

Projekt: 2007-052 wydział Biologii Uniwersytetu Gdańskiego

/ K-211

### Dane projektu

Tytuł : wydział Biologii Uniwersytetu Gdańskiego  
Element : Podciągi fasadowe w poz. P-2 w osi A-F/2-4, I-M/2-  
Inwestor : Uniwersytet Gdański, 80-952 Gdańsk ul. Jana Bażyńskiego 1A  
Rys Nr : K-211  
Data : 31.03.2008

| WYKAZ STALI ZBROJENIOWEJ Klasa stali: BST 500 SA |      |    |         |         |          |
|--|------|----|---------|---------|----------|
| Poz.   | szt. | d  | długość | całk.dł | masa(kg) |
| 1  | 12   | 20 | 5.60    | 67.20   | 165.984  |
| 2  | 6    | 20 | 6.80    | 40.80   | 100.776  |
| 3  | 4    | 14 | 12.00   | 48.00   | 58.080   |
| 4  | 4    | 14 | 6.70    | 26.80   | 32.428   |
| 5  | 218  | 8  | 3.70    | 806.60  | 318.607  |
| 6  | 88   | 8  | 12.00   | 1056.00 | 417.120  |
| 7  | 106  | 8  | 5.10    | 540.60  | 213.537  |
| 8  | 12   | 20 | 9.40    | 112.80  | 278.616  |
| 9  | 12   | 20 | 9.40    | 112.80  | 278.616  |
| 10   | 14   | 14 | 2.40    | 33.60   | 40.656   |
| 11   | 191  | 8  | 1.30    | 248.30  | 98.079   |
| 12   | 218  | 8  | 3.40    | 741.20  | 292.774  |
| 13   | 218  | 8  | 2.80    | 610.40  | 241.108  |
| 14   | 218  | 8  | 1.23    | 268.14  | 105.915  |
| 15   | 218  | 8  | 0.78    | 170.04  | 67.166   |
| 16   | 12   | 16 | 5.45    | 65.40   | 103.332  |
| 17   | 6    | 16 | 6.60    | 39.60   | 62.568   |
| 18   | 40   | 12 | 5.35    | 214.00  | 190.032  |
| 19   | 20   | 12 | 6.40    | 128.00  | 113.664  |
| 20   | 16   | 14 | 9.40    | 150.40  | 181.984  |
| 21   | 4    | 20 | 8.00    | 32.00   | 79.040   |
| 22   | 6    | 20 | 7.20    | 43.20   | 106.704  |
| 23   | 2    | 14 | 7.50    | 15.00   | 18.150   |
| 24   | 16   | 8  | 6.50    | 104.00  | 41.080   |
| 25   | 3    | 20 | 7.90    | 23.70   | 58.539   |
| 26   | 6    | 16 | 4.60    | 27.60   | 43.608   |
| 27   | 68   | 8  | 3.62    | 246.16  | 97.233   |
| 28   | 4    | 8  | 2.30    | 9.20    | 3.634    |
| 29   | 4    | 20 | 8.00    | 32.00   | 79.040   |
| 30   | 94   | 8  | 3.60    | 338.40  | 133.668  |
| 31   | 105  | 8  | 2.70    | 283.50  | 111.983  |
| 32   | 4    | 8  | 3.90    | 15.60   | 6.162    |
| 33   | 4    | 8  | 2.40    | 9.60    | 3.792    |
| 34   | 3    | 20 | 9.30    | 27.90   | 68.913   |
| 35   | 4    | 16 | 5.60    | 22.40   | 35.392   |
| 36   | 4    | 14 | 8.30    | 33.20   | 40.172   |
| 37   | 12   | 8  | 7.30    | 87.60   | 34.602   |
| 38   | 18   | 8  | 8.10    | 145.80  | 57.591   |
| 39   | 3    | 20 | 6.75    | 20.25   | 50.018   |
| 40   | 2    | 14 | 7.25    | 14.50   | 17.545   |
| 41   | 16   | 8  | 3.60    | 57.60   | 22.752   |
| 42   | 3    | 20 | 4.90    | 14.70   | 36.309   |
| 43   | 3    | 20 | 3.90    | 11.70   | 28.899   |
| 44   | 12   | 8  | 4.10    | 49.20   | 19.434   |
| 45   | 12   | 14 | 4.80    | 57.60   | 69.696   |
| 46   | 3    | 20 | 6.60    | 19.80   | 48.906   |
| 47   | 50   | 10 | 2.65    | 132.50  | 81.752   |
| 48   | 2    | 14 | 4.70    | 9.40    | 11.374   |
| 49   | 64   | 12 | 4.70    | 300.80  | 267.110  |
| 50   | 12   | 12 | 4.00    | 48.00   | 42.624   |
| 51   | 2    | 14 | 4.00    | 8.00    | 9.680    |
| 52   | 9    | 12 | 1.45    | 13.05   | 11.588   |
| 53   | 25   | 10 | 1.85    | 46.25   | 28.536   |
| 54   | 3    | 20 | 4.60    | 13.80   | 34.086   |
| 55   | 2    | 14 | 5.20    | 10.40   | 12.584   |
| 56   | 16   | 10 | 2.30    | 36.80   | 22.706   |
| 57   | 16   | 8  | 2.50    | 40.00   | 15.800   |
| 58   | 3    | 20 | 4.40    | 13.20   | 32.604   |
| 59   | 20   | 10 | 1.99    | 39.80   | 24.557   |
| 60   | 10   | 10 | 1.35    | 13.50   | 8.329    |
| 61   | 3    | 20 | 3.30    | 9.90    | 24.453   |
| 62   | 12   | 8  | 3.30    | 39.60   | 15.642   |

średnio

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/ K-211

| WYKAZ STALI ZBROJENIOWEJ Klasa stali: BST 500 SA |      |    |         |         |          |
|--|------|----|---------|---------|----------|
| Poz.   | szt. | d  | Długość | całk.dł | masa(kg) |
| 63   | 12   | 10 | 2.00    | 24.00   | 14.808   |
| 64   | 18   | 8  | 4.20    | 75.60   | 29.862   |
| 65   | 3    | 20 | 5.20    | 15.60   | 38.532   |
| 66   | 4    | 12 | 1.93    | 7.72    | 6.855    |
| 67   | 2    | 14 | 5.20    | 10.40   | 12.584   |
| 68   | 4    | 14 | 3.10    | 12.40   | 15.004   |
| 69   | 16   | 8  | 1.90    | 30.40   | 12.008   |
| 70   | 10   | 8  | 2.50    | 25.00   | 9.875    |
| 71   | 2    | 16 | 4.60    | 9.20    | 14.536   |
| 72   | 3    | 20 | 2.30    | 6.90    | 17.043   |
| 73   | 12   | 8  | 2.40    | 28.80   | 11.376   |
| 74   | 4    | 14 | 3.60    | 14.40   | 17.424   |
| 75   | 18   | 8  | 2.70    | 48.60   | 19.197   |
| 76   | 3    | 20 | 4.20    | 12.60   | 31.122   |
| 77   | 2    | 8  | 1.97    | 3.94    | 1.556    |
| 78   | 2    | 8  | 1.30    | 2.60    | 1.027    |
| 79   | 2    | 14 | 3.50    | 7.00    | 8.470    |
| 80   | 44   | 6  | 0.27    | 11.88   | 2.637    |

średnio

średnio

| Całk. ilość stali |         |       |          |
|-------------------|---------|-------|----------|
| d(mm)             | całk.dł | kg/m  | masa(kg) |
| 6                 | 11.88   | 0.222 | 2.637    |
| 8                 | 6082.48 | 0.395 | 2402.580 |
| 10                | 292.85  | 0.617 | 180.688  |
| 12                | 711.57  | 0.888 | 631.874  |
| 14                | 451.10  | 1.210 | 545.831  |
| 16                | 164.20  | 1.580 | 259.436  |
| 20                | 630.85  | 2.470 | 1558.200 |

masa całk. (kg) 5581.246

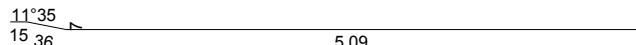
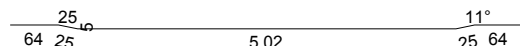
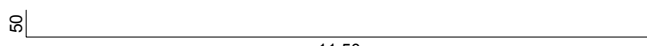
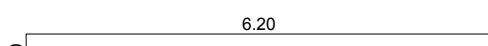
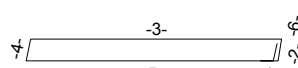
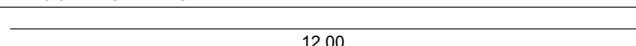
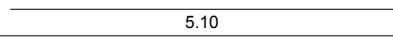
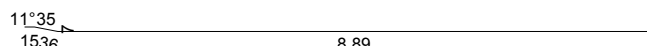
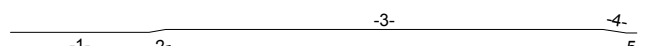
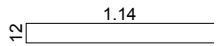
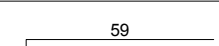
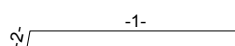
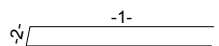
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### Dane projektu

Tytuł : wydział Biologii Uniwersytetu Gdańskiego  
Element : Podciągi fasadowe w poz. P-2 w osi A-F/2-4, I-M/2-  
Inwestor : Uniwersytet Gdański, 80-952 Gdańsk ul. Jana Bażyńskiego 1A  
Rys Nr : K-211  
Data : 31.03.2008

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

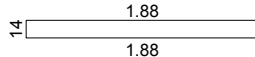

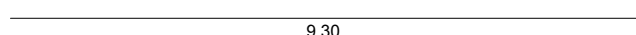
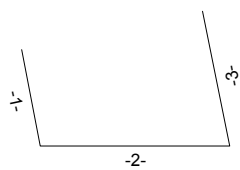
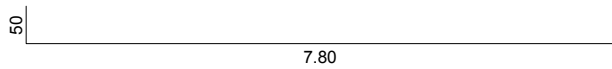
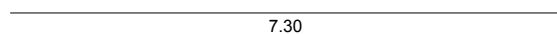
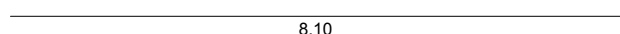
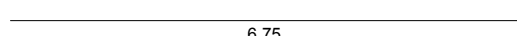
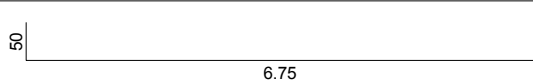
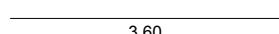
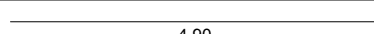
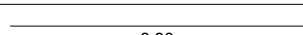
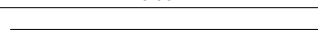
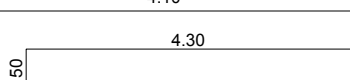
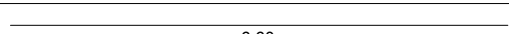
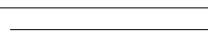

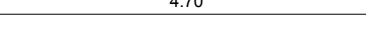
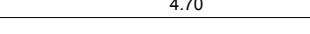
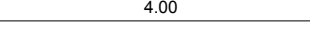
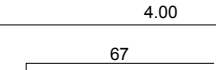
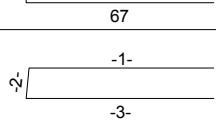
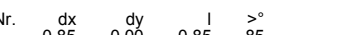
| Poz. | Szt.  | d     | długość | dbr<br>ds | Typ | forma gięcia   | suma dł. | ciężar<br>kg |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
|------|-------|-------|---------|-----------|-----|--|----------|--------------|----|---|----|---|-------|-------|------|----|---|-------|-------|------|-----|---|-------|-------|------|-----|--------|---------|-------|------|-----|---|------|-------|------|----|--------|---------|------|------|--|--------|---------|
| 1    | 12    | 20    | 5.60    |           | C2  |    | 67.20    | 165.984      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 2    | 6     | 20    | 6.80    |           | C3  |    | 40.80    | 100.776      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 3    | 4     | 14    | 12.00   |           | A2  |    | 48.00    | 58.080       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 4    | 4     | 14    | 6.70    |           | A2  |    | 26.80    | 32.428       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 5    | 218   | 8     | 3.70    |           | X1  | <div><table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>0.11</td><td>0.00</td><td>0.11</td><td>79</td></tr><tr><td>2</td><td>0.03</td><td>0.14</td><td>0.13</td><td>101</td></tr><tr><td>3</td><td>-1.60</td><td>0.00</td><td>1.59</td><td>79</td></tr><tr><td>4</td><td>-0.03</td><td>-0.14</td><td>0.13</td><td>101</td></tr><tr><td>5</td><td>1.60</td><td>-0.00</td><td>1.59</td><td>79</td></tr><tr><td>6</td><td>0.02</td><td>0.11</td><td>0.11</td><td></td></tr></table></div> | Nr.      | dx           | dy | l | >° | 1 | 0.11  | 0.00  | 0.11 | 79 | 2 | 0.03  | 0.14  | 0.13 | 101 | 3 | -1.60 | 0.00  | 1.59 | 79  | 4      | -0.03   | -0.14 | 0.13 | 101 | 5 | 1.60 | -0.00 | 1.59 | 79 | 6      | 0.02    | 0.11 | 0.11 |  | 806.60 | 318.607 |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 1    | 0.11  | 0.00  | 0.11    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 2    | 0.03  | 0.14  | 0.13    | 101       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 3    | -1.60 | 0.00  | 1.59    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 4    | -0.03 | -0.14 | 0.13    | 101       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 5    | 1.60  | -0.00 | 1.59    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 6    | 0.02  | 0.11  | 0.11    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 6    | 88    | 8     | 12.00   |           | A1  |    | 1056.00  | 417.120      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 7    | 106   | 8     | 5.10    |           | A1  |   | 540.60   | 213.537      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 8    | 12    | 20    | 9.40    |           | C2  |    | 112.80   | 278.616      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 9    | 12    | 20    | 9.40    |           | X1  | <div><table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>2.08</td><td>0.00</td><td>2.08</td><td>11</td></tr><tr><td>2</td><td>0.25</td><td>0.05</td><td>0.25</td><td>-11</td></tr><tr><td>3</td><td>6.56</td><td>0.00</td><td>6.56</td><td>-11</td></tr><tr><td>4</td><td>0.35</td><td>-0.07</td><td>0.36</td><td>11</td></tr><tr><td>5</td><td>0.15</td><td>0.00</td><td>0.15</td><td></td></tr></table></div>  | Nr.      | dx           | dy | l | >° | 1 | 2.08  | 0.00  | 2.08 | 11 | 2 | 0.25  | 0.05  | 0.25 | -11 | 3 | 6.56  | 0.00  | 6.56 | -11 | 4      | 0.35    | -0.07 | 0.36 | 11  | 5 | 0.15 | 0.00  | 0.15 |    | 112.80 | 278.616 |      |      |  |        |         |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 1    | 2.08  | 0.00  | 2.08    | 11        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 2    | 0.25  | 0.05  | 0.25    | -11       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 3    | 6.56  | 0.00  | 6.56    | -11       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 4    | 0.35  | -0.07 | 0.36    | 11        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 5    | 0.15  | 0.00  | 0.15    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 10   | 14    | 14    | 2.40    |           | A3  |   | 33.60    | 40.656       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 11   | 191   | 8     | 1.30    |           | A3  |   | 248.30   | 98.079       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 12   | 218   | 8     | 3.40    |           | X1  | <div><table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>-1.63</td><td>-0.00</td><td>1.63</td><td>79</td></tr><tr><td>2</td><td>-0.03</td><td>-0.14</td><td>0.13</td><td>101</td></tr><tr><td>3</td><td>1.64</td><td>-0.00</td><td>1.63</td><td></td></tr></table></div>  | Nr.      | dx           | dy | l | >° | 1 | -1.63 | -0.00 | 1.63 | 79 | 2 | -0.03 | -0.14 | 0.13 | 101 | 3 | 1.64  | -0.00 | 1.63 |     | 741.20 | 292.774 |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 1    | -1.63 | -0.00 | 1.63    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 2    | -0.03 | -0.14 | 0.13    | 101       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 3    | 1.64  | -0.00 | 1.63    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 13   | 218   | 8     | 2.80    |           | X1  | <div><table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>-1.33</td><td>0.00</td><td>1.33</td><td>79</td></tr><tr><td>2</td><td>-0.03</td><td>-0.14</td><td>0.13</td><td>101</td></tr><tr><td>3</td><td>1.34</td><td>0.00</td><td>1.33</td><td></td></tr></table></div>  | Nr.      | dx           | dy | l | >° | 1 | -1.33 | 0.00  | 1.33 | 79 | 2 | -0.03 | -0.14 | 0.13 | 101 | 3 | 1.34  | 0.00  | 1.33 |     | 610.40 | 241.108 |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 1    | -1.33 | 0.00  | 1.33    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 2    | -0.03 | -0.14 | 0.13    | 101       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |
| 3    | 1.34  | 0.00  | 1.33    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |       |      |     |        |         |       |      |     |   |      |       |      |    |        |         |      |      |  |        |         |



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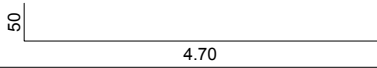
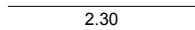
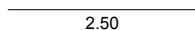
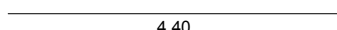
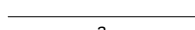
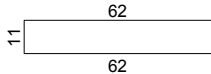
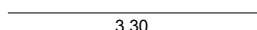
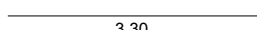
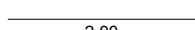
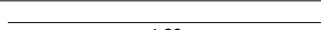


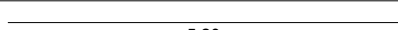
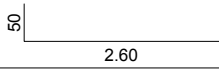
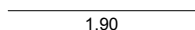
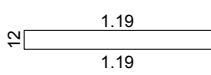
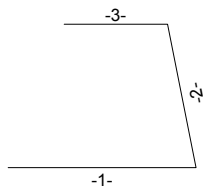
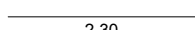
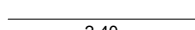
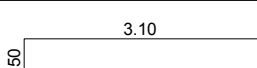
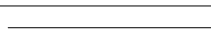


## WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

| Poz. | Szt.  | d     | długość | dbz<br>ds | Typ | forma gięcia   | suma dł. | ciężar<br>kg |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
|------|-------|-------|---------|-----------|-----|--|----------|--------------|----|---|----|---|-------|-------|------|----|---|-------|-------|------|-----|---|-------|------|------|--|-------|--------|
| 32   | 4     | 8     | 3.90    |           | A3  |   | 15.60    | 6.162        |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 33   | 4     | 8     | 2.40    |           | A3  |   | 9.60     | 3.792        |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 34   | 3     | 20    | 9.30    |           | A1  |    | 27.90    | 68.913       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 35   | 4     | 16    | 5.60    | 15        | X1  |  <table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>0.26</td><td>-1.28</td><td>1.31</td><td>79</td></tr><tr><td>2</td><td>2.51</td><td>0.00</td><td>2.48</td><td>101</td></tr><tr><td>3</td><td>-0.36</td><td>1.80</td><td>1.81</td><td></td></tr></table>   | Nr.      | dx           | dy | l | >° | 1 | 0.26  | -1.28 | 1.31 | 79 | 2 | 2.51  | 0.00  | 2.48 | 101 | 3 | -0.36 | 1.80 | 1.81 |  | 22.40 | 35.392 |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 1    | 0.26  | -1.28 | 1.31    | 79        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 2    | 2.51  | 0.00  | 2.48    | 101       |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 3    | -0.36 | 1.80  | 1.81    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 36   | 4     | 14    | 8.30    |           | A2  |    | 33.20    | 40.172       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 37   | 12    | 8     | 7.30    |           | A1  |    | 87.60    | 34.602       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 38   | 18    | 8     | 8.10    |           | A1  |   | 145.80   | 57.591       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 39   | 3     | 20    | 6.75    |           | A1  |    | 20.25    | 50.018       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 40   | 2     | 14    | 7.25    |           | A2  |    | 14.50    | 17.545       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 41   | 16    | 8     | 3.60    |           | A1  |   | 57.60    | 22.752       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 42   | 3     | 20    | 4.90    |           | A1  |   | 14.70    | 36.309       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 43   | 3     | 20    | 3.90    |           | A1  |   | 11.70    | 28.899       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 44   | 12    | 8     | 4.10    |           | A1  |   | 49.20    | 19.434       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 45   | 12    | 14    | 4.80    |           | A2  |   | 57.60    | 69.696       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 46   | 3     | 20    | 6.60    |           | A1  |    | 19.80    | 48.906       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 47   | 50    | 10    | 2.65    |           | A1  |   | 132.50   | 81.752       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 48   | 2     | 14    | 4.70    |           | A1  |   | 9.40     | 11.374       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 49   | 64    | 12    | 4.70    |           | A1  |   | 300.80   | 267.110      |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 50   | 12    | 12    | 4.00    |           | A1  |   | 48.00    | 42.624       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 51   | 2     | 14    | 4.00    |           | A1  |   | 8.00     | 9.680        |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 52   | 9     | 12    | 1.45    |           | A3  |   | 13.05    | 11.588       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 53   | 25    | 10    | 1.85    |           | X1  |  <table><tr><th>Nr.</th><th>dx</th><th>dy</th><th>l</th><th>&gt;°</th></tr><tr><td>1</td><td>-0.85</td><td>0.00</td><td>0.85</td><td>85</td></tr><tr><td>2</td><td>-0.01</td><td>-0.14</td><td>0.14</td><td>95</td></tr><tr><td>3</td><td>0.86</td><td>0.00</td><td>0.86</td><td></td></tr></table> | Nr.      | dx           | dy | l | >° | 1 | -0.85 | 0.00  | 0.85 | 85 | 2 | -0.01 | -0.14 | 0.14 | 95  | 3 | 0.86  | 0.00 | 0.86 |  | 46.25 | 28.536 |
| Nr.  | dx    | dy    | l       | >°        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 1    | -0.85 | 0.00  | 0.85    | 85        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 2    | -0.01 | -0.14 | 0.14    | 95        |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 3    | 0.86  | 0.00  | 0.86    |           |     |  |          |              |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |
| 54   | 3     | 20    | 4.60    |           | A1  |   | 13.80    | 34.086       |    |   |    |   |       |       |      |    |   |       |       |      |     |   |       |      |      |  |       |        |

Projekt: 2007-052 wydział Biologii Uniwersytetu Gdańskiego

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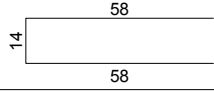
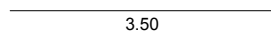

## WYKAZ FORM GIĘCIA PRĘTÓW ZBROJ. Klasa stali: BST 500 SA

| Poz. | Szt. | d  | długość | dbz<br>ds | Typ | forma gięcia   | suma dł. | ciężar<br>kg |
|------|------|----|---------|-----------|-----|--|----------|--------------|
| 55   | 2    | 14 | 5.20    |           | A2  |   | 10.40    | 12.584       |
| 56   | 16   | 10 | 2.30    |           | A1  |   | 36.80    | 22.706       |
| 57   | 16   | 8  | 2.50    |           | A1  |   | 40.00    | 15.800       |
| 58   | 3    | 20 | 4.40    |           | A1  |   | 13.20    | 32.604       |
| 59   | 20   | 10 | 1.99    |           | A1  | <br>-a-<br>Pos. Stk. Länge -a-<br>1 6 2.10 2.10<br>2 6 2.00 2.00<br>3 8 1.90 1.90                               | 39.80    | 24.557       |
| 60   | 10   | 10 | 1.35    |           | A3  |   | 13.50    | 8.329        |
| 61   | 3    | 20 | 3.30    |           | A1  |   | 9.90     | 24.453       |
| 62   | 12   | 8  | 3.30    |           | A1  |   | 39.60    | 15.642       |
| 63   | 12   | 10 | 2.00    |           | A1  |   | 24.00    | 14.808       |
| 64   | 18   | 8  | 4.20    |           | A1  |   | 75.60    | 29.862       |
| 65   | 3    | 20 | 5.20    |           | A1  |    | 15.60    | 38.532       |
| 66   | 4    | 12 | 1.93    |           | A1  | <br>-a-<br>Pos. Stk. Länge -a-<br>1 2 2.30 2.30<br>2 2 1.55 1.55  | 7.72     | 6.855        |
| 67   | 2    | 14 | 5.20    |           | A1  |   | 10.40    | 12.584       |
| 68   | 4    | 14 | 3.10    |           | A2  |   | 12.40    | 15.004       |
| 69   | 16   | 8  | 1.90    |           | A1  |   | 30.40    | 12.008       |
| 70   | 10   | 8  | 2.50    |           | A3  |   | 25.00    | 9.875        |
| 71   | 2    | 16 | 4.60    | 15        | X1  | <br>-1-<br>-2-<br>-3-<br>Nr. dx dy l >°<br>1 2.00 -0.00 1.97 101<br>2 -0.31 1.53 1.53 79<br>3 -1.10 0.00 1.10 | 9.20     | 14.536       |
| 72   | 3    | 20 | 2.30    |           | A1  |   | 6.90     | 17.043       |
| 73   | 12   | 8  | 2.40    |           | A1  |   | 28.80    | 11.376       |
| 74   | 4    | 14 | 3.60    |           | A2  |   | 14.40    | 17.424       |
| 75   | 18   | 8  | 2.70    |           | A1  |   | 48.60    | 19.197       |
| 76   | 3    | 20 | 4.20    |           | A1  |   | 12.60    | 31.122       |
| 77   | 2    | 8  | 1.97    |           | A1  | <br>-a-<br>Pos. Stk. Länge -a-  | 3.94     | 1.556        |

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

| Poz. | Szt. | d     | długość | dbr<br>ds | Typ | forma gięcia   | suma dł. | ciężar<br>kg |       |     |   |   |      |      |   |   |      |      |  |  |
|------|------|-------|---------|-----------|-----|--|----------|--------------|-------|-----|---|---|------|------|---|---|------|------|--|--|
| 77   |      |       |         |           |     | <table><tr><th>Pos.</th><th>Stk.</th><th>Länge</th><th>-a-</th></tr><tr><td>1</td><td>1</td><td>1.60</td><td>1.60</td></tr><tr><td>2</td><td>1</td><td>2.35</td><td>2.35</td></tr></table> | Pos.     | Stk.         | Länge | -a- | 1 | 1 | 1.60 | 1.60 | 2 | 1 | 2.35 | 2.35 |  |  |
| Pos. | Stk. | Länge | -a-     |           |     |  |          |              |       |     |   |   |      |      |   |   |      |      |  |  |
| 1    | 1    | 1.60  | 1.60    |           |     |  |          |              |       |     |   |   |      |      |   |   |      |      |  |  |
| 2    | 1    | 2.35  | 2.35    |           |     |  |          |              |       |     |   |   |      |      |   |   |      |      |  |  |
| 78   | 2    | 8     | 1.30    |           | A3  |   | 2.60     | 1.027        |       |     |   |   |      |      |   |   |      |      |  |  |
| 79   | 2    | 14    | 3.50    |           | A1  |   | 7.00     | 8.470        |       |     |   |   |      |      |   |   |      |      |  |  |
| 80   | 44   | 6     | 0.27    |           | D1  |   | 11.88    | 2.637        |       |     |   |   |      |      |   |   |      |      |  |  |

masa całk. (kg) 5581.246