

/ K-014

## Data : 03.2008

WYKAZ	STALI	ZBROJENIOWEJ	Klasa	stali: BST	500 SA	
Poz.	szt.	d	Długość	całk.dł	masa(kg)	
1	449	8	1.40	628.60	248.297	
2	449	8	2.65	1189.85	469.991	
3	143	10	2.85	407.55	251.458	
4	143	10	2.80	400.40	247.047	
5	143	12	4.45	636.35	565.079	
6	11	12	4.95	54.45	48.352	
7	11	10	2.95	32.45	20.022	
8	22	10	3.25	71.50	44.115	
9	11	10	2.95	32.45	20.022	
10	22	10	2.50	55.00	33.935	średnio
11	22	12	2.50	55.00	48.840	średnio
12	52	10	2.16	112.32	69.301	
13	12	12	1.45	17.40	15.451	
14	11	10	4.75	52.25	32.238	
15	11	12	4.60	50.60	44.933	
16	66	10	3.52	232.32	143.341	średnio
17	66	12	2.63	173.58	154.139	średnio
18	88	12	2.14	188.32	167.228	średnio
19	88	10	2.08	183.04	112.936	średnio
20	77	10	1.30	100.10	61.762	średnio
21	77	10	1.77	136.29	84.091	średnio
22	77	10	2.06	158.62	97.869	średnio
23	77	12	2.44	187.88	166.837	średnio
24	11	10	0.97	10.67	6.583	średnio
25	11	12	1.46	16.06	14.261	średnio
26	11	10	1.69	18.59	11.470	średnio
27	11	12	2.15	23.65	21.001	średnio
28	193	12	3.55	685.15	608.413	
29	199	10	3.45	686.55	423.601	
30	11	12	5.40	59.40	52.747	
31	777	8	1.36	1056.72	417.404	
32	98	14	2.95	289.10	349.811	
33	808	8	1.30	1050.40	414.908	
34	808	8	2.55	2060.40	813.858	
35	18	12	1.35	24.30	21.578	
36	30	12	4.95	148.50	131.868	
37	30	10	5.05	151.50	93.475	
38	30	12	1.75	52.50	46.620	
39	30	10	1.25	37.50	23.137	
40	30	10	3.80	114.00	70.338	
41	30	12	3.05	91.50	81.252	
42	30	12	3.40	102.00	90.576	
43	30	10	3.15	94.50	58.306	
44	378	10	3.20	1209.60	746.323	
45	320	12	3.30	1056.00	937.728	
46	30	10	1.80	54.00	33.318	
47	30	12	1.90	57.00	50.616	
48	260	10	2.80	728.00	449.176	
49	260	10	2.95	767.00	473.239	
50	260	12	4.35	1131.00	1004.328	
51	160	10	1.75	280.00	172.760	
52	130	12	1.95	253.50	225.108	
53	130	12	2.40	312.00	277.056	
54	130	10	2.70	351.00	216.567	
55	130	10	1.15	149.50	92.241	
56	130	12	1.85	240.50	213.564	
57	130	12	2.30	299.00	265.512	
58	130	10	2.10	273.00	168.441	
59	30	12	2.55	76.50	67.932	
60	30	10	2.55	76.50	47.200	
61	161	14	2.75	442.75	535.728	
62	30	12	1.85	55.50	49.284	

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**Całk. ilość stali**

<b>d(mm)</b>	<b>całk.dł</b>	<b>kg/m</b>	<b>masa(kg)</b>
8	5985.97	0.395	2364.458
10	6976.20	0.617	4304.315
12	6047.64	0.888	5370.304
14	731.85	1.210	885.539

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masa całk. (kg) 12924.616  
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### Dane projektu

Tytuł : wydział Biologii Uniwersytetu Gdańskiego  
Element : Biegi i podesty, P0 - P5  
Inwestor : Uniwersytet Gdański, 80-952 Gdańsk ul. Jana Bażyńskiego 1A  
Rys Nr : K-014  
Data : 03.2008

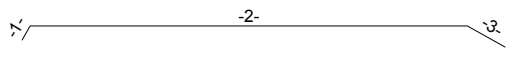
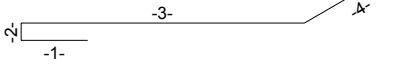
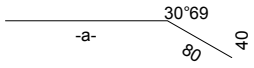
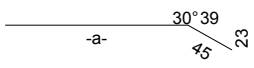
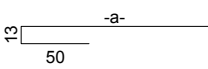
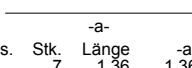
### WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	dbz	Typ	forma gięcia	suma dł.	ciężar kg
1	449	8	1.40		A1		628.60	248.297
2	449	8	2.65		A4		1189.85	469.991
3	143	10	2.85		C1		407.55	251.458
4	143	10	2.80		C1		400.40	247.047
5	143	12	4.45		C1		636.35	565.079
6	11	12	4.95		C1		54.45	48.352
7	11	10	2.95		C1		32.45	20.022
8	22	10	3.25		C1		71.50	44.115
9	11	10	2.95		C1		32.45	20.022
10	22	10	2.50		A3	 Pos. Stk. Länge -a- 1 4 2.44 1.60 2 4 2.47 1.63 3 4 2.49 1.65 4 4 2.52 1.68 5 4 2.54 1.70 6 2 2.57 1.73	55.00	33.935
11	22	12	2.50		A3	 Pos. Stk. Länge -a- 1 4 2.44 1.60 2 4 2.47 1.63 3 4 2.49 1.65 4 4 2.52 1.68 5 4 2.54 1.70 6 2 2.57 1.73	55.00	48.840
12	52	10	2.16		B1	 dług. haków=10.0	112.32	69.301
13	12	12	1.45		A1		17.40	15.451
14	11	10	4.75		X1	 Nr. dx dy l >° 1 0.09 0.16 0.18 -60 2 3.97 0.00 3.97 -30 3 0.51 -0.30 0.60	52.25	32.238

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WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	obr ds	Typ	forma gięcia	suma dł.	ciężar kg
15	11	12	4.60		X1	 Nr.    dx    dy    l    >° 1    0.08    0.14    0.16    -60 2    4.04    0.00    4.04    -30 3    0.35    -0.20    0.40	50.60	44.933
16	66	10	3.52		X1	 Nr.    dx    dy    l    >° 1    -0.50    0.00    0.50    -90 2    0.00    0.13    0.13    -90 3    2.13    0.00    2.13    30 4    0.72    0.42    0.83	232.32	143.341
17	66	12	2.63		C1	 Pos.    Stk.    Länge    -a- 1    6    2.57    1.76 2    6    2.58    1.78 3    6    2.59    1.79 4    6    2.60    1.80 5    6    2.61    1.81 6    6    2.63    1.83 7    6    2.64    1.84 8    6    2.65    1.85 9    6    2.66    1.86 10    6    2.68    1.88 11    6    2.69    1.89	173.58	154.139
18	88	12	2.14		C1	 Pos.    Stk.    Länge    -a- 1    8    2.08    1.63 2    8    2.09    1.64 3    8    2.11    1.65 4    8    2.12    1.67 5    8    2.13    1.68 6    8    2.14    1.69 7    8    2.16    1.71 8    8    2.17    1.72 9    8    2.18    1.73 10    8    2.19    1.74 11    8    2.21    1.76	188.32	167.228
19	88	10	2.08		A3	 Pos.    Stk.    Länge    -a- 1    8    2.01    1.38 2    8    2.03    1.39 3    8    2.04    1.41 4    8    2.05    1.42 5    8    2.06    1.43 6    8    2.08    1.45 7    8    2.09    1.46 8    8    2.10    1.47 9    8    2.11    1.48 10    8    2.13    1.50 11    8    2.14    1.51	183.04	112.936
20	77	10	1.30		A1	 Pos.    Stk.    Länge    -a- 1    7    1.36    1.36 2    7    1.35    1.35 3    7    1.34    1.34 4    7    1.32    1.32 5    7    1.31    1.31 6    7    1.30    1.30 7    7    1.29    1.29 8    7    1.27    1.27	100.10	61.762

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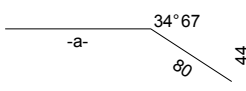
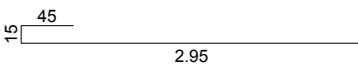
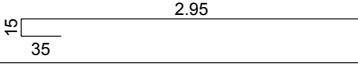
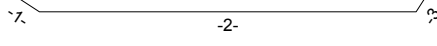
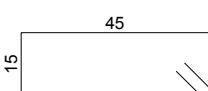
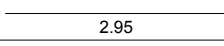
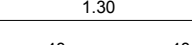
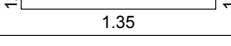
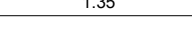

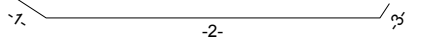
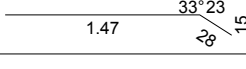
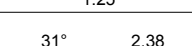
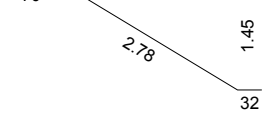
WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	dbr ds	Typ	forma gięcia	suma dł.	ciężar kg
20						<div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>9</div> <div>7</div> <div>1.26</div> <div>1.26</div> </div> <div> <div>10</div> <div>7</div> <div>1.25</div> <div>1.25</div> </div> <div> <div>11</div> <div>7</div> <div>1.24</div> <div>1.24</div> </div> </div>		
21	77	10	1.77		C1	<div> <div> <div> <div>30°26</div> <div>15</div> </div> <div>-a-</div> </div> <div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>7</div> <div>1.84</div> <div>1.54</div> </div> <div> <div>2</div> <div>7</div> <div>1.82</div> <div>1.52</div> </div> <div> <div>3</div> <div>7</div> <div>1.81</div> <div>1.51</div> </div> <div> <div>4</div> <div>7</div> <div>1.80</div> <div>1.50</div> </div> <div> <div>5</div> <div>7</div> <div>1.79</div> <div>1.49</div> </div> <div> <div>6</div> <div>7</div> <div>1.77</div> <div>1.47</div> </div> <div> <div>7</div> <div>7</div> <div>1.76</div> <div>1.46</div> </div> <div> <div>8</div> <div>7</div> <div>1.75</div> <div>1.45</div> </div> <div> <div>9</div> <div>7</div> <div>1.74</div> <div>1.44</div> </div> <div> <div>10</div> <div>7</div> <div>1.72</div> <div>1.42</div> </div> <div> <div>11</div> <div>7</div> <div>1.71</div> <div>1.41</div> </div> </div> </div>	136.29	84.091
22	77	10	2.06		C1	<div> <div> <div> <div>30°22</div> <div>13</div> </div> <div>-a-</div> </div> <div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>7</div> <div>1.93</div> <div>1.68</div> </div> <div> <div>2</div> <div>7</div> <div>1.91</div> <div>1.66</div> </div> <div> <div>3</div> <div>7</div> <div>1.90</div> <div>1.65</div> </div> <div> <div>4</div> <div>7</div> <div>2.15</div> <div>1.90</div> </div> <div> <div>5</div> <div>7</div> <div>2.14</div> <div>1.89</div> </div> <div> <div>6</div> <div>7</div> <div>2.13</div> <div>1.88</div> </div> <div> <div>7</div> <div>7</div> <div>2.12</div> <div>1.87</div> </div> <div> <div>8</div> <div>7</div> <div>2.11</div> <div>1.86</div> </div> <div> <div>9</div> <div>7</div> <div>2.09</div> <div>1.84</div> </div> <div> <div>10</div> <div>7</div> <div>2.08</div> <div>1.83</div> </div> <div> <div>11</div> <div>7</div> <div>2.07</div> <div>1.82</div> </div> </div> </div>	158.62	97.869
23	77	12	2.44		C1	<div> <div> <div> <div>30°69</div> <div>40</div> </div> <div>-a-</div> </div> <div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>7</div> <div>2.31</div> <div>1.51</div> </div> <div> <div>2</div> <div>7</div> <div>2.30</div> <div>1.50</div> </div> <div> <div>3</div> <div>7</div> <div>2.29</div> <div>1.49</div> </div> <div> <div>4</div> <div>7</div> <div>2.54</div> <div>1.74</div> </div> <div> <div>5</div> <div>7</div> <div>2.53</div> <div>1.73</div> </div> <div> <div>6</div> <div>7</div> <div>2.52</div> <div>1.72</div> </div> <div> <div>7</div> <div>7</div> <div>2.50</div> <div>1.70</div> </div> <div> <div>8</div> <div>7</div> <div>2.49</div> <div>1.69</div> </div> <div> <div>9</div> <div>7</div> <div>2.48</div> <div>1.68</div> </div> <div> <div>10</div> <div>7</div> <div>2.46</div> <div>1.66</div> </div> <div> <div>11</div> <div>7</div> <div>2.45</div> <div>1.65</div> </div> </div> </div>	187.88	166.837
24	11	10	0.97		A1	<div> <div> <div> <div>-a-</div> </div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>1</div> <div>1.03</div> <div>1.03</div> </div> <div> <div>2</div> <div>1</div> <div>1.02</div> <div>1.02</div> </div> <div> <div>3</div> <div>1</div> <div>1.00</div> <div>1.00</div> </div> <div> <div>4</div> <div>1</div> <div>0.99</div> <div>0.99</div> </div> <div> <div>5</div> <div>1</div> <div>0.98</div> <div>0.98</div> </div> <div> <div>6</div> <div>1</div> <div>0.97</div> <div>0.97</div> </div> <div> <div>7</div> <div>1</div> <div>0.95</div> <div>0.95</div> </div> <div> <div>8</div> <div>1</div> <div>0.94</div> <div>0.94</div> </div> <div> <div>9</div> <div>1</div> <div>0.93</div> <div>0.93</div> </div> <div> <div>10</div> <div>1</div> <div>0.92</div> <div>0.92</div> </div> <div> <div>11</div> <div>1</div> <div>0.90</div> <div>0.90</div> </div> </div> </div>	10.67	6.583
25	11	12	1.46		C1	<div> <div> <div> <div>33°25</div> <div>17</div> </div> <div>-a-</div> </div> <div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>1</div> <div>1.52</div> <div>1.22</div> </div> <div> <div>2</div> <div>1</div> <div>1.51</div> <div>1.21</div> </div> <div> <div>3</div> <div>1</div> <div>1.50</div> <div>1.20</div> </div> <div> <div>4</div> <div>1</div> <div>1.49</div> <div>1.18</div> </div> <div> <div>5</div> <div>1</div> <div>1.47</div> <div>1.17</div> </div> <div> <div>6</div> <div>1</div> <div>1.46</div> <div>1.16</div> </div> <div> <div>7</div> <div>1</div> <div>1.45</div> <div>1.15</div> </div> <div> <div>8</div> <div>1</div> <div>1.43</div> <div>1.13</div> </div> <div> <div>9</div> <div>1</div> <div>1.42</div> <div>1.12</div> </div> <div> <div>10</div> <div>1</div> <div>1.41</div> <div>1.11</div> </div> <div> <div>11</div> <div>1</div> <div>1.40</div> <div>1.10</div> </div> </div> </div>	16.06	14.261
26	11	10	1.69		C1	<div> <div> <div> <div>34°17</div> <div>11</div> </div> <div>-a-</div> </div> <div> <div> <div>Pos.</div> <div>Stk.</div> <div>Länge</div> <div>-a-</div> </div> <div> <div>1</div> <div>1</div> <div>1.56</div> <div>1.36</div> </div> <div> <div>2</div> <div>1</div> <div>1.54</div> <div>1.34</div> </div> <div> <div>3</div> <div>1</div> <div>1.53</div> <div>1.33</div> </div> <div> <div>4</div> <div>1</div> <div>1.78</div> <div>1.59</div> </div> <div> <div>5</div> <div>1</div> <div>1.77</div> <div>1.57</div> </div> <div> <div>6</div> <div>1</div> <div>1.76</div> <div>1.56</div> </div> </div> </div>	18.59	11.470

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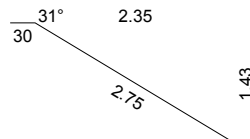
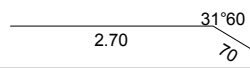
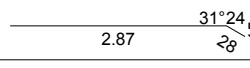


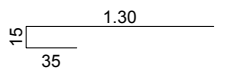
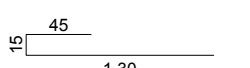
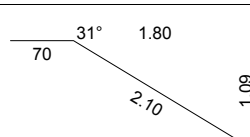
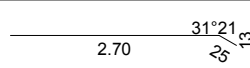
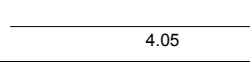
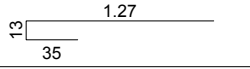
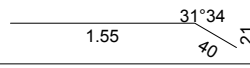
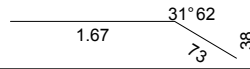

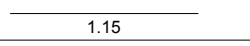
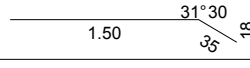
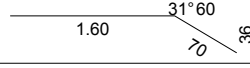
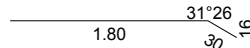
WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	dbr ds	Typ	forma gięcia	suma dł.	ciężar kg
26						<div>Pos. Stk. Länge -a-</div> <div>7 1 1.75 1.55</div> <div>8 1 1.73 1.53</div> <div>9 1 1.72 1.52</div> <div>10 1 1.71 1.51</div> <div>11 1 1.70 1.50</div>		
27	11	12	2.15		C1	 <div>Pos. Stk. Länge -a-</div> <div>1 1 2.02 1.22</div> <div>2 1 2.00 1.20</div> <div>3 1 1.99 1.19</div> <div>4 1 2.24 1.44</div> <div>5 1 2.23 1.43</div> <div>6 1 2.22 1.42</div> <div>7 1 2.20 1.40</div> <div>8 1 2.19 1.39</div> <div>9 1 2.18 1.38</div> <div>10 1 2.17 1.37</div> <div>11 1 2.15 1.36</div>	23.65	21.001
28	193	12	3.55		A3		685.15	608.413
29	199	10	3.45		A3		686.55	423.601
30	11	12	5.40		X1	 <div>Nr. dx dy l v°</div> <div>1 0.34 -0.22 0.40 33</div> <div>2 4.78 -0.00 4.78 57</div> <div>3 0.12 0.18 0.22</div>	59.40	52.747
31	777	8	1.36		B1	 <div>dług. haków=8.0</div>	1056.72	417.404
32	98	14	2.95		A1		289.10	349.811
33	808	8	1.30		A1		1050.40	414.908
34	808	8	2.55		A4		2060.40	813.858
35	18	12	1.35		A1		24.30	21.578
36	30	12	4.95		X1	 <div>Nr. dx dy l v°</div> <div>1 0.11 0.17 0.20 -57</div> <div>2 4.36 0.00 4.35 -33</div> <div>3 0.33 -0.22 0.40</div>	148.50	131.868
37	30	10	5.05		X1	 <div>Nr. dx dy l v°</div> <div>1 0.50 -0.33 0.60 33</div> <div>2 4.23 0.00 4.23 57</div> <div>3 0.12 0.18 0.22</div>	151.50	93.475
38	30	12	1.75		C1		52.50	46.620
39	30	10	1.25		A1		37.50	23.137
40	30	10	3.80		C2		114.00	70.338

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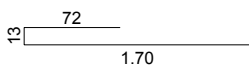
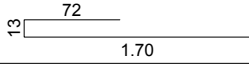
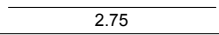
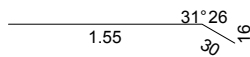
WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	db ds	Typ	forma gięcia	suma dł.	ciężar kg																									
41	30	12	3.05		C1		91.50	81.252																									
42	30	12	3.40		C1		102.00	90.576																									
43	30	10	3.15		C1		94.50	58.306																									
44	378	10	3.20		A3		1209.60	746.323																									
45	320	12	3.30		A3		1056.00	937.728																									
46	30	10	1.80		A3		54.00	33.318																									
47	30	12	1.90		A3		57.00	50.616																									
48	260	10	2.80		C1		728.00	449.176																									
49	260	10	2.95		C1		767.00	473.239																									
50	260	12	4.35		C1		1131.00	1004.328																									
51	160	10	1.75		A3		280.00	172.760																									
52	130	12	1.95		C1		253.50	225.108																									
53	130	12	2.40		C1		312.00	277.056																									
54	130	10	2.70		X1	<div></div> <div><table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>γ°</th></tr><tr><td>1</td><td>0.26</td><td>0.16</td><td>0.30</td><td>31</td></tr><tr><td>2</td><td>1.92</td><td>0.00</td><td>1.92</td><td>90</td></tr><tr><td>3</td><td>0.00</td><td>0.13</td><td>0.13</td><td>90</td></tr><tr><td>4</td><td>-0.35</td><td>0.00</td><td>0.35</td><td></td></tr></table></div>	Nr.	dx	dy	l	γ°	1	0.26	0.16	0.30	31	2	1.92	0.00	1.92	90	3	0.00	0.13	0.13	90	4	-0.35	0.00	0.35		351.00	216.567
Nr.	dx	dy	l	γ°																													
1	0.26	0.16	0.30	31																													
2	1.92	0.00	1.92	90																													
3	0.00	0.13	0.13	90																													
4	-0.35	0.00	0.35																														
55	130	10	1.15		A1		149.50	92.241																									
56	130	12	1.85		C1		240.50	213.564																									
57	130	12	2.30		C1		299.00	265.512																									
58	130	10	2.10		C1		273.00	168.441																									

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WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

Poz.	Szt.	d	długość	obr ds	Typ	forma gięcia	suma dł.	ciężar kg
59	30	12	2.55		A3		76.50	67.932
60	30	10	2.55		A3		76.50	47.200
61	161	14	2.75		A1		442.75	535.728
62	30	12	1.85		C1		55.50	49.284

masa całk. (kg) 12924.616