	0.00	0.00	0.00
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	24	213	20	136
	max Q	max Tauq	max Feq	max Sigb
	1742.3	1569.7	42.8	22771.3
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	270	270	270	194
	min Q	min Tauq	min Feq	min Sigb
	12.6	11.0	0.0	3439.4
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	258	258	1	258

IBE=1 ... Mindestbewehrung fuer Schub
 IBE=2 ... Verminderte Schubdeckung
 IBE=3 ... Volle Schubdeckung
 IBE=4 ... Unzullaessig

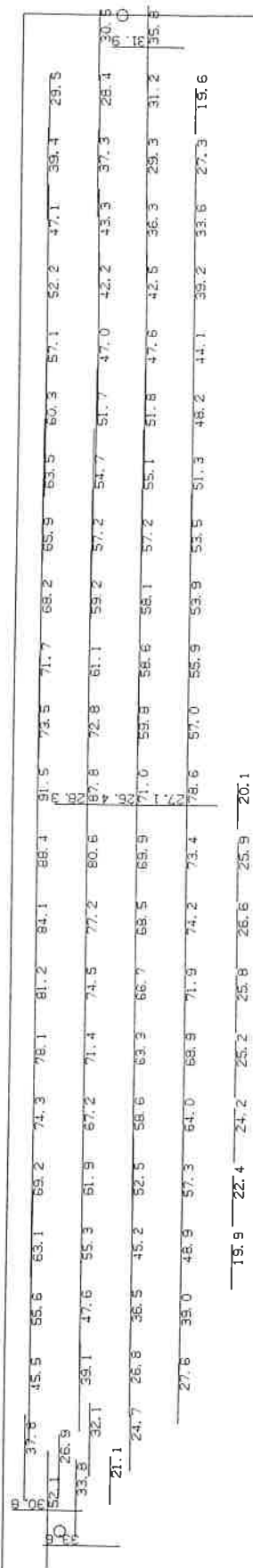
Prog.: PL REV. 5.60 Datum:97/11/10 Zeit:15:37 Seite: 22
 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz
 bv sko energo trafo

MAX-MIN WERTE AUS DER BEMESSUNG - BALKEN
 =====

BEMESSUNGSDATEI	max Feo	max Feu	max Feq	max Femt	max Feges
bew	2.61	16.49	14.21	0.00	14.18
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	520	506	520	501	520
	min Feo	min Feu	min Feq	min Femt	min Feges
	0.00	0.00	0.06	0.00	0.06
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	501	520	506	501	506
	max Tauq	max Taumt			
	1364.5	951.9			
	IEL(Tauq)	IEL(Taumt)			
	520	519			
	min Tauq	min Taumt			
	2.4	0.4			
	IEL(Tauq)	IEL(Taumt)			
	539	508			

CODE=1a ... Mind. Haelfte der Feldbew. bis zu Auflagern durchziehen!
 CODE=1b ... Die gesamte Feldbew. bis zu Auflagern durchziehen!

[illegible][illegible]

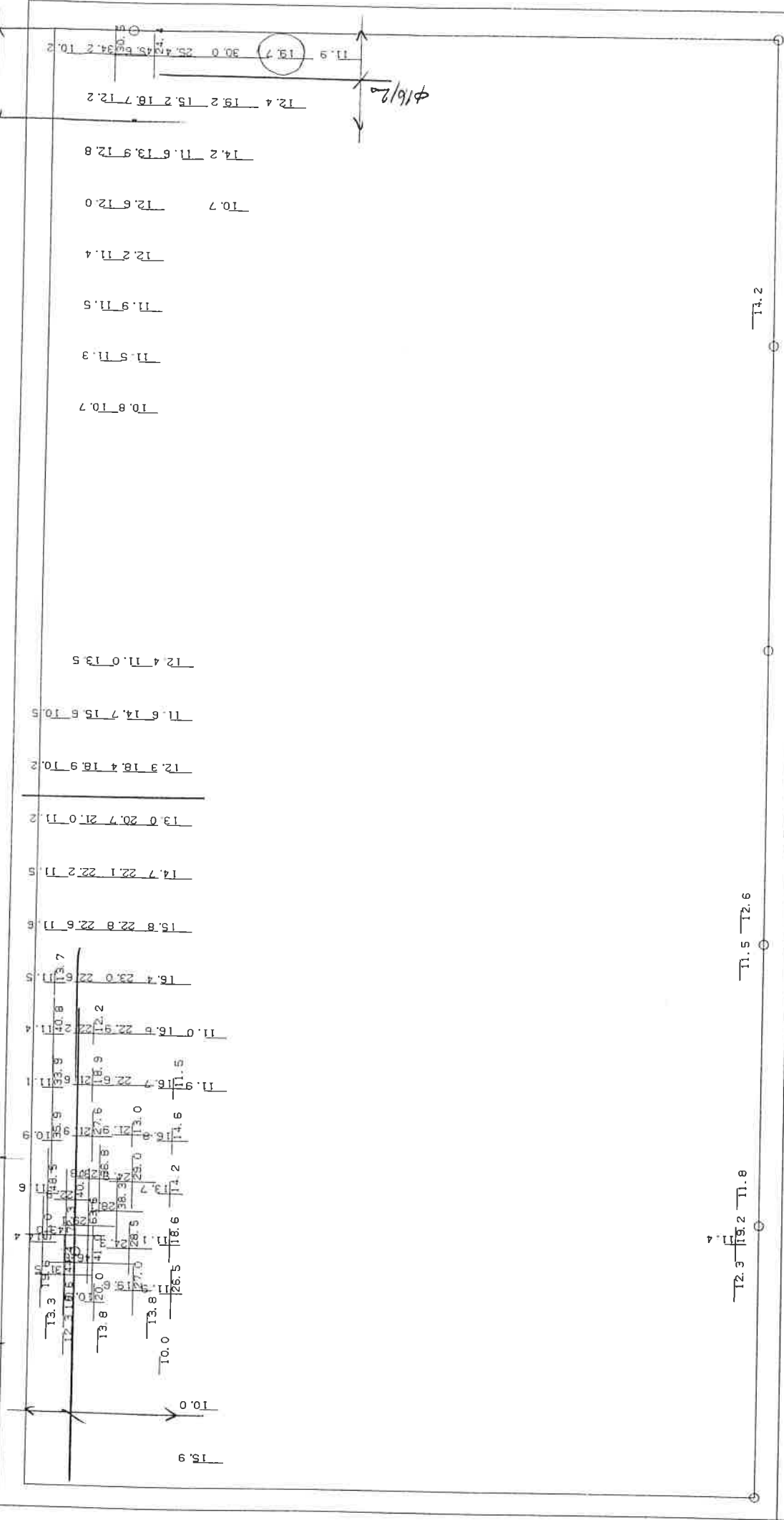


PROJEKT bv sko enargo trafo
 PLOT 4 bew unten
 MASZSTAB - 1 : 50.00





PROJEKT bv sko energo trafo
PLOT 3 bew oben
MASZTAB - 1 : 50.00



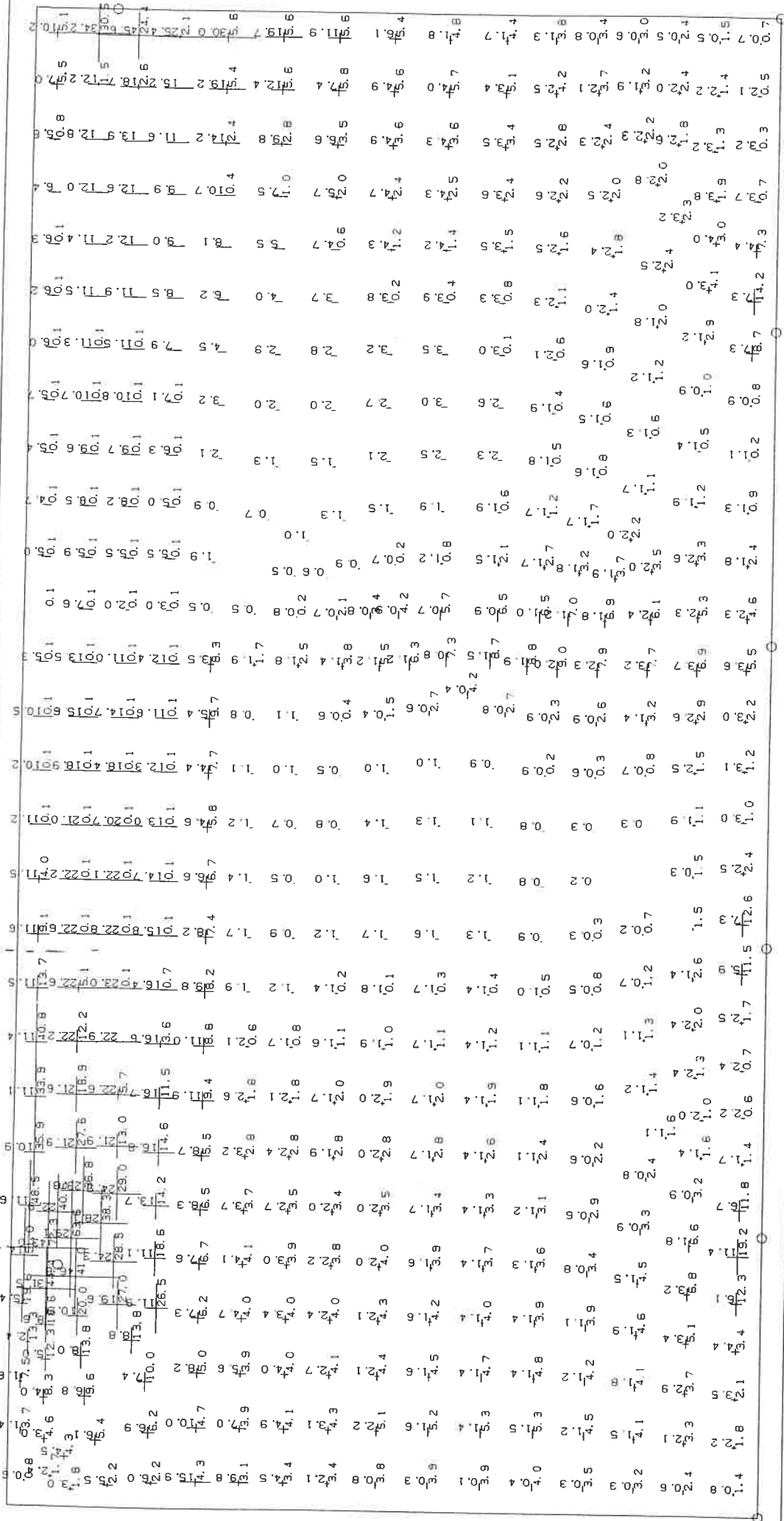
32
425/20/6.0m
425/20
474/20

425/20

416/20



PROJEKT bv sko energo trafo
PLOT 3 bew oben
MASZTAB - 1 : 50.00



10140,0 + 10,0 (50,0)
+ 20,0 + 25/20

Biegebewehrung

siehe auch EDV-Platz

(A) Randträger

→ Längsbewehrung glm. über Breite $B = 1,75 \text{ m}$

$$\max a_s \approx \frac{1}{4} (91,5 + 87,8 + 77,0 + 78,6)$$

$$= 86,2 \text{ cm/m}$$

$$\text{vorh } a_s = \phi 22/20 + \phi 28/20 + \phi 20/20 = 86,7 \text{ cm/m}$$

→ Querbewehrung oben

$$(a) \max a_s = 23,0 \text{ cm/m}$$

$$\text{vorh } a_s = \phi 22/20$$

$$+ \phi 14/20$$

$$19,0 \text{ cm/m}$$

$$7,7 \text{ cm/m}$$

$$26,7 \text{ cm/m}$$

(b) über Pfählen

$$\max a_s = 45,6 \text{ cm/m}$$

$$\text{vorh } a_s = \phi 22/20 + \phi 25/20$$

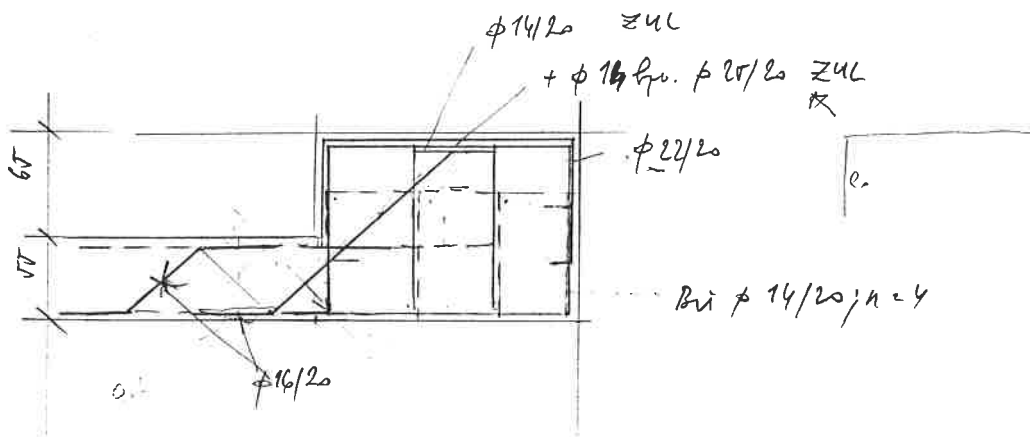
$$49,0 \text{ cm/m}$$

(B) Platte

siehe EDV-Platz

Schnittbewehrung:

Infolge d. höheren Betempante ist die ermittelte
Schnittbewehrung durchwegs kleiner als
die Lastberechnung.



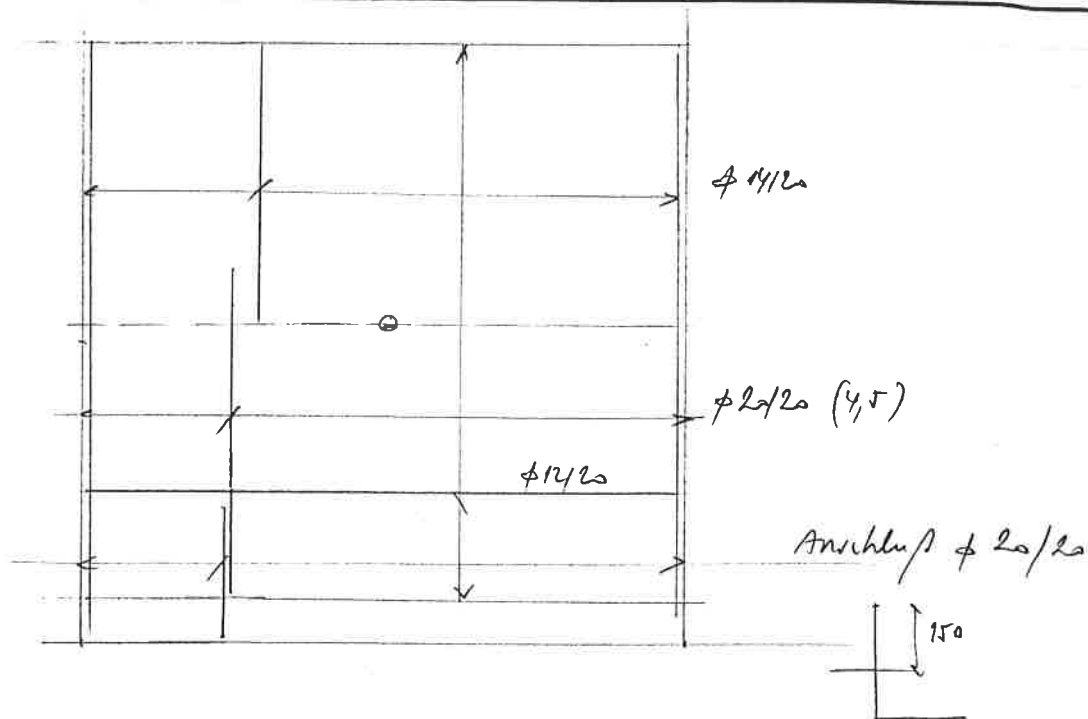
Anschluß Platte an Randträger

Schneidbewehrung: $\phi 16/20$ (in d. Auflagern)

as ober: 10,5 TL: 14,1 cm/m

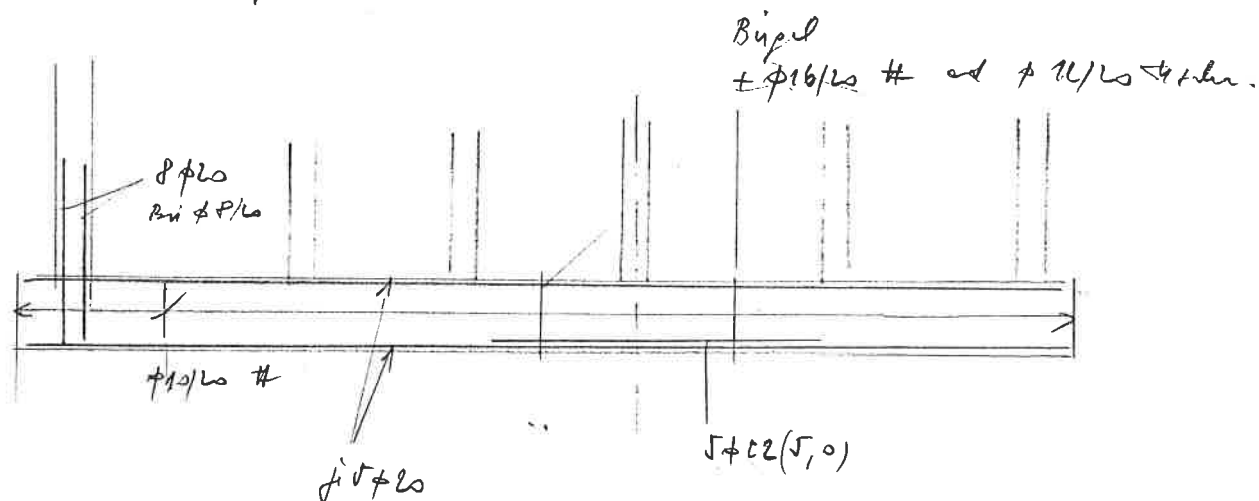
unter as erf =

13,2 cm/m



(a) Wand Stb. $d=30$

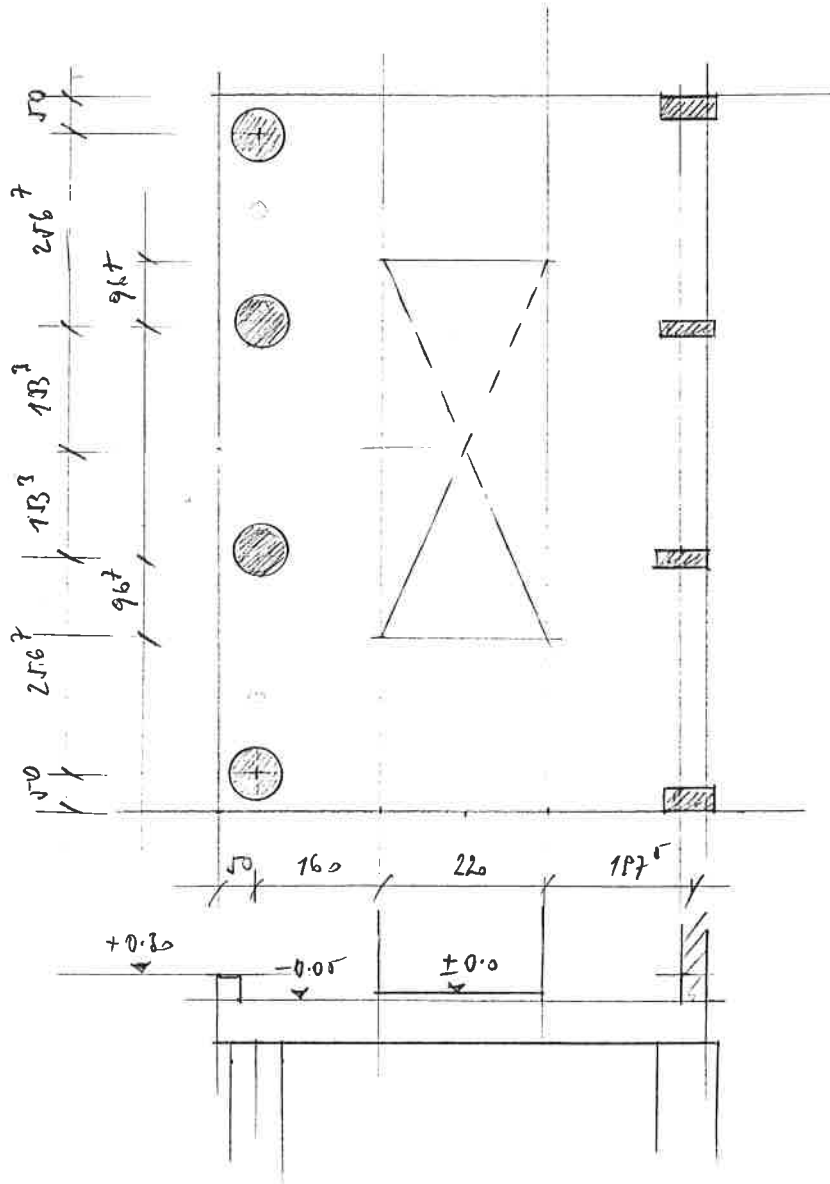
(b) Stützpfundament



(c) Pfähle wie Kernbohrung!

2) BEREICH 8 / Y43 - Y44

41) ^uübersicht



Prog.: PL REV. 5.60
Autor:** TDV-Graz-AUSTRIA **
Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO**

Datum:97/09/30 Zeit:11:01 Seite: 22

8073-Feldkirchen/Graz

bv sko energo trafo
grundplatte 2

ELEM	NOD	LC/SUPER	A	MY-GL	MX-GL
27	1	LC 1	-538.90	0.00	0.00
33	7	LC 1	-539.16	0.00	0.00
1	13	LC 1	-203.52	0.00	0.00
22	37	LC 1	-203.51	0.00	0.00
77	157	LC 1	-125.78	0.00	0.00
82	161	LC 1	-442.50	0.00	0.00
88	167	LC 1	-444.62	0.00	0.00
92	171	LC 1	-124.79	0.00	0.00

Prog.: PL REV. 5.60

Datum:97/09/30 Zeit:11:03 Seite: 23

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
grundplatte 2

ELEM	LC/SUPER	M	Q	MT
201 LC	1	40.23	-167.11	-2.31
202 LC	1	105.86	-93.75	-9.06
203 LC	1	138.27	-23.35	-16.74
204 LC	1	136.42	51.07	-22.42
205 LC	1	97.23	130.18	-25.00
206 LC	1	16.97	217.50	-22.89
207 LC	1	27.59	-238.81	-15.53
208 LC	1	126.40	-143.96	-9.27
209 LC	1	175.33	-45.98	-3.90
210 LC	1	174.19	49.00	2.28
211 LC	1	124.54	142.22	8.78
212 LC	1	26.93	237.26	15.72
213 LC	1	16.98	-218.03	23.23
214 LC	1	97.30	-130.12	25.30
215 LC	1	136.47	-50.99	22.69
216 LC	1	138.35	23.49	16.89
217 LC	1	105.90	93.72	9.10
218 LC	1	40.20	167.14	2.25

Prog.: PL REV. 5.60 Datum:97/09/30 Zeit:10:56 Seite: 12
 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
 grundplatte 2

FUNK	LF.VO	LF.BI	LF.ST	ID	MULTIP	MULTIP1	VON DATEI	NACH	DATEI
CLEAR									uelag
SINGL	1	1	1	1	1.000				uelag

bv sko energo trafo
 grundplatte 2

BEMESSUNG NACH DIN 1045
 Kraefte von uelag
 Ergebnisdatei bew
 Sicherheitsfaktor..... 1.75

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
1	0.550	0.00	0.00	0.17	2.96	6565.0	95.5	192.1	1a
2	0.550	0.00	0.00	0.19	6.69	9507.9	74.0	149.8	1a
3	0.550	0.00	0.00	0.31	9.93	11379.8	58.3	118.7	1a
4	0.550	0.00	0.00	0.58	12.63	12729.6	40.0	81.9	1a
5	0.550	0.00	0.00	1.31	13.10	13298.7	48.5	99.7	1a
6	0.550	0.00	0.00	2.24	13.80	14013.0	55.7	114.8	1a
7	0.550	0.00	0.00	3.30	14.59	14760.1	70.1	144.9	1a
8	0.550	0.00	0.00	4.15	15.13	15291.3	84.5	175.1	1a
9	0.550	0.00	0.00	4.60	15.35	15539.5	93.8	194.6	1a
10	0.550	0.00	0.00	4.71	15.31	15571.3	98.4	204.2	1a
11	0.550	0.00	0.00	4.52	14.93	15380.0	101.0	209.5	1a
12	0.550	0.00	0.00	4.40	14.63	15237.6	103.5	214.6	1a
13	0.550	0.00	0.00	4.59	14.88	15393.7	101.3	210.0	1a
14	0.550	0.00	0.00	4.56	15.13	15456.5	94.1	195.2	1a
15	0.550	0.00	0.00	4.13	15.03	15249.1	84.4	175.0	1a
16	0.550	0.00	0.00	3.29	14.54	14737.8	70.2	145.1	1a
17	0.550	0.00	0.00	2.24	13.81	14011.9	55.1	113.6	1a
18	0.550	0.00	0.00	1.31	13.13	13310.7	48.0	98.5	1a
19	0.550	0.00	0.00	0.58	12.62	12724.6	40.4	82.6	1a
20	0.550	0.00	0.00	0.30	9.94	11381.1	58.1	118.3	1a
21	0.550	0.00	0.00	0.19	6.74	9539.0	73.6	149.1	1a
22	0.550	0.00	0.00	0.18	2.97	6586.0	95.6	192.2	1a
23	0.550	0.00	0.00	0.78	3.47	7635.7	72.4	146.3	1a
24	0.550	0.26	0.00	1.21	3.67	8175.7	76.8	155.5	1a
25	0.550	0.38	0.00	1.42	3.52	8222.9	86.5	175.3	1a
26	0.550	0.50	0.00	1.40	3.10	7864.7	97.7	197.7	1a
27	0.550	0.67	0.00	1.17	2.49	7119.2	126.1	254.6	1b
28	0.550	0.49	0.00	0.98	1.92	6361.8	128.7	259.3	1b
29	0.550	0.16	0.00	0.98	1.60	6013.9	120.2	242.1	1a
30	0.550	0.00	0.00	0.65	1.12	4999.6	121.1	243.1	1b
31	0.550	0.00	0.00	0.65	1.23	5160.6	119.0	239.1	1a
32	0.550	0.00	0.00	0.96	1.70	6097.7	117.2	236.0	1a
33	0.550	0.40	0.00	1.02	2.02	6519.9	129.1	260.3	1b
34	0.550	0.63	0.00	1.20	2.58	7228.7	126.8	256.1	1b
35	0.550	0.50	0.00	1.41	3.15	7915.5	97.8	197.9	1a
36	0.550	0.38	0.00	1.42	3.54	8242.8	86.2	174.7	1a
37	0.550	0.24	0.00	1.22	3.69	8203.3	77.0	156.0	1a
38	0.550	0.00	0.00	0.78	3.47	7639.3	71.9	145.4	1a
39	0.600	0.29	0.00	0.21	13.12	12219.0	22.1	41.0	1a
40	0.600	0.00	0.00	0.17	13.78	12451.8	4.7	8.8	1a

bv sko energo trafo
 grundplatte 2

B 25	h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
41	0.600	0.00	0.00	0.10	13.31	12234.6	20.5	38.0	1a
42	0.600	0.20	0.00	0.14	11.88	11682.4	40.1	74.2	1a
43	0.600	0.25	0.00	0.69	12.49	12219.4	45.7	85.0	1a
44	0.600	0.00	0.00	1.52	13.46	13002.0	56.2	104.9	1a
45	0.600	0.00	0.00	2.58	14.54	13853.6	75.5	141.5	1a
46	0.600	0.00	0.00	3.54	15.22	14473.5	84.2	158.4	1a
47	0.600	0.00	0.00	4.28	15.37	14813.6	86.8	163.4	1a
48	0.600	0.00	0.00	5.39	15.65	15313.5	84.2	158.9	1a
49	0.600	0.00	0.00	6.04	15.60	15534.1	81.0	153.0	1a
50	0.600	0.00	0.00	6.05	15.61	15542.5	81.1	153.2	1a
51	0.600	0.00	0.00	5.39	15.66	15317.5	84.5	159.4	1a
52	0.600	0.00	0.00	4.25	15.37	14801.0	87.2	164.1	1a
53	0.600	0.00	0.00	3.52	15.23	14468.1	84.6	159.1	1a
54	0.600	0.00	0.00	2.57	14.55	13851.4	75.6	141.8	1a
55	0.600	0.00	0.00	1.52	13.48	13006.2	56.2	105.0	1a
56	0.600	0.27	0.00	0.69	12.49	12222.5	45.8	85.1	1a
57	0.600	0.21	0.00	0.15	11.88	11685.9	39.7	73.6	1a
58	0.600	0.00	0.00	0.10	13.31	12235.6	20.3	37.7	1a
59	0.600	0.00	0.00	0.16	13.77	12442.9	4.7	8.8	1a
60	0.600	0.29	0.00	0.21	13.11	12213.4	22.1	41.1	1a
61	0.600	0.19	0.00	0.73	13.62	12676.8	33.2	61.9	1a
62	0.600	0.00	0.00	1.68	14.45	13423.6	43.4	81.1	1a
63	0.600	0.00	0.00	3.11	15.51	14386.4	61.1	114.8	1a
64	0.600	0.00	0.00	4.47	16.41	15193.7	66.0	124.4	1a
65	0.600	0.00	0.00	5.27	16.95	15636.5	69.0	130.3	1a
66	0.600	0.00	0.00	5.67	17.20	15846.5	69.6	131.5	1a
67	0.600	0.00	0.00	5.62	17.06	15794.2	70.7	133.7	1a
68	0.600	0.00	0.00	5.56	16.98	15749.7	72.9	137.9	1a
69	0.600	0.00	0.00	5.60	17.09	15794.6	71.2	134.5	1a
70	0.600	0.00	0.00	5.29	16.93	15637.4	68.7	129.9	1a
71	0.600	0.00	0.00	4.48	16.40	15194.3	66.1	124.5	1a
72	0.600	0.00	0.00	3.12	15.51	14389.6	61.3	115.2	1a
73	0.600	0.00	0.00	1.69	14.46	13432.0	43.5	81.4	1a
74	0.600	0.19	0.00	0.74	13.64	12687.4	33.3	62.0	1a
75	0.550	0.00	0.00	0.45	10.39	11683.4	57.6	117.5	1a
76	0.550	0.09	0.00	0.20	6.90	9647.8	76.8	155.5	1a
77	0.550	0.80	0.00	0.00	2.70	6106.9	101.4	204.3	1a
78	0.550	0.77	0.16	0.00	0.09	3628.0	27.7	55.5	1a
79	0.550	0.37	0.43	0.74	0.71	4526.4	35.3	70.7	1a
80	0.550	0.00	0.15	2.30	1.69	7423.3	40.0	80.8	1a
81	0.550	0.82	0.44	0.97	1.39	5759.1	97.7	196.6	1a
82	0.550	9.48	0.00	0.00	0.00	2747.9	178.4	355.2	5.9
		4.82	1.85	0.00	0.00	9452.6			6.0
83	0.550	9.45	4.60	1.21	0.74	3210.3	188.2	409.1	6.8
		4.50	2.38	0.00	0.00	9618.2			6.4
84	0.550	0.00	0.00	2.66	0.82	6915.4	104.5	210.9	1a
85	0.550	0.00	0.00	5.21	1.12	9168.9	40.6	82.5	1a
86	0.550	0.00	0.00	5.20	1.11	9164.7	40.8	82.8	1a

Prog.: PL REV. 5.60

Datum:97/09/30 Zeit:10:56 Seite: 15

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
grundplatte 2

B 25	h'1o	h'2o	h'1u	h'2u	phil-o	phi2-o	phil-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
87	0.550	0.00	0.00	2.64	0.81	6882.7	104.5	210.9	1a
88	0.550	9.48	4.62	1.19	0.74	3221.3	188.1	408.9	6.8
		4.54	2.40	0.00	0.00	9663.5			6.4
89	0.550	9.54	0.00	0.00	0.00	2865.0	178.8	356.0	5.9
		4.87	1.86	0.00	0.00	9496.5			6.1
90	0.550	0.86	0.45	0.93	1.38	5696.4	97.9	197.0	1a
91	0.550	0.00	0.15	2.28	1.71	7428.8	40.5	81.9	1a
92	0.550	0.37	0.42	0.76	0.73	4582.9	34.6	69.4	1a
93	0.550	0.76	0.16	0.00	0.09	3603.1	27.6	55.1	1a
94	0.550	0.81	0.00	0.00	2.71	6114.5	101.0	203.6	1a
95	0.550	0.10	0.00	0.21	6.90	9655.0	76.4	154.8	1a
96	0.550	0.00	0.00	0.46	10.38	11689.2	57.2	116.7	1a
97	0.550	0.00	0.00	1.26	10.97	12406.1	59.5	121.8	1a
98	0.550	0.06	0.00	2.14	11.84	13225.8	70.5	145.0	1a
99	0.550	0.05	0.00	2.70	12.83	13879.3	92.8	191.2	1a
100	0.550	0.00	0.00	2.68	13.13	13975.4	111.6	230.2	1a
101	0.550	0.00	0.00	2.84	12.67	13883.1	118.1	243.4	1b
102	0.550	0.00	0.00	4.58	12.94	14750.5	113.4	234.6	1a
103	0.550	0.00	0.00	5.47	12.59	15000.5	101.7	210.6	1a
104	0.550	0.00	0.00	5.45	12.55	14977.5	101.9	211.2	1a
105	0.550	0.00	0.00	4.57	12.90	14731.9	113.5	234.9	1a
106	0.550	0.00	0.00	2.86	12.66	13889.5	117.8	242.8	1b
107	0.550	0.00	0.00	2.71	13.14	13992.3	111.1	229.1	1a
108	0.550	0.00	0.00	2.72	12.86	13894.3	92.0	189.6	1a
109	0.550	0.00	0.00	2.14	11.85	13230.3	70.3	144.6	1a
110	0.550	0.00	0.00	1.25	10.97	12401.8	59.6	122.1	1a
111	0.550	0.00	0.00	0.94	6.97	10204.6	68.0	138.3	1a
112	0.550	0.00	0.00	1.18	10.35	12086.2	58.9	120.5	1a
113	0.550	0.00	0.00	2.07	10.85	12785.2	66.3	136.0	1a
114	0.550	0.00	0.00	2.86	11.35	13386.8	76.3	157.0	1a
115	0.550	0.00	0.00	3.37	11.56	13712.8	87.3	179.8	1a
116	0.550	0.00	0.00	3.58	11.49	13781.9	97.0	200.0	1a
117	0.550	0.00	0.00	3.59	11.21	13677.2	104.3	215.0	1a
118	0.550	0.00	0.00	3.39	10.74	13396.5	110.2	226.8	1a
119	0.550	0.00	0.00	3.38	10.62	13341.4	106.3	218.8	1a
120	0.550	0.00	0.00	3.56	11.29	13694.3	100.2	206.6	1a
121	0.550	0.00	0.00	3.36	11.42	13652.7	88.5	182.3	1a
122	0.550	0.00	0.00	2.86	11.29	13361.3	76.5	157.4	1a
123	0.550	0.00	0.00	2.09	10.92	12829.1	66.1	135.6	1a
124	0.550	0.00	0.00	1.18	10.41	12113.2	58.9	120.6	1a
125	0.550	0.00	0.00	0.93	7.00	10213.1	67.8	137.9	1a
126	0.550	0.00	0.00	1.73	7.37	10940.5	74.2	151.4	1a
127	0.550	0.00	0.00	2.28	7.58	11374.4	82.3	168.2	1a
128	0.550	0.00	0.00	2.51	7.50	11466.2	94.7	193.7	1a
129	0.550	0.00	0.00	2.35	7.12	11175.0	104.0	212.6	1a
130	0.550	0.00	0.00	1.99	6.26	10472.1	108.9	222.0	1a
131	0.550	0.00	0.00	1.98	5.35	9926.4	114.3	232.7	1a
132	0.550	0.00	0.00	1.86	5.06	9656.2	115.1	234.2	1a

bv sko energo trafo
grundplatte 2

B 25	h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50	0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q
133	0.550	0.00	0.00	1.75	5.43	9817.1	113.4	230.8	1a
134	0.550	0.00	0.00	2.11	6.14	10479.9	113.4	231.3	1a
135	0.550	0.00	0.00	2.23	6.80	10932.5	110.6	225.9	1a
136	0.550	0.00	0.00	2.43	7.40	11370.5	103.9	212.5	1a
137	0.550	0.00	0.00	2.54	7.62	11540.0	94.9	194.2	1a
138	0.550	0.00	0.00	2.27	7.60	11378.5	82.1	167.9	1a
139	0.550	0.00	0.00	1.73	7.38	10941.9	73.1	149.2	1a
140	0.550	0.00	0.00	3.00	9.98	12890.1	109.7	225.4	1a
141	0.550	0.00	0.00	2.89	8.72	12271.8	105.7	216.9	1a
142	0.550	0.00	0.00	1.07	7.30	10481.0	69.7	141.9	1a
143	0.550	0.21	0.00	0.69	3.05	7180.9	102.7	207.3	1a
144	0.550	0.00	0.00	2.40	4.17	9440.1	53.0	107.8	1a
145	0.550	1.36	0.00	2.22	4.40	9467.2	74.8	152.2	1a
146	0.550	9.17	8.66	2.33	8.66	3552.6	262.1	569.7	9.5
		4.80	0.80	0.00	2.18	8640.9			8.9 -
147	0.550	8.28	7.68	3.15	7.68	3253.6	282.0	613.1	10.2
		2.93	0.00	0.00	1.16	6292.5			9.5 -
148	0.550	0.00	0.00	3.61	3.54	9833.0	96.9	197.3	1a
149	0.550	0.00	0.00	5.19	3.62	10835.3	65.4	133.7	1a
150	0.550	0.00	0.00	5.18	3.61	10827.4	65.2	133.3	1a
151	0.550	0.00	0.00	3.59	3.53	9810.4	97.2	198.0	1a
152	0.550	8.34	7.70	3.18	7.70	3273.0	283.8	617.0	10.3
		2.97	0.00	0.00	1.14	6330.0			9.5 -
153	0.550	9.28	8.65	2.36	8.65	3589.3	262.9	571.5	9.5
		4.87	0.84	0.00	2.16	8726.5			8.9 -
154	0.550	1.41	0.00	2.19	4.40	9449.0	75.5	153.5	1a
155	0.550	0.00	0.00	2.39	4.21	9458.2	53.3	108.5	1a
156	0.550	0.21	0.00	0.71	3.08	7226.7	101.9	205.8	1a
157	0.550	0.00	0.00	1.08	7.32	10501.6	69.8	142.2	1a
158	0.550	0.18	0.00	2.26	7.98	11565.0	73.2	149.8	1a
159	0.550	1.20	0.00	2.36	8.59	11919.2	105.8	216.7	1a
160	0.550	1.73	0.00	1.07	8.86	11310.1	132.7	270.8	1b
161	0.550	0.00	0.00	0.84	7.82	10624.7	141.0	287.1	1b
162	0.550	0.00	0.00	3.89	7.97	12436.6	127.1	260.9	1b
163	0.550	0.00	0.00	5.28	7.72	13005.0	87.9	181.0	1a
164	0.550	0.00	0.00	5.28	7.70	12995.6	87.2	179.4	1a
165	0.550	0.00	0.00	3.89	7.93	12418.1	126.4	259.5	1b
166	0.550	0.00	0.00	0.86	7.82	10638.8	140.8	286.7	1b
167	0.550	1.68	0.00	1.11	8.87	11340.6	131.9	269.3	1b
168	0.550	1.15	0.00	2.38	8.60	11938.7	105.5	216.0	1a
169	0.550	0.15	0.00	2.25	7.96	11552.1	73.6	150.5	1a
170	0.600	0.00	0.00	0.49	14.26	12790.1	18.9	35.2	1a
171	0.600	0.00	0.00	0.44	13.85	12614.2	26.8	49.9	1a
172	0.600	0.00	0.00	1.18	14.75	13294.4	41.6	77.6	1a
173	0.600	0.00	0.00	2.47	15.87	14229.1	60.6	113.8	1a
174	0.600	0.00	0.00	3.85	16.86	15084.4	53.3	100.4	1a
175	0.600	0.00	0.00	5.02	17.67	15741.6	42.7	80.7	1a
176	0.600	0.00	0.00	5.92	18.21	16200.5	35.7	67.6	1a

Prog.: PL REV. 5.60

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Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
grundplatte 2

B 25		h'1o	h'2o	h'1u	h'2u	phi1-o	phi2-o	phi1-u	phi2-u	theta
BST 420/50		0.040	0.050	0.040	0.050	0.0	90.0	0.0	90.0	45.0
ELEM	dm	As1-o	As2-o	As1-u	As2-u	Sig-b	Q-max	Tau-max	As-q	
177	0.600	0.00	0.00	6.30	18.30	16349.6	31.7	60.0	1a	
178	0.600	0.00	0.00	6.31	18.31	16359.5	31.8	60.3	1a	
179	0.600	0.00	0.00	5.93	18.22	16206.1	36.1	68.4	1a	
180	0.600	0.00	0.00	5.00	17.68	15738.7	43.2	81.7	1a	
181	0.600	0.00	0.00	3.83	16.87	15080.1	53.6	101.0	1a	
182	0.600	0.00	0.00	2.45	15.88	14224.9	60.7	113.9	1a	
183	0.600	0.00	0.00	1.17	14.76	13294.0	41.6	77.7	1a	
184	0.600	0.00	0.00	0.44	13.86	12618.7	26.8	49.9	1a	
185	0.600	0.00	0.00	0.48	14.25	12779.4	18.8	35.1	1a	
186	0.600	0.00	0.00	1.26	15.10	13453.7	35.7	66.7	1a	
187	0.600	0.00	0.00	2.74	16.31	14478.1	55.6	104.5	1a	
188	0.600	0.00	0.00	4.37	17.52	15463.5	45.6	86.1	1a	
189	0.600	0.00	0.00	5.47	18.38	16087.5	32.6	61.8	1a	
190	0.600	0.00	0.00	6.06	18.79	16391.4	23.9	45.4	1a	
191	0.600	0.00	0.00	6.21	18.82	16448.6	19.5	36.9	1a	
192	0.600	0.00	0.00	6.20	18.80	16441.0	20.5	38.8	1a	
193	0.600	0.00	0.00	6.04	18.75	16378.2	24.4	46.3	1a	
194	0.600	0.00	0.00	5.47	18.35	16079.3	32.1	60.7	1a	
195	0.600	0.00	0.00	4.38	17.51	15464.8	45.4	85.6	1a	
196	0.600	0.00	0.00	2.75	16.30	14480.2	55.5	104.3	1a	
197	0.600	0.00	0.00	1.28	15.11	13462.0	35.6	66.6	1a	

Prog.: PL REV. 5.60 Datum:97/09/30 Zeit:10:56 Seite: 18
 Autor:** TDV-Graz-AUSTRIA **
 Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
 grundplatte 2

BEMESSUNG NACH DIN 1045
 Kraefte von uelag
 Ergebnisdatei bew
 Sicherheitsfaktor..... 1.75

B 25	b-st	h-st	b-pl	h-pl	h'lo	h'lu	h'bo	h'bu	h'b
BST 420/50	0.300	7.450	0.300	0.550	0.035	0.035	0.000	*****	0.000

ELEM	As-o	As-u	Tau-Q	As-q	As-qmi	IBE	Tau-Mt	As-Mt	As-qg
201	0.00	0.21	70.1	0.35	0.35	1	9.9	0.00	0.35
202	0.00	0.56	39.4	0.20	0.20	1	38.6	0.00	0.20
203	0.00	0.73	9.8	0.05	0.05	1	71.4	0.00	0.05
204	0.00	0.72	21.5	0.11	0.11	1	95.7	0.00	0.11
205	0.00	0.51	54.7	0.27	0.27	1	106.6	0.00	0.27
206	0.00	0.09	91.2	0.46	0.46	1	97.6	0.00	0.46
207	0.00	0.14	100.2	0.50	0.50	1	66.3	0.00	0.50
208	0.00	0.67	60.6	0.30	0.30	1	39.5	0.00	0.30
209	0.00	0.92	19.4	0.10	0.10	1	16.6	0.00	0.10
210	0.00	0.92	20.6	0.10	0.10	1	9.7	0.00	0.10
211	0.00	0.66	59.8	0.30	0.30	1	37.5	0.00	0.30
212	0.00	0.14	99.5	0.50	0.50	1	67.1	0.00	0.50
213	0.00	0.09	91.4	0.46	0.46	1	99.1	0.00	0.46
214	0.00	0.51	54.7	0.27	0.27	1	107.9	0.00	0.27
215	0.00	0.72	21.5	0.11	0.11	1	96.8	0.00	0.11
216	0.00	0.73	9.9	0.05	0.05	1	72.1	0.00	0.05
217	0.00	0.56	39.4	0.20	0.20	1	38.8	0.00	0.20
218	0.00	0.21	70.2	0.35	0.35	1	9.6	0.00	0.35

+ ... Betondruckspannung aus Biegung ueberschritten !

* ... Wechselmoment - Summe : Betonspannung aus Biegung und Bewehrungsaussteifung groesser als zulaessig !

x ... Sicherheit gegen Druckbruch nicht eingehalten !

- ... Horizontalkomponente der Querkraft bei der Biegebemessung nicht beruecksichtigt !

d ... Druckbewehrung

Prog.: PL REV. 5.60

Datum:97/09/30 Zeit:10:56 Seite: 19

Autor:** TDV-Graz-AUSTRIA **

Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

bv sko energo trafo
grundplatte 2

MAX-MIN WERTE AUS DER BEMESSUNG - PLATTE

=====

BEMESSUNGSDATEI	max Fe1o	max Fe2o	max Fe1u	max Fe2u
bew	9.54	8.66	6.31	18.82
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	89	146	178	191
	min Fe1o	min Fe2o	min Fe1u	min Fe2u
	0.00	0.00	0.00	0.00
	IEL(Fe1o)	IEL(Fe2o)	IEL(Fe1u)	IEL(Fe2u)
	1	1	77	82
	max Q	max Tauq	max Feq	max Sigb
	283.8	617.0	10.3	16448.6
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	152	152	152	191
	min Q	min Tauq	min Feq	min Sigb
	4.7	8.8	0.0	2747.9
	IEL(Q)	IEL(Tauq)	IEL(Feq)	IEL(Sigb)
	59	59	1	82

IBE=1 ... Mindestbewehrung fuer Schub
 IBE=2 ... Verminderte Schubdeckung
 IBE=3 ... Volle Schubdeckung
 IBE=4 ... Unzullaessig

Prog.: PL REV. 5.60 Datum:97/09/30 Zeit:10:56 Seite: 20
Autor:** TDV-Graz-AUSTRIA **
Ed.Ast & Co., Baug.m.b.H. **KONSTRUKTIONSBUERO** 8073-Feldkirchen/Graz

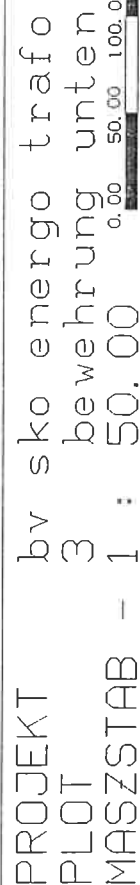
bv sko energo trafo
grundplatte 2

MAX-MIN WERTE AUS DER BEMESSUNG - BALKEN
=====

BEMESSUNGSDATEI	max Feo	max Feu	max Feq	max Femt	max Feges
bew	0.00	0.92	0.50	0.00	0.50
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	201	209	207	201	207
	min Feo	min Feu	min Feq	min Femt	min Feges
	0.00	0.09	0.05	0.00	0.05
	IEL(Feo)	IEL(Feu)	IEL(Feq)	IEL(Femt)	IEL(Feges)
	201	206	203	201	203
	max Tauq	max Taumt			
	100.2	107.9			
	IEL(Tauq)	IEL(Taumt)			
	207	214			
	min Tauq	min Taumt			
	9.8	9.6			
	IEL(Tauq)	IEL(Taumt)			
	203	218			

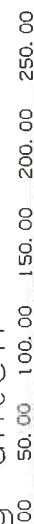
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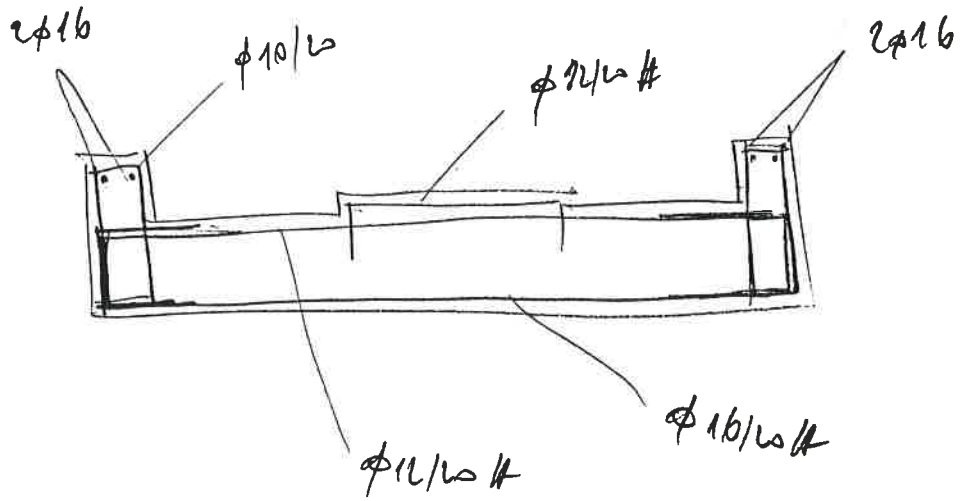
CODE=1b ... Die gesamte Feldbew. bis zu Auflagern durchziehen!

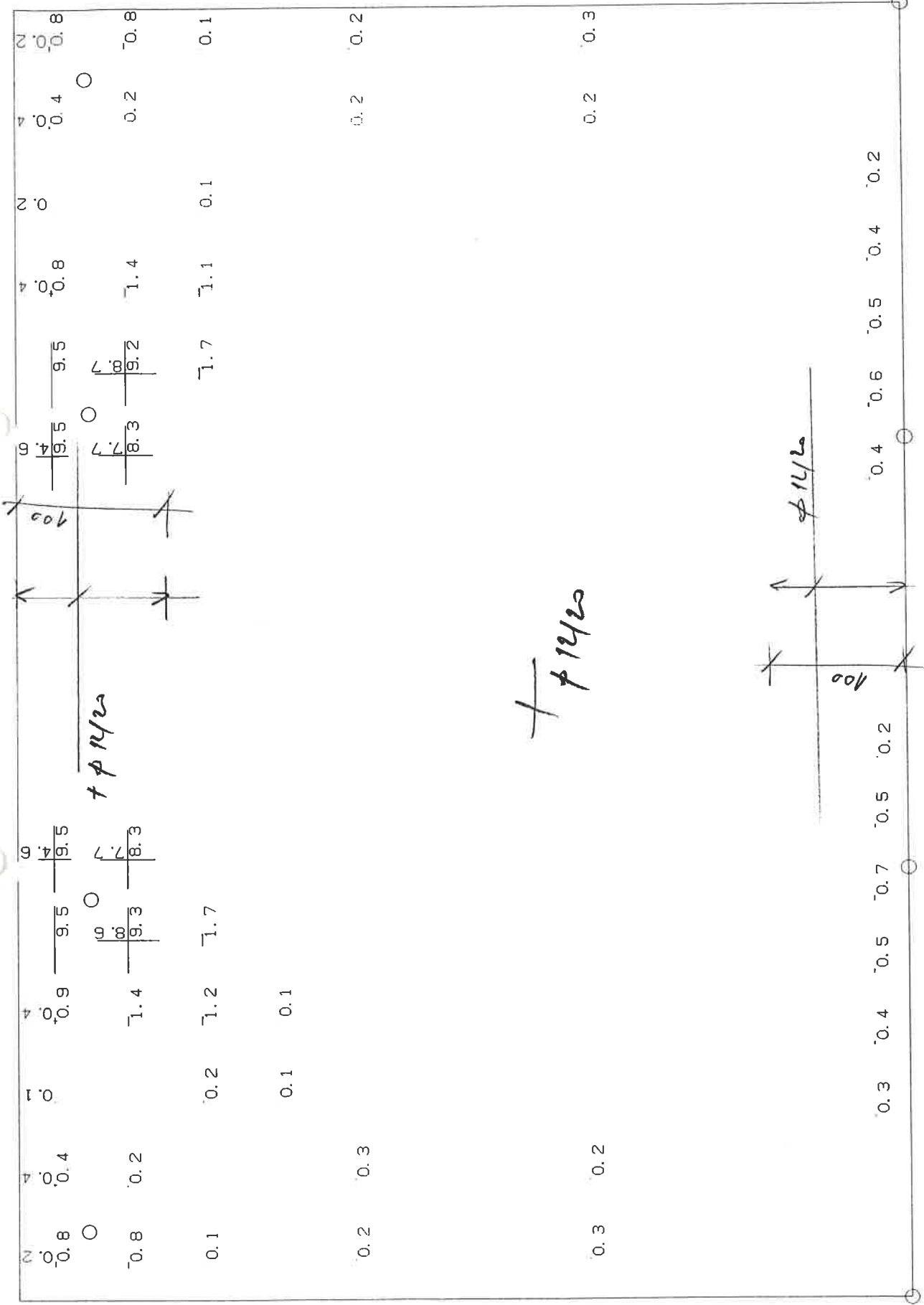


bewehrung unten

MASZTAB - 1 : 50.00







PROJEKT bv sko energo trafo
PLOT 2 bewehrung oben
MASZSTAB - 1 : 50.00 0.00 50.00 100.00 150.00 200.00 250.00

