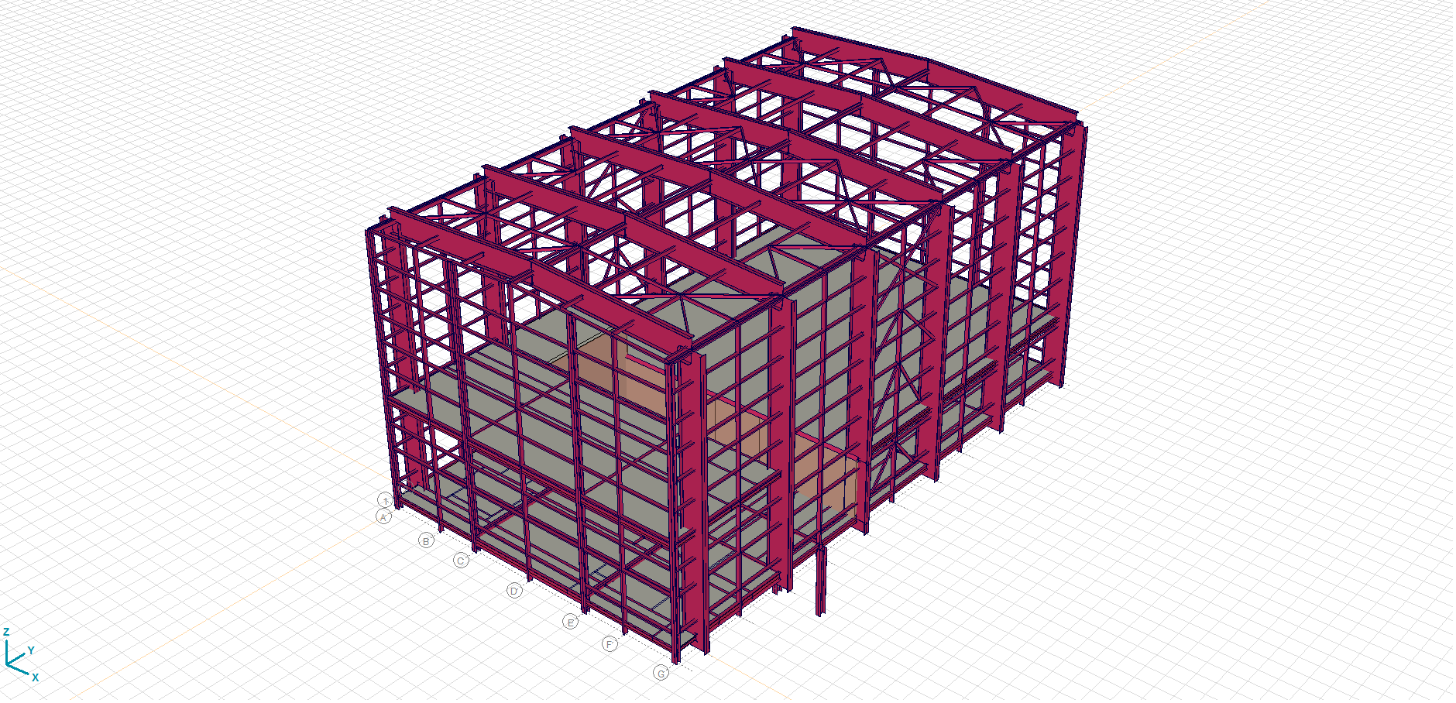
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**1**

***POSOUZENÍ VYBRANÝCH KONSTRUKCÍ***

STÁVAJÍCÍ KONSTRUKCE + VÝMĚNA A NOSNÍKY NOVÉHO STROPU



Dokument Přehled

# Data modelu

### Materiály

|  | **Jméno** | **Typ** | **Národní návrhová norma** | **Norma materiálu** | **Model** |
| --- | --- | --- | --- | --- | --- |
| 1 | S 235 | Ocel | Eurocode-CZ | 10025-2 | Lineární |
| 2 | C16/20 | Beton | Eurocode-CZ | EN 206 | Lineární |
| 3 | PTH 30 N+F Profi DRYFIX | Zdivo | Eurokód | EN 771 | Lineární |
| 4 | S 355 | Ocel | Eurocode-CZ | 10025-2 | Lineární |

|  | **Jméno** | **Ex [N/mm2]** | **Ey [N/mm2]** | **** | **T [1/°C]** | ** [kg/m3]** | **Materiál**  **barva** | **Obrys**  **barva** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | S 235 | 210000 | 210000 | 0,30 | 1,2E-5 | 7850 | ...... | ...... |
| 2 | C16/20 | 28600 | 28600 | 0,20 | 1E-5 | 2500 | ...... | ...... |
| 3 | PTH 30 N+F Profi DRYFIX | 1500 | 1500 | 0,15 | 5E-6 | 750 | ...... | ...... |
| 4 | S 355 | 210000 | 210000 | 0,30 | 1,2E-5 | 7850 | ...... | ...... |

|  | **Jméno** | **Textura** | **P1** | **P2** | **P3** |
| --- | --- | --- | --- | --- | --- |
| 1 | S 235 | Steel | fy[N/mm2] = 235,00 | fu[N/mm2] = 360,00 | fy\*[N/mm2] = 215,00 |
| 2 | C16/20 | Concrete A | fck[N/mm2] = 16,00 | c= 1,500 | cc= 1,00 |
| 3 | PTH 30 N+F Profi DRYFIX | New Brick | fb[N/mm2] = 12,65 | fk[N/mm2] = 2,50 | fvk0[N/mm2] = 0,13 |
| 4 | S 355 | Steel | fy[N/mm2] = 355,00 | fu[N/mm2] = 510,00 | fy\*[N/mm2] = 335,00 |

|  | **Jméno** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** | **P10** | **P11** | **P12** | **P13** | **P14** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | S 235 | fu\*[N/mm2] = 360,00 |  |  |  |  |  |  |  |  |  |  |
| 2 | C16/20 |  t= 2,00 |  |  |  |  |  |  |  |  |  |  |
| 3 | PTH 30 N+F Profi DRYFIX | fxk1[N/mm2] = 0,15 | fxk2[N/mm2] = 0,11 |  |  |  |  |  |  |  |  |  |
| 4 | S 355 | fu\*[N/mm2] = 470,00 |  |  |  |  |  |  |  |  |  |  |

### Průřezy

|  | **Jméno** | **Kresba** | **Proces** | **Tvar** | **h**  **[mm]** | **b**  **[mm]** | **tw**  **[mm]** | **tf**  **[mm]** | **r1**  **[mm]** | **r2**  **[mm]** | **r3**  **[mm]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | I 1300 |  | Válcovaný | I | 1300,0 | 350,0 | 10,0 | 25,0 | 0 | 0 | 0 |
| 2 | I 12840 |  | Svařovaný | I | 12840,0 | 350,0 | 10,0 | 16,0 | 0 | 0 | 0 |
| 3 | I 1284 |  | Svařovaný | I | 1284,0 | 350,0 | 10,0 | 16,0 | 0 | 0 | 0 |
| 4 | IPN 220 |  | Válcovaný | I | 220,0 | 98,0 | 8,1 | 12,2 | 8,1 | 4,9 | 0 |
| 5 | I 250 |  | Svařovaný | I | 250,0 | 300,0 | 8,0 | 12,0 | 0 | 0 | 0 |
| 6 | U 180 |  | Válcovaný | U | 180,0 | 70,0 | 8,0 | 11,0 | 11,0 | 5,5 | 0 |
| 7 | IPN 180 + UPN180 |  | Válcovaný | Uživatelský | 188,0 | 180,0 | 6,9 | 10,4 | 6,9 | 4,1 | 0 |
| 8 | U 200 |  | Válcovaný | U | 200,0 | 75,0 | 8,5 | 11,5 | 11,5 | 6,0 | 0 |
| 9 | IPN 200 |  | Válcovaný | I | 200,0 | 90,0 | 7,5 | 11,3 | 7,5 | 4,5 | 0 |
| 10 | IPN 500 |  | Válcovaný | I | 500,0 | 185,0 | 18,0 | 27,0 | 18,0 | 10,8 | 0 |
| 11 | I 382 |  | Svařovaný | I | 382,0 | 300,0 | 8,0 | 16,0 | 0 | 0 | 0 |
| 12 | IPN 300 |  | Válcovaný | I | 300,0 | 125,0 | 10,8 | 16,2 | 10,8 | 6,5 | 0 |
| 13 | I 800 |  | Svařovaný | I | 800,0 | 250,0 | 12,0 | 20,0 | 0 | 0 | 0 |
| 14 | IPN 280 |  | Válcovaný | I | 280,0 | 119,0 | 10,1 | 15,2 | 10,1 | 6,1 | 0 |
| 15 | IPN 450 |  | Válcovaný | I | 450,0 | 170,0 | 16,2 | 24,3 | 16,2 | 9,7 | 0 |
| 16 | IPN 400 |  | Válcovaný | I | 400,0 | 155,0 | 14,4 | 21,6 | 14,4 | 8,6 | 0 |
| 17 | IPN 380 |  | Válcovaný | I | 380,0 | 149,0 | 13,7 | 20,5 | 13,7 | 8,2 | 0 |
| 18 | IPN 360 |  | Válcovaný | I | 360,0 | 143,0 | 13,0 | 19,5 | 13,0 | 7,8 | 0 |
| 19 | IPN 340 |  | Válcovaný | I | 340,0 | 137,0 | 12,2 | 18,3 | 12,2 | 7,3 | 0 |
| 20 | IPN 260 |  | Válcovaný | I | 260,0 | 113,0 | 9,4 | 14,1 | 9,4 | 5,6 | 0 |
| 21 | IPN 160 |  | Válcovaný | I | 160,0 | 74,0 | 6,3 | 9,5 | 6,3 | 3,8 | 0 |
| 22 | IPN 180 |  | Válcovaný | I | 180,0 | 82,0 | 6,9 | 10,4 | 6,9 | 4,1 | 0 |
| 23 | IPN 220\_1 |  | Válcovaný | I | 220,0 | 98,0 | 8,1 | 12,2 | 8,1 | 4,9 | 0 |
| 24 | HE 160 B |  | Válcovaný | I | 160,0 | 160,0 | 8,0 | 13,0 | 15,0 | 0 | 0 |
| 25 | výměna |  | Válcovaný | Uživatelský | 290,0 | 400,0 | 9,5 | 16,0 | 18,0 | 0 | 0 |
| 26 | HE 220 B |  | Válcovaný | I | 220,0 | 220,0 | 9,5 | 16,0 | 18,0 | 0 | 0 |
| 27 | I 160 svařovaný |  | Svařovaný | I | 160,0 | 130,0 | 15,0 | 10,0 | 0 | 0 | 0 |

|  | **Jméno** | **Ax**  **[mm2]** | **Ay**  **[mm2]** | **Az**  **[mm2]** | **Ix**  **[mm4]** | **Iy**  **[mm4]** | **Iz**  **[mm4]** | **Iyz**  **[mm4]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | I 1300 | 29999,98 | 14662,67 | 12619,62 | 3935099,0 | 8,7E+09 | 1,8E+08 | 0 |
| 2 | I 12840 | 139280,20 | 9568,94 | 113849,30 | 5214629,0 | 2,2E+12 | 1,2E+08 | 0 |
| 3 | I 1284 | 23720,02 | 9408,46 | 12362,35 | 1361383,0 | 6,1E+09 | 1,1E+08 | 0 |
| 4 | IPN 220 | 3950,32 | 2202,51 | 1725,67 | 178248,2 | 3,1E+07 | 1620129,0 | 0 |
| 5 | I 250 | 9008,00 | 6037,81 | 1749,26 | 381040,2 | 1,1E+08 | 5,4E+07 | 0 |
| 6 | U 180 | 2796,60 | 854,02 | 1315,43 | 95985,6 | 1,4E+07 | 1134974,0 | 0 |
| 7 | IPN 180 + UPN180 | 5583,39 | 1714,38 | 1040,05 | 266067,6 | 2,4E+07 | 1,4E+07 | 0 |
| 8 | U 200 | 3218,52 | 931,26 | 1555,63 | 121078,6 | 1,9E+07 | 1477534,0 | 0 |
| 9 | IPN 200 | 3343,46 | 1873,42 | 1452,54 | 129662,0 | 2,1E+07 | 1164188,0 | 0 |
| 10 | IPN 500 | 17935,86 | 9253,61 | 8682,90 | 3781348,0 | 6,9E+08 | 2,5E+07 | 0 |
| 11 | I 382 | 12400,00 | 8040,89 | 2837,93 | 860906,7 | 3,5E+08 | 7,2E+07 | 0 |
| 12 | IPN 300 | 6899,77 | 3736,14 | 3134,08 | 540553,8 | 9,8E+07 | 4494726,0 | 0 |
| 13 | I 800 | 19120,01 | 8448,94 | 9181,30 | 1737319,0 | 2E+09 | 5,2E+07 | 0 |
| 14 | IPN 280 | 6101,65 | 3334,77 | 2736,78 | 422383,7 | 7,6E+07 | 3629826,0 | 0 |
| 15 | IPN 450 | 14694,42 | 7646,13 | 7036,59 | 2523054,0 | 4,6E+08 | 1,7E+07 | 0 |
| 16 | IPN 400 | 11774,72 | 6190,83 | 5563,01 | 1608163,0 | 2,9E+08 | 1,2E+07 | 0 |
| 17 | IPN 380 | 10698,06 | 5647,07 | 5028,88 | 1321936,0 | 2,4E+08 | 9724785,0 | 0 |
| 18 | IPN 360 | 9698,61 | 5151,85 | 4522,24 | 1086638,0 | 2E+08 | 8165471,0 | 0 |
| 19 | IPN 340 | 8668,21 | 4629,67 | 4009,73 | 858785,2 | 1,6E+08 | 6718120,0 | 0 |
| 20 | IPN 260 | 5332,61 | 2937,73 | 2365,91 | 320156,3 | 5,7E+07 | 2873592,0 | 0 |
| 21 | IPN 160 | 2280,06 | 1294,47 | 976,07 | 62808,5 | 9339790,0 | 545714,1 | 0 |
| 22 | IPN 180 | 2786,86 | 1570,85 | 1202,65 | 91746,2 | 1,4E+07 | 811929,4 | 0 |
| 23 | IPN 220\_1 | 3950,32 | 2202,51 | 1725,67 | 178248,2 | 3,1E+07 | 1620129,0 | 0 |
| 24 | HE 160 B | 5426,04 | 3754,44 | 1237,48 | 317826,3 | 2,5E+07 | 8892444,0 | 0 |
| 25 | výměna | 11900,92 | 0 | 0 | 724818,4 | 1,2E+08 | 1,3E+08 | 5,5E+07 |
| 26 | HE 220 B | 9105,42 | 6276,26 | 2008,65 | 781768,1 | 8,1E+07 | 2,8E+07 | 0 |
| 27 | I 160 svařovaný | 4700,00 | 2325,09 | 2052,85 | 254182,7 | 1,8E+07 | 3701040,0 | 0 |

|  | **Jméno** | **I1**  **[mm4]** | **I2**  **[mm4]** | ****  **[°]** | **I**  **[mm6]** | **W1,el,t**  **[mm3]** | **W1,el,b**  **[mm3]** | **W2,el,t**  **[mm3]** | **W2,el,b**  **[mm3]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | I 1300 | 8,7E+09 | 1,8E+08 | 0 | 7,3E+13 | 1,3E+07 | 1,3E+07 | 1021428,0 | 1021428,0 |
| 2 | I 12840 | 2,2E+12 | 1,2E+08 | 0 | 4,7E+15 | 3,4E+08 | 3,4E+08 | 659443,4 | 659443,4 |
| 3 | I 1284 | 6,1E+09 | 1,1E+08 | 0 | 4,6E+13 | 9560100,0 | 9560100,0 | 653930,8 | 653930,8 |
| 4 | IPN 220 | 3,1E+07 | 1620129,0 | 0 | 1,7E+10 | 277712,9 | 277712,9 | 33063,9 | 33063,9 |
| 5 | I 250 | 1,1E+08 | 5,4E+07 | 0 | 7,6E+11 | 877928,6 | 877928,6 | 360064,4 | 360064,4 |
| 6 | U 180 | 1,4E+07 | 1134974,0 | 0 | 5,5E+09 | 150435,9 | 150435,9 | 22379,1 | 58855,1 |
| 7 | IPN 180 + UPN180 | 2,4E+07 | 1,4E+07 | 0 | 2,5E+10 | 413577,0 | 187166,4 | 159458,0 | 159458,0 |
| 8 | U 200 | 1,9E+07 | 1477534,0 | 0 | 8,9E+09 | 191091,8 | 191091,8 | 26935,4 | 73344,2 |
| 9 | IPN 200 | 2,1E+07 | 1164188,0 | 0 | 9,9E+09 | 213780,3 | 213780,3 | 25870,9 | 25870,9 |
| 10 | IPN 500 | 6,9E+08 | 2,5E+07 | 0 | 1,3E+12 | 2745974,0 | 2745974,0 | 267342,4 | 267342,4 |
| 11 | I 382 | 3,5E+08 | 7,2E+07 | 0 | 2,4E+12 | 1833940,0 | 1833940,0 | 480099,7 | 480099,7 |
| 12 | IPN 300 | 9,8E+07 | 4494726,0 | 0 | 8,6E+10 | 652361,8 | 652361,8 | 71915,6 | 71915,6 |
| 13 | I 800 | 2E+09 | 5,2E+07 | 0 | 7,9E+12 | 4900775,0 | 4900775,0 | 417542,4 | 417542,4 |
| 14 | IPN 280 | 7,6E+07 | 3629826,0 | 0 | 6,1E+10 | 541099,9 | 541099,9 | 61005,5 | 61005,5 |
| 15 | IPN 450 | 4,6E+08 | 1,7E+07 | 0 | 7,4E+11 | 2035212,0 | 2035212,0 | 202574,7 | 202574,7 |
| 16 | IPN 400 | 2,9E+08 | 1,2E+07 | 0 | 3,9E+11 | 1458707,0 | 1458707,0 | 149145,4 | 149145,4 |
| 17 | IPN 380 | 2,4E+08 | 9724786,0 | 0 | 3E+11 | 1262036,0 | 1262036,0 | 130534,0 | 130534,0 |
| 18 | IPN 360 | 2E+08 | 8165472,0 | 0 | 2,3E+11 | 1087531,0 | 1087531,0 | 114202,4 | 114202,4 |
| 19 | IPN 340 | 1,6E+08 | 6718120,0 | 0 | 1,7E+11 | 921766,6 | 921766,6 | 98074,7 | 98074,7 |
| 20 | IPN 260 | 5,7E+07 | 2873592,0 | 0 | 4,1E+10 | 441134,3 | 441134,3 | 50860,0 | 50860,0 |
| 21 | IPN 160 | 9339790,0 | 545714,0 | 0 | 2,9E+09 | 116747,4 | 116747,4 | 14749,0 | 14749,0 |
| 22 | IPN 180 | 1,4E+07 | 811929,5 | 0 | 5,5E+09 | 160454,8 | 160454,8 | 19803,2 | 19803,2 |
| 23 | IPN 220\_1 | 3,1E+07 | 1620129,0 | 0 | 1,7E+10 | 277712,9 | 277712,9 | 33063,9 | 33063,9 |
| 24 | HE 160 B | 2,5E+07 | 8892443,0 | 0 | 4,7E+10 | 311542,7 | 311542,7 | 111155,5 | 111155,5 |
| 25 | výměna | 1,8E+08 | 6,7E+07 | -47,52 | 4,3E+11 | 846235,7 | 635881,4 | 407552,0 | 459650,6 |
| 26 | HE 220 B | 8,1E+07 | 2,8E+07 | 0 | 2,9E+11 | 735632,5 | 735632,5 | 258480,6 | 258480,6 |
| 27 | I 160 svařovaný | 1,8E+07 | 3701040,0 | 0 | 2E+10 | 225958,3 | 225958,3 | 56939,1 | 56939,1 |

|  | **Jméno** | **W1,pl**  **[mm3]** | **W2,pl**  **[mm3]** | **iy**  **[mm]** | **iz**  **[mm]** | **Hy**  **[mm]** | **Hz**  **[mm]** | **yG**  **[mm]** | **zG**  **[mm]** | **ys**  **[mm]** | **zs**  **[mm]** | **S.p.** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | I 1300 | 1,5E+07 | 1562500,0 | 539,8 | 77,2 | 350,0 | 1300,0 | 175,0 | 650,0 | 0 | 0 | 9 |
| 2 | I 12840 | 4,8E+08 | 1300200,0 | 3984,6 | 28,8 | 350,0 | 12840,0 | 175,0 | 6420,0 | 0 | 0 | 9 |
| 3 | I 1284 | 1,1E+07 | 1011300,0 | 508,7 | 69,5 | 350,0 | 1284,0 | 175,0 | 642,0 | 0 | 0 | 9 |
| 4 | IPN 220 | 322915,4 | 55714,9 | 87,9 | 20,3 | 98,0 | 220,0 | 49,0 | 110,0 | 0 | 0 | 9 |
| 5 | I 250 | 958952,0 | 543616,0 | 110,4 | 77,4 | 300,0 | 250,0 | 150,0 | 125,0 | 0 | 0 | 9 |
| 6 | U 180 | 179116,9 | 43099,0 | 69,6 | 20,1 | 70,0 | 180,0 | 19,3 | 90,0 | -36,8 | 0 | 8 |
| 7 | IPN 180 + UPN180 | 276432,9 | 212422,4 | 65,9 | 50,7 | 180,0 | 188,0 | 90,0 | 129,4 | 0 | 67,6 | 9 |
| 8 | U 200 | 227755,3 | 51850,6 | 77,1 | 21,4 | 75,0 | 200,0 | 20,1 | 100,0 | -38,7 | 0 | 8 |
| 9 | IPN 200 | 248631,1 | 43555,3 | 80,0 | 18,7 | 90,0 | 200,0 | 45,0 | 100,0 | 0 | 0 | 9 |
| 10 | IPN 500 | 3235237,0 | 456276,0 | 195,6 | 37,1 | 185,0 | 500,0 | 92,5 | 250,0 | 0 | 0 | 9 |
| 11 | I 382 | 2001800,0 | 725600,0 | 168,1 | 76,2 | 300,0 | 382,0 | 150,0 | 191,0 | 0 | 0 | 9 |
| 12 | IPN 300 | 761490,9 | 121682,5 | 119,1 | 25,5 | 125,0 | 300,0 | 62,5 | 150,0 | 0 | 0 | 9 |
| 13 | I 800 | 5632800,0 | 652360,0 | 320,2 | 52,2 | 250,0 | 800,0 | 125,0 | 400,0 | 0 | 0 | 9 |
| 14 | IPN 280 | 630689,3 | 103066,8 | 111,4 | 24,4 | 119,0 | 280,0 | 59,5 | 140,0 | 0 | 0 | 9 |
| 15 | IPN 450 | 2393820,0 | 345102,3 | 176,5 | 34,2 | 170,0 | 450,0 | 85,0 | 225,0 | 0 | 0 | 9 |
| 16 | IPN 400 | 1712270,0 | 253552,9 | 157,4 | 31,3 | 155,0 | 400,0 | 77,5 | 200,0 | 0 | 0 | 9 |
| 17 | IPN 380 | 1480263,0 | 221803,3 | 149,7 | 30,2 | 149,0 | 380,0 | 74,5 | 190,0 | 0 | 0 | 9 |
| 18 | IPN 360 | 1274307,0 | 193811,8 | 142,1 | 29,0 | 143,0 | 360,0 | 71,5 | 180,0 | 0 | 0 | 9 |
| 19 | IPN 340 | 1078528,0 | 166273,5 | 134,5 | 27,8 | 137,0 | 340,0 | 68,5 | 170,0 | 0 | 0 | 9 |
| 20 | IPN 260 | 513422,3 | 85848,3 | 103,7 | 23,2 | 113,0 | 260,0 | 56,5 | 130,0 | 0 | 0 | 9 |
| 21 | IPN 160 | 135873,5 | 24783,2 | 64,0 | 15,5 | 74,0 | 160,0 | 37,0 | 80,0 | 0 | 0 | 9 |
| 22 | IPN 180 | 186665,7 | 33304,5 | 72,0 | 17,1 | 82,0 | 180,0 | 41,0 | 90,0 | 0 | 0 | 9 |
| 23 | IPN 220\_1 | 322915,4 | 55714,9 | 87,9 | 20,3 | 98,0 | 220,0 | 49,0 | 110,0 | 0 | 0 | 9 |
| 24 | HE 160 B | 354020,6 | 169972,2 | 67,8 | 40,5 | 160,0 | 160,0 | 80,0 | 80,0 | 0 | 0 | 9 |
| 25 | výměna | 1182629,0 | 753955,4 | 99,5 | 103,5 | 400,0 | 290,0 | 243,0 | 149,6 | 43,8 | 1,6 | 9 |
| 26 | HE 220 B | 827160,4 | 393895,7 | 94,3 | 55,9 | 220,0 | 220,0 | 110,0 | 110,0 | 0 | 0 | 9 |
| 27 | I 160 svařovaný | 268500,0 | 92375,0 | 62,0 | 28,1 | 130,0 | 160,0 | 65,0 | 80,0 | 0 | 0 | 9 |

### Zatěžovací stavy

|  | **Jméno** | **Skupina** | **Typ skupiny** |
| --- | --- | --- | --- |
| 1 | vlastní tíha | PERM1 | Stálé |
| 2 | opláštění | PERM1 | Stálé |
| 3 | podlahy | PERM1 | Stálé |
| 4 | proměnné užitné | INC1 | Nahodilé |
| 5 | Sníh UD | SNÍH | Sníh |
| 6 | Vítr X+.Sp.O | VÍTR | Vítr |
| 7 | Vítr X+.Sp.P | VÍTR | Vítr |
| 8 | Vítr X+.Sp.S | VÍTR | Vítr |
| 9 | Vítr X+.Ss.O | VÍTR | Vítr |
| 10 | Vítr X+.Ss.P | VÍTR | Vítr |
| 11 | Vítr X+.Ss.S | VÍTR | Vítr |
| 12 | Vítr X+.T+.O | VÍTR | Vítr |
| 13 | Vítr X+.T-.O | VÍTR | Vítr |
| 14 | Vítr X-.Sp.O | VÍTR | Vítr |
| 15 | Vítr X-.Sp.P | VÍTR | Vítr |
| 16 | Vítr X-.Sp.S | VÍTR | Vítr |
| 17 | Vítr X-.Ss.O | VÍTR | Vítr |
| 18 | Vítr X-.Ss.P | VÍTR | Vítr |
| 19 | Vítr X-.Ss.S | VÍTR | Vítr |
| 20 | Vítr X-.T+.O | VÍTR | Vítr |
| 21 | Vítr X-.T-.O | VÍTR | Vítr |
| 22 | Vítr Y+.S.O | VÍTR | Vítr |
| 23 | Vítr Y+.S.P | VÍTR | Vítr |
| 24 | Vítr Y+.S.S | VÍTR | Vítr |
| 25 | Vítr Y+.T+.O | VÍTR | Vítr |
| 26 | Vítr Y+.T-.O | VÍTR | Vítr |
| 27 | Vítr Y-.S.O | VÍTR | Vítr |
| 28 | Vítr Y-.S.P | VÍTR | Vítr |
| 29 | Vítr Y-.S.S | VÍTR | Vítr |
| 30 | Vítr Y-.T+.O | VÍTR | Vítr |
| 31 | Vítr Y-.T-.O | VÍTR | Vítr |

### Skupiny zatížení (Eurocode-CZ)

|  | **Skupina** | **Typ** | **G,sup** | **G,inf** | **** | **** | **0** | **1** | **2** | **Současné zat.** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | PERM1 | Stálé | 1,350 | 1,000 | 0,850 |  |  |  |  | 1 |
| 2 | INC1 | Nahodilé |  |  |  | 1,500 | 0,700 | 0,500 | 0,300 | 0 |
| 3 | SNÍH | Sníh |  |  |  | 1,500 | 0,500 | 0,200 | 0 |  |
| 4 | VÍTR | Vítr |  |  |  | 1,500 | 0,600 | 0,200 | 0 |  |

### opláštění: Plošné zatížení na nosnících a žebrech

|  | **Směr** | **Typ** | **Komp.** | **Hodnota**  **[kN/m2]** | **Xref**  **[m]** | **Yref**  **[m]** | **Zref**  **[m]** | **X**  **[m]** | **Y**  **[m]** | **Z**  **[m]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | 30,390 | 15,680 |
|  |  |  | pY = | 0 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  | pZ = | -3,17 |  |  |  | 9,350 | -1,350 | 16,152 |
|  |  |  |  |  |  |  |  | 18,700 | -1,350 | 15,680 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 9,350 | -1,350 | 16,152 |
|  |  |  | pY = | 0 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  | pZ = | -3,17 |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | -1,350 | 15,680 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | 30,390 | 0 |
|  |  |  | pY = | 0 |  |  |  | 18,700 | 30,390 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  |  |  |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | 30,390 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 0 | 30,390 | 0 |
|  |  |  | pY = | 0 |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 0 | -1,350 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | -1,350 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 0 | -1,350 | 0 |
|  |  |  | pY = | 0 |  |  |  | 0 | -1,350 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 18,700 | -1,350 | 15,680 |
|  |  |  |  |  |  |  |  | 18,700 | -1,350 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | -1,350 | 15,680 |
|  |  |  | pY = | 0 |  |  |  | 18,700 | -1,350 | 0 |
|  |  |  | pZ = | -0,26 |  |  |  | 18,700 | 30,390 | 0 |
|  |  |  |  |  |  |  |  | 18,700 | 30,390 | 15,680 |

# Logické části

## Sloupy

### vlastní tíha: Vlastní tíha nosníku [Části]

|  | ** [kg]** |
| --- | --- |
| 47–77 | 5420,729 |
| 465–827 | 53508,741 |
| 829–862 | 2678,147 |
| 865 | 63,726 |
| 944–945 | 47,135 |
| 990–991 | 47,135 |
| 1004–1026 | 1180,735 |
| **Celkem** | **62946,347** |

### vlastní tíha: Vlastní tíha žebra [Části]

|  | ** [kg]** |
| --- | --- |
| 1–4 | 1438,904 |
| 104–106 | 227,257 |
| 119–123 | 476,887 |
| **Celkem** | **2143,049** |

### Lineární statická analýza

#### Posuny

Deformace na nosnících

Kritické Min, Max.

### Deformace na nosnících [Lineární,(MSP Kvazi-stálá) Kritická, Části]

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **ex**  **[mm]** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 397 | 5 | I 250 | ex | min | 0 | (362) | **-41,330** |
| 399 | 5 | I 250 |  | min | 0 | (364) | **-41,346** |
| 403 | 11 | I 382 |  | max | 0 | (507) | **0,597** |
| 399 | 5 | I 250 | ez | min | 0 | (364) | -41,339 |
| 48 | 5 | I 250 |  | max | 9,602 |  | -0,115 |
| 397 | 5 | I 250 | fy | min | 11,791 | (75) | -41,260 |
| 399 | 5 | I 250 |  | min | 11,791 | (73) | -41,277 |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | -0,795 |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **ez**  **[mm]** | **fy**  **[rad]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — | — |
| 397 | 5 | I 250 | ex | min | 0 | (362) | -234,536 | -0,02043 |
| 399 | 5 | I 250 |  | min | 0 | (364) | -235,365 | -0,02045 |
| 403 | 11 | I 382 |  | max | 0 | (507) | -0,071 | 0,00062 |
| 399 | 5 | I 250 | ez | min | 0 | (364) | **-235,528** | -0,02039 |
| 48 | 5 | I 250 |  | max | 9,602 |  | **7,697** | 0 |
| 397 | 5 | I 250 | fy | min | 11,791 | (75) | 7,169 | **-0,02063** |
| 399 | 5 | I 250 |  | min | 11,791 | (73) | 6,536 | **-0,02065** |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | 3,025 | **0,00237** |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Kritická kombinace** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 397 | 5 | I 250 | ex | min | 0 | (362) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 399 | 5 | I 250 |  | min | 0 | (364) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 403 | 11 | I 382 |  | max | 0 | (507) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 399 | 5 | I 250 | ez | min | 0 | (364) | [vlastní tíha+opláštění+podlahy] |
| 48 | 5 | I 250 |  | max | 9,602 |  | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 397 | 5 | I 250 | fy | min | 11,791 | (75) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 399 | 5 | I 250 |  | min | 11,791 | (73) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |

#### Vnitřní síly

Vnitřní síly na nosníku

Kritické Min, Max.

### Vnitřní síly na nosníku [Lineární,(Vše MSÚ (a, b)) Kritická, Části]

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Nx**  **[kN]** | **Vz**  **[kN]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — | — |
| 402 | 1 | I 1300 | Nx | min | 0 | (11) | **-1232,992** | -74,404 |
| 396 | 4 | IPN 220 |  | max | 11,665 | (71) | **94,726** | -10,496 |
| 400 | 4 | IPN 220 |  | max | 11,665 | (69) | **94,777** | -10,507 |
| 76 | 5 | I 250 | Vz | min | 0,599 | (516) | -323,109 | **-278,245** |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | -577,487 | **377,373** |
| 65 | 1 | I 1300 | My | min | 9,481 | (12) | -340,983 | -142,580 |
| 50 | 1 | I 1300 |  | max | 15,680 | (9) | -351,094 | 118,114 |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **My**  **[kNm]** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 402 | 1 | I 1300 | Nx | min | 0 | (11) | -413,187 |
| 396 | 4 | IPN 220 |  | max | 11,665 | (71) | -0,620 |
| 400 | 4 | IPN 220 |  | max | 11,665 | (69) | -0,631 |
| 76 | 5 | I 250 | Vz | min | 0,599 | (516) | -166,630 |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | 269,146 |
| 65 | 1 | I 1300 | My | min | 9,481 | (12) | **-919,160** |
| 50 | 1 | I 1300 |  | max | 15,680 | (9) | **902,349** |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Kritická kombinace** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 402 | 1 | I 1300 | Nx | min | 0 | (11) | [1,35\*vlastní tíha+1,35\*opláštění+1,35\*podlahy] 1,5\*0,7\*proměnné užitné (1,5\*0,5\*Sníh UD+1,5\*0,6\*Vítr Y-.S.S) |
| 396 | 4 | IPN 220 |  | max | 11,665 | (71) | [vlastní tíha+opláštění+podlahy] 1,5\*Vítr X-.Ss.P |
| 400 | 4 | IPN 220 |  | max | 11,665 | (69) | [vlastní tíha+opláštění+podlahy] 1,5\*Vítr X+.Ss.P |
| 76 | 5 | I 250 | Vz | min | 0,599 | (516) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*proměnné užitné (1,5\*0,6\*Vítr Y+.S.S) |
| 71 | 5 | I 250 |  | max | 4,099 | (1011) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*proměnné užitné (1,5\*0,6\*Vítr Y-.S.S) |
| 65 | 1 | I 1300 | My | min | 9,481 | (12) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Sníh UD (1,5\*0,7\*proměnné užitné+1,5\*0,6\*Vítr X-.Sp.S) |
| 50 | 1 | I 1300 |  | max | 15,680 | (9) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Sníh UD (1,5\*0,7\*proměnné užitné+1,5\*0,6\*Vítr X+.Sp.S) |

Vnitřní síly v uzlové podpoře

Kritické Min, Max.

### Vnitřní síly v uzlové podpoře [Lineární,(Vše MSÚ (a, b)) Kritická, Části]

|  | **Uzel** | **Typ** | **C** | **min.**  **max.** | **Rx**  **[kN]** |
| --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — |
| 16 | 38 | Glob. | Rx | min | **-178,760** |
| 14 | 33 | Glob. |  | max | **168,386** |
| 5 | 11 | Glob. | Rz | min | -74,404 |
| 43 | 524 | Glob. |  | max | 1,089 |
| 11 | 26 | Glob. | Ryy | min | -25,196 |
| 5 | 11 | Glob. |  | max | 32,463 |

|  | **Uzel** | **Typ** | **C** | **Rz**  **[kN]** | **Ryy**  **[kNm]** |
| --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — |
| 16 | 38 | Glob. | Rx | -118,494 | -30,541 |
| 14 | 33 | Glob. |  | -118,019 | 29,491 |
| 5 | 11 | Glob. | Rz | **-1232,992** | 413,187 |
| 43 | 524 | Glob. |  | **25,585** |  |
| 11 | 26 | Glob. | Ryy | -343,819 | **-483,952** |
| 5 | 11 | Glob. |  | -989,970 | **604,661** |

|  | **Uzel** | **Typ** | **C** | **Kritická kombinace** |
| --- | --- | --- | --- | --- |
| — | — | — | — | — |
| 16 | 38 | Glob. | Rx | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr X+.Ss.S (1,5\*0,7\*proměnné užitné) |
| 14 | 33 | Glob. |  | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr X-.Sp.S (1,5\*0,7\*proměnné užitné+1,5\*0,5\*Sníh UD) |
| 5 | 11 | Glob. | Rz | [1,35\*vlastní tíha+1,35\*opláštění+1,35\*podlahy] 1,5\*0,7\*proměnné užitné (1,5\*0,5\*Sníh UD+1,5\*0,6\*Vítr Y-.S.S) |
| 43 | 524 | Glob. |  | [vlastní tíha+opláštění+podlahy] 1,5\*Vítr X-.Ss.S |
| 11 | 26 | Glob. | Ryy | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr X-.Sp.P (1,5\*0,5\*Sníh UD) |
| 5 | 11 | Glob. |  | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr X+.Ss.S (1,5\*0,7\*proměnné užitné+1,5\*0,5\*Sníh UD) |

#### Posudek oceli

Jednotkový posudek konstrukčního prvku (Eurocode-CZ)

Kritické Min, Max.

### Jednotkový posudek konstrukčního prvku (Eurocode-CZ) [Lineární,(Vše MSÚ (a, b)) Kritická, Části]

|  | **Konstr.**  **prv.** | **Typ** | **Materiál** | **Průřez** | **Max. Poz.**  **[m]** | **Výpočet** | **Max.** | **Nx**  **[kN]** | **Vz**  **[kN]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 (133–1509) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,473 | -0,021 | 8,469 |
| 2 | 3 (97–1509) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,382 | -5,164 | -10,477 |
| 3 | 4 (120–1499) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,473 | -16,272 | 7,651 |
| 4 | 5 (506–1035) | (Žebro) | S 235 | I 1300 | 3,500 | N-M-Klop. | **1,213** | -835,935 | 48,329 |
| 5 | 8 (1035–12) | (Nosník) | S 235 | I 1300 | 9,481 | N-M-V | 0,339 | -340,983 | -142,580 |
| 6 | 11 (84–1499) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,398 | -6,969 | 11,987 |
| 7 | 19 (389–1011) | (Nosník) | S 235 | I 250 | 0,445 | N-M-V | **4,345** | -577,487 | 377,373 |
| 8 | 20 (1011–318) | (Nosník) | S 235 | I 250 | 0 | N-M-V | **4,405** | -20,098 | 303,245 |
| 9 | 21 (1450–1452) | (Nosník) | S 355 | IPN 220 | 2,055 | N-M-V | 0,070 | 45,739 | 4,982 |
| 10 | 22 (376–1012) | (Nosník) | S 235 | I 250 | 0,445 | N-M-V | **4,136** | -548,694 | 372,593 |
| 11 | 23 (1012–305) | (Nosník) | S 235 | I 250 | 0 | N-M-V | **4,211** | -20,109 | 264,842 |
| 12 | 24 (1449–1451) | (Nosník) | S 355 | IPN 220 | 2,055 | N-M-Klop. | 0,203 | -59,797 | 5,185 |
| 13 | 25 (6–7) | (Nosník) | S 235 | I 1300 | 0 | N-M-Klop. | 0,487 | -490,741 | 53,030 |
| 14 | 27 (1–2) | (Nosník) | S 235 | I 1300 | 0 | N-M-Klop. | 0,393 | -372,965 | -42,495 |
| 15 | 28 (8–9) | (Nosník) | S 235 | I 1300 | 0 | N-M-Klop. | 0,527 | -563,198 | 57,756 |
| 16 | 29 (323–883) | (Nosník) | S 235 | I 250 | 1,275 | N-M-V | 0,303 | -53,657 | -13,255 |
| 17 | 30 (287–883) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,106 | -30,272 | -17,156 |
| 18 | 32 (321–885) | (Nosník) | S 235 | I 250 | 1,275 | N-M-V | 0,293 | -53,391 | -13,315 |
| 19 | 33 (285–885) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,098 | -31,090 | -13,842 |
| 20 | 34 (3–4) | (Nosník) | S 235 | I 1300 | 0,599 | N-M-Klop. | 0,438 | -284,733 | 70,299 |
| 21 | 35 (505–1000) | (Žebro) | S 235 | I 1300 | 3,500 | N-M-V | 0,910 | -687,813 | 46,635 |
| 22 | 36 (1000–14) | (Nosník) | S 235 | I 1300 | 0 | N-M-V | **1,412** | -422,629 | 95,835 |
| 23 | 38 (308–988) | (Nosník) | S 235 | I 250 | 1,275 | N-M-V | 0,131 | -26,465 | 5,720 |
| 24 | 39 (272–988) | (Nosník) | S 235 | I 250 | 0 | N-M-Klop. | 0,096 | -26,508 | -7,330 |
| 25 | 41 (295–977) | (Nosník) | S 235 | I 250 | 1,275 | N-M-V | 0,155 | -26,939 | 3,275 |
| 26 | 42 (259–977) | (Nosník) | S 235 | I 250 | 0 | N-M-Klop. | 0,123 | -26,538 | -8,768 |
| 27 | 47 (509–877) | (Nosník) | S 235 | I 160 svařovaný | 0 | N-M-Klop. | 0,464 | -23,614 | 7,012 |
| 28 | 48 (507–875) | (Nosník) | S 235 | I 160 svařovaný | 0 | N-M-Klop. | 0,444 | -24,148 | 6,630 |
| 29 | 270 (434–577) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,274 | -8,009 | 9,703 |
| 30 | 271 (74–577) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | 0,235 | -90,674 | 35,621 |
| 31 | 272 (432–575) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,178 | -8,009 | 9,703 |
| 32 | 273 (76–575) | (Nosník) | S 235 | I 250 | 0,599 | Vz | 0,138 | -68,393 | 33,811 |
| 33 | 274 (424–573) | (Nosník) | S 235 | I 250 | 1,000 | N-M-V | 0,857 | -587,880 | 13,048 |
| 34 | 275 (64–573) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | 0,631 | -627,912 | -61,174 |
| 35 | 280 (412–565) | (Nosník) | S 235 | I 250 | 1,000 | N-M-V | 0,803 | -558,968 | 17,769 |
| 36 | 281 (66–565) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | 0,550 | -640,300 | -70,548 |
| 37 | 282 (415–564) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,156 | -36,656 | -0,572 |
| 38 | 283 (50–564) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | 0,147 | -25,190 | -18,330 |
| 39 | 287 (402–561) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,211 | -37,130 | 1,498 |
| 40 | 288 (52–561) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | 0,184 | -22,290 | -31,088 |
| 41 | 330 (525–526) | (Nosník) | S 235 | I 382 | 0 | N-M-Vzp | 0,110 | -151,208 | 7,699 |
| 42 | 331 (523–524) | (Nosník) | S 235 | I 382 | 0 | N-M-V | 0,029 | -42,781 | 0,032 |
| 43 | 332 (521–522) | (Nosník) | S 235 | I 382 | 0 | N-M-Vzp | 0,098 | -216,811 | 1,766 |
| 44 | 333 (519–520) | (Nosník) | S 235 | I 382 | 4,000 | N-M-Vzp | 0,073 | -171,266 | 0,143 |
| 45 | 334 (517–518) | (Nosník) | S 235 | I 382 | 0 | N-M-Vzp | 0,069 | -152,004 | -0,632 |
| 46 | 335 (427–516) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,468 | -65,203 | -29,980 |
| 47 | 336 (55–516) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | **1,336** | -325,222 | -278,232 |
| 48 | 337 (429–515) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,482 | -65,625 | -29,933 |
| 49 | 338 (54–515) | (Nosník) | S 235 | I 250 | 0,599 | N-M-V | **1,233** | -314,071 | -255,751 |
| 50 | 339 (513–514) | (Nosník) | S 235 | I 382 | 0 | N-M-Vzp | 0,069 | -147,236 | 1,977 |
| 51 | 340 (511–512) | (Nosník) | S 235 | I 382 | 0 | N-M-Vzp | 0,279 | -535,604 | -0,063 |
| 52 | 341 (509–510) | (Nosník) | S 235 | I 382 | 0 | N-M-V | 0,465 | -623,180 | 20,514 |
| 53 | 342 (507–508) | (Nosník) | S 235 | I 382 | 0 | N-M-V | 0,424 | -625,315 | 14,130 |
| 54 | 343 (11–506) | (Nosník) | S 235 | I 1300 | 0 | N-M-V | 0,477 | -1134,053 | -20,578 |
| 55 | 344 (13–505) | (Nosník) | S 235 | I 1300 | 0,599 | N-M-V | 0,326 | -874,185 | 88,036 |
| 56 | 345 (399–434) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,057 | -3,502 | 5,504 |
| 57 | 346 (397–432) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,086 | -4,018 | 5,504 |
| 58 | 347 (394–429) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,326 | -59,529 | -25,744 |
| 59 | 348 (394–323) | (Nosník) | S 235 | I 250 | 1,440 | N-M-V | 0,191 | -56,807 | -17,708 |
| 60 | 349 (392–427) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,321 | -59,114 | -25,795 |
| 61 | 350 (392–321) | (Nosník) | S 235 | I 250 | 1,440 | N-M-V | 0,187 | -56,541 | -17,767 |
| 62 | 351 (389–424) | (Nosník) | S 235 | I 250 | 2,055 | N-M-V | **2,069** | -579,410 | 65,705 |
| 63 | 352 (379–415) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,130 | -29,506 | 1,863 |
| 64 | 353 (379–308) | (Nosník) | S 235 | I 250 | 1,440 | N-M-V | 0,081 | -26,623 | 8,711 |
| 65 | 354 (376–412) | (Nosník) | S 235 | I 250 | 2,055 | N-M-V | **1,915** | -550,409 | 64,985 |
| 66 | 355 (367–402) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,180 | -30,068 | 8,566 |
| 67 | 356 (367–295) | (Nosník) | S 235 | I 250 | 1,440 | N-M-V | 0,114 | -30,066 | 10,434 |
| 68 | 357 (292–328) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,131 | 4,077 | -5,260 |
| 69 | 358 (290–326) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,128 | 4,077 | -5,260 |
| 70 | 359 (256–292) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,241 | 6,295 | -9,062 |
| 71 | 360 (254–290) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,239 | 6,295 | -9,062 |
| 72 | 361 (282–318) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,358 | -18,850 | -9,791 |
| 73 | 362 (269–305) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,376 | -18,098 | -7,649 |
| 74 | 363 (220–256) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,231 | 9,803 | -14,467 |
| 75 | 364 (218–254) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,230 | 9,803 | -14,467 |
| 76 | 365 (251–287) | (Nosník) | S 235 | I 250 | 1,620 | N-M-Klop. | 0,091 | -26,584 | -13,115 |
| 77 | 366 (249–285) | (Nosník) | S 235 | I 250 | 1,620 | N-M-V | 0,092 | -26,457 | -13,271 |
| 78 | 367 (246–282) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,229 | -16,109 | 11,170 |
| 79 | 368 (236–272) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,081 | -19,337 | 1,028 |
| 80 | 369 (233–269) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,238 | -16,120 | 8,747 |
| 81 | 370 (223–259) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,108 | -19,365 | -0,666 |
| 82 | 371 (184–220) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,238 | 13,139 | -19,528 |
| 83 | 372 (182–218) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,239 | 13,139 | -19,528 |
| 84 | 373 (215–251) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,153 | -23,148 | -7,900 |
| 85 | 374 (213–249) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,162 | -23,029 | -8,054 |
| 86 | 375 (210–246) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,110 | -13,553 | -4,795 |
| 87 | 376 (200–236) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,068 | -16,437 | -2,511 |
| 88 | 377 (197–233) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,108 | -13,564 | -5,194 |
| 89 | 378 (187–223) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,070 | -16,466 | -2,968 |
| 90 | 379 (148–184) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,218 | 16,395 | 20,303 |
| 91 | 380 (146–182) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,218 | 16,395 | 20,303 |
| 92 | 381 (179–215) | (Nosník) | S 235 | I 250 | 1,420 | N-M-V | 0,183 | -19,892 | -3,018 |
| 93 | 382 (177–213) | (Nosník) | S 235 | I 250 | 1,420 | N-M-V | 0,191 | -19,773 | -3,172 |
| 94 | 383 (174–210) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,063 | -11,975 | -2,285 |
| 95 | 384 (164–200) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,045 | -15,161 | -1,475 |
| 96 | 385 (161–197) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,062 | -11,983 | -2,420 |
| 97 | 386 (151–187) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,045 | -13,770 | -1,562 |
| 98 | 387 (112–148) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,743 | 20,986 | 25,618 |
| 99 | 388 (110–146) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,744 | 20,986 | 25,618 |
| 100 | 389 (143–179) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,181 | -17,766 | 0,629 |
| 101 | 390 (141–177) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,189 | -17,647 | 0,474 |
| 102 | 391 (138–174) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,050 | -5,162 | -0,060 |
| 103 | 392 (128–164) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,027 | -11,073 | -0,641 |
| 104 | 393 (125–161) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,053 | -5,157 | -0,346 |
| 105 | 394 (115–151) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,026 | -11,097 | -0,596 |
| 106 | 395 (73–112) | (Nosník) | S 235 | I 250 | 1,751 | N-M-V | 0,780 | 24,668 | -36,745 |
| 107 | 396 (75–110) | (Nosník) | S 235 | I 250 | 1,751 | N-M-V | 0,779 | 24,668 | -36,745 |
| 108 | 397 (106–143) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,170 | -14,385 | 5,770 |
| 109 | 398 (107–141) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,177 | -14,282 | 5,538 |
| 110 | 399 (102–138) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,049 | -7,621 | 0,222 |
| 111 | 400 (92–128) | (Nosník) | S 235 | I 250 | 1,520 | N-M-V | 0,024 | -8,875 | 0,295 |
| 112 | 401 (89–125) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,052 | -7,628 | 0,295 |
| 113 | 402 (79–115) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,023 | -10,108 | 0,054 |
| 114 | 843 (63–107) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,128 | -15,288 | 2,732 |
| 115 | 844 (62–106) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,128 | -15,394 | 2,531 |
| 116 | 845 (65–102) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,039 | 0,052 | 0,782 |
| 117 | 846 (51–92) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,023 | -5,828 | -0,577 |
| 118 | 847 (67–89) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,042 | 0,058 | 1,011 |
| 119 | 848 (53–79) | (Nosník) | S 235 | I 250 | 0 | N-M-V | 0,020 | -5,856 | -0,603 |
| 120 | 1014 (324–288) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,520 | -23,416 | -12,688 |
| 121 | 1015 (322–286) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,507 | -33,152 | 12,485 |
| 122 | 1016 (320–284) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,523 | -23,557 | -12,784 |
| 123 | 1017 (309–273) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,444 | -18,547 | -10,570 |
| 124 | 1018 (296–260) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,443 | -18,548 | 10,590 |
| 125 | 1019 (425–584) | (Nosník) | S 235 | IPN 220 | 0,200 | N-M-V | **1,178** | -27,896 | -27,377 |
| 126 | 1020 (46–584) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,950 | -84,443 | -163,459 |
| 127 | 1021 (421–581) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,002** | -25,670 | 23,752 |
| 128 | 1022 (42–581) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,853 | -59,144 | -150,443 |
| 129 | 1023 (419–579) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,977 | -42,161 | 23,626 |
| 130 | 1024 (38–579) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | **1,121** | -105,399 | -175,748 |
| 131 | 1025 (435–578) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,458** | 66,324 | 36,731 |
| 132 | 1026 (68–578) | (Nosník) | S 235 | IPN 220 | 0,599 | Vw-M-N | **1,229** | -223,298 | 186,619 |
| 133 | 1027 (433–576) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,513** | 10,785 | 37,147 |
| 134 | 1028 (77–576) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | **1,115** | -173,249 | 183,669 |
| 135 | 1029 (431–574) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,459** | 66,248 | 36,739 |
| 136 | 1030 (70–574) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | **1,217** | 16,178 | -195,006 |
| 137 | 1031 (413–572) | (Nosník) | S 235 | IPN 220 | 0,200 | N-M-V | **1,190** | -27,896 | 27,373 |
| 138 | 1032 (48–572) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,896 | -73,876 | 156,652 |
| 139 | 1033 (409–569) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,017** | -25,671 | -23,744 |
| 140 | 1034 (44–569) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,874 | -68,201 | 153,460 |
| 141 | 1035 (407–567) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | 0,995 | -38,561 | -23,634 |
| 142 | 1036 (40–567) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,914 | -91,888 | 159,841 |
| 143 | 1037 (405–566) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,135** | -25,154 | -25,486 |
| 144 | 1038 (36–566) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,206 | -70,811 | 35,897 |
| 145 | 1039 (430–563) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,192** | -28,249 | -29,573 |
| 146 | 1040 (56–563) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,913 | -69,235 | 160,056 |
| 147 | 1041 (428–562) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,175** | -37,498 | 28,659 |
| 148 | 1042 (57–562) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | **1,464** | -137,289 | -208,903 |
| 149 | 1043 (426–560) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,198** | -28,322 | -29,671 |
| 150 | 1044 (58–560) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,907 | -71,003 | 158,931 |
| 151 | 1045 (416–502) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,049** | -28,111 | -24,836 |
| 152 | 1046 (31–502) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 0,915 | -109,257 | -159,242 |
| 153 | 1047 (403–501) | (Nosník) | S 235 | IPN 220 | 0 | N-M-V | **1,076** | -28,112 | 24,856 |
| 154 | 1048 (33–501) | (Nosník) | S 235 | IPN 220 | 0,599 | N-M-V | 1,000 | -117,810 | 168,726 |
| 155 | 1049 (400–435) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,140** | -135,380 | -24,568 |
| 156 | 1050 (398–433) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,370** | -129,497 | -32,533 |
| 157 | 1051 (396–431) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,130** | -135,401 | -24,587 |
| 158 | 1052 (395–430) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,014** | -29,295 | -25,270 |
| 159 | 1053 (395–324) | (Nosník) | S 235 | IPN 220 | 1,440 | N-M-Klop. | 0,262 | -25,893 | -17,289 |
| 160 | 1054 (393–428) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,020** | -40,315 | 24,247 |
| 161 | 1055 (393–322) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,260 | -36,755 | 17,904 |
| 162 | 1056 (391–426) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | **1,019** | -29,395 | -25,369 |
| 163 | 1057 (391–320) | (Nosník) | S 235 | IPN 220 | 1,440 | N-M-Klop. | 0,262 | -26,022 | -17,384 |
| 164 | 1058 (390–425) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,956 | -24,524 | -23,338 |
| 165 | 1059 (386–421) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,838 | -26,297 | 20,171 |
| 166 | 1060 (384–419) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,888 | -66,137 | -18,488 |
| 167 | 1061 (382–311) | (Nosník) | S 355 | IPN 220 | 1,440 | N-M-Klop. | 0,268 | -22,978 | 14,509 |
| 168 | 1062 (380–416) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,856 | -24,669 | -21,066 |
| 169 | 1063 (380–309) | (Nosník) | S 235 | IPN 220 | 1,440 | N-M-Klop. | 0,220 | -22,583 | 13,917 |
| 170 | 1064 (377–413) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,958 | -24,524 | 23,334 |
| 171 | 1065 (373–409) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,838 | -26,298 | -20,163 |
| 172 | 1066 (336–407) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,889 | -58,714 | 18,488 |
| 173 | 1067 (370–405) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,909 | -25,702 | -21,899 |
| 174 | 1068 (370–298) | (Nosník) | S 235 | IPN 220 | 1,440 | N-M-Klop. | 0,244 | -22,176 | -15,440 |
| 175 | 1069 (368–403) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,873 | -24,670 | 21,086 |
| 176 | 1070 (368–296) | (Nosník) | S 235 | IPN 220 | 1,440 | N-M-Klop. | 0,228 | -22,584 | -13,890 |
| 177 | 1071 (293–329) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,745 | -129,513 | -16,402 |
| 178 | 1072 (291–327) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,868 | -122,428 | -22,353 |
| 179 | 1073 (289–325) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,743 | -129,534 | -16,421 |
| 180 | 1074 (257–293) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,875 | -126,926 | -12,313 |
| 181 | 1075 (255–291) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | **1,073** | -119,215 | -17,020 |
| 182 | 1076 (253–289) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,873 | -126,947 | -12,333 |
| 183 | 1077 (283–319) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,513 | -18,402 | -12,881 |
| 184 | 1078 (279–315) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,453 | -20,175 | 11,216 |
| 185 | 1079 (277–313) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,491 | -44,780 | 11,227 |
| 186 | 1080 (311–275) | (Nosník) | S 355 | IPN 220 | 1,520 | N-M-Klop. | 0,420 | -19,627 | 10,247 |
| 187 | 1081 (270–306) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,514 | -18,402 | 12,877 |
| 188 | 1082 (266–302) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,457 | -20,176 | -11,202 |
| 189 | 1083 (264–300) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,482 | -38,849 | -11,237 |
| 190 | 1084 (262–298) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,455 | -19,580 | -11,178 |
| 191 | 1085 (221–257) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,892 | -124,374 | -8,367 |
| 192 | 1086 (219–255) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | **1,105** | -116,037 | -11,830 |
| 193 | 1087 (217–253) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,890 | -124,395 | -8,386 |
| 194 | 1088 (252–288) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,756 | -20,830 | -8,673 |
| 195 | 1089 (250–286) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,737 | -29,939 | 8,779 |
| 196 | 1090 (248–284) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,760 | -20,970 | -8,769 |
| 197 | 1091 (247–283) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,721 | -15,690 | -7,654 |
| 198 | 1092 (243–279) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,638 | -17,463 | 6,680 |
| 199 | 1093 (241–277) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,677 | -43,843 | 7,067 |
| 200 | 1094 (239–275) | (Nosník) | S 355 | IPN 220 | 1,620 | N-M-Klop. | 0,548 | -16,914 | 5,711 |
| 201 | 1095 (237–273) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,638 | -15,835 | -7,250 |
| 202 | 1096 (234–270) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,722 | -15,690 | 7,650 |
| 203 | 1097 (230–266) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,641 | -17,464 | -6,666 |
| 204 | 1098 (228–264) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,668 | -37,926 | -7,077 |
| 205 | 1099 (226–262) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,639 | -16,867 | -6,643 |
| 206 | 1100 (224–260) | (Nosník) | S 235 | IPN 220 | 1,620 | N-M-Klop. | 0,636 | -15,836 | 7,270 |
| 207 | 1101 (185–221) | (Nosník) | S 235 | IPN 220 | 1,420 | N-M-Klop. | 0,841 | -121,941 | -4,672 |
| 208 | 1102 (183–219) | (Nosník) | S 235 | IPN 220 | 1,420 | N-M-Klop. | **1,019** | -113,004 | -6,970 |
| 209 | 1103 (181–217) | (Nosník) | S 235 | IPN 220 | 1,420 | N-M-Klop. | 0,840 | -121,962 | -4,691 |
| 210 | 1104 (216–252) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,836 | -18,305 | -3,334 |
| 211 | 1105 (214–250) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,819 | -26,761 | 3,588 |
| 212 | 1106 (212–248) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,844 | -18,418 | -3,428 |
| 213 | 1107 (211–247) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,787 | -13,013 | -2,597 |
| 214 | 1108 (207–243) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,691 | -14,786 | 2,293 |
| 215 | 1109 (205–241) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,729 | -34,398 | 2,382 |
| 216 | 1110 (203–239) | (Nosník) | S 355 | IPN 220 | 1,520 | N-M-Klop. | 0,568 | -14,237 | 1,324 |
| 217 | 1111 (201–237) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,696 | -13,157 | -2,684 |
| 218 | 1112 (198–234) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,787 | -13,012 | 2,595 |
| 219 | 1113 (194–230) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,692 | -14,787 | -2,279 |
| 220 | 1114 (192–228) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,718 | -28,460 | -2,392 |
| 221 | 1115 (190–226) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,692 | -14,190 | -2,256 |
| 222 | 1116 (188–224) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,694 | -13,158 | 2,697 |
| 223 | 1117 (149–185) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,798 | -119,474 | -0,844 |
| 224 | 1118 (147–183) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,878 | -109,937 | -1,976 |
| 225 | 1119 (145–181) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,797 | -119,494 | -0,863 |
| 226 | 1120 (180–216) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,824 | -16,368 | 0,431 |
| 227 | 1121 (178–214) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,807 | -24,224 | -0,359 |
| 228 | 1122 (176–212) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,832 | -16,481 | 0,336 |
| 229 | 1123 (175–211) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,773 | -10,955 | 0,939 |
| 230 | 1124 (171–207) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,677 | -12,729 | -0,860 |
| 231 | 1125 (169–205) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,712 | -33,692 | -0,954 |
| 232 | 1126 (167–203) | (Nosník) | S 355 | IPN 220 | 0 | N-M-Klop. | 0,550 | -12,180 | -1,829 |
| 233 | 1127 (165–201) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,682 | -11,100 | 0,701 |
| 234 | 1128 (162–198) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,773 | -10,955 | -0,941 |
| 235 | 1129 (158–194) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,677 | -12,729 | 0,874 |
| 236 | 1130 (156–192) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,703 | -27,731 | 0,944 |
| 237 | 1131 (154–190) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,677 | -12,133 | 0,897 |
| 238 | 1132 (152–188) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,681 | -11,101 | -0,687 |
| 239 | 1133 (113–149) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,826 | -116,964 | 3,046 |
| 240 | 1134 (111–147) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,653 | -104,395 | 2,034 |
| 241 | 1135 (109–145) | (Nosník) | S 235 | IPN 220 | 1,520 | N-M-Klop. | 0,825 | -116,984 | 3,026 |
| 242 | 1136 (144–180) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,808 | -13,908 | 5,432 |
| 243 | 1137 (142–178) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,792 | -21,191 | -5,219 |
| 244 | 1138 (140–176) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,818 | -14,048 | 5,337 |
| 245 | 1139 (139–175) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,745 | -8,403 | 5,666 |
| 246 | 1140 (135–171) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,650 | -10,176 | -4,967 |
| 247 | 1141 (133–169) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,681 | -24,157 | -4,735 |
| 248 | 1142 (131–167) | (Nosník) | S 355 | IPN 220 | 0 | N-M-Klop. | 0,518 | -9,627 | -5,936 |
| 249 | 1143 (129–165) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,659 | -8,548 | 4,971 |
| 250 | 1144 (126–162) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,746 | -8,402 | -5,669 |
| 251 | 1145 (122–158) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,650 | -10,177 | 4,981 |
| 252 | 1146 (120–156) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,678 | -23,346 | 4,724 |
| 253 | 1147 (118–154) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,651 | -9,580 | 5,005 |
| 254 | 1148 (116–152) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,658 | -8,548 | -4,958 |
| 255 | 1149 (69–113) | (Nosník) | S 235 | IPN 220 | 1,625 | N-M-V | **2,196** | -114,335 | 7,106 |
| 256 | 1150 (72–111) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,421 | -104,026 | 7,468 |
| 257 | 1151 (71–109) | (Nosník) | S 235 | IPN 220 | 1,625 | N-M-V | **2,197** | -114,337 | 7,089 |
| 258 | 1152 (104–144) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,663 | -11,425 | 10,695 |
| 259 | 1153 (108–142) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,655 | -18,068 | -10,313 |
| 260 | 1154 (105–140) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,673 | -11,539 | 10,600 |
| 261 | 1155 (103–139) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,596 | -5,770 | 10,640 |
| 262 | 1156 (99–135) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,520 | -7,543 | -9,287 |
| 263 | 1157 (95–131) | (Nosník) | S 355 | IPN 220 | 0 | N-M-Klop. | 0,407 | -6,995 | -10,256 |
| 264 | 1158 (93–129) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,529 | -5,915 | 9,455 |
| 265 | 1159 (90–126) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,597 | -5,770 | -10,643 |
| 266 | 1160 (86–122) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,520 | -7,544 | 9,301 |
| 267 | 1161 (82–118) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,521 | -6,948 | 9,324 |
| 268 | 1162 (80–116) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,528 | -5,916 | -9,442 |
| 269 | 1163 (59–108) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,464 | -14,771 | -16,091 |
| 270 | 1164 (61–105) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,440 | -7,024 | 16,314 |
| 271 | 1165 (60–104) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,425 | -6,885 | 16,021 |
| 272 | 1166 (47–103) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,350 | -2,282 | 15,576 |
| 273 | 1167 (43–99) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,306 | -4,935 | -13,568 |
| 274 | 1168 (39–97) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,319 | -4,969 | -14,034 |
| 275 | 1169 (35–95) | (Nosník) | S 355 | IPN 220 | 0 | N-M-Klop. | 0,238 | -4,387 | -14,537 |
| 276 | 1170 (32–93) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,311 | -2,427 | 13,901 |
| 277 | 1171 (49–90) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,350 | -2,282 | -15,578 |
| 278 | 1172 (45–86) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,306 | -4,936 | 13,581 |
| 279 | 1173 (41–84) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,317 | -4,969 | 14,024 |
| 280 | 1174 (37–82) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,306 | -4,340 | 13,605 |
| 281 | 1175 (34–80) | (Nosník) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,311 | -2,428 | -13,889 |
| 282 | 1176 (1452–6662) | (Nosník) | S 355 | IPN 220 | 1,000 | N-M-V | 0,175 | -2,170 | 19,178 |
| 283 | 1177 (1451–6661) | (Nosník) | S 355 | IPN 220 | 1,000 | N-M-Vzp | 0,250 | -105,886 | 1,954 |
| — | — | — | — | — | — | — | — | — | — |
|  | 20 (1011–318) | (Nosník) | S 235 | I 250 | 0 | N-M-V | **4,405** | -20,098 | 303,245 |

|  | **Konstr.**  **prv.** | **My**  **[kNm]** | **Ky** | **Kz** | **Kw** | **Za** | **C1** | **C2** | **C3** | **Křivka**  **třída N** | **N** | **Křivka**  **třída LT** | **LT** | **a**  **[m]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 (133–1509) | -32,888 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,932 | c | 1,000 |  |
| 2 | 3 (97–1509) | 29,017 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,921 | c | 1,000 |  |
| 3 | 4 (120–1499) | -35,862 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,932 | c | 1,000 |  |
| 4 | 5 (506–1035) | -22,334 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,800 | c | 1,000 |  |
| 5 | 8 (1035–12) | -919,160 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,514 | c | 1,000 |  |
| 6 | 11 (84–1499) | -30,184 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,921 | c | 1,000 |  |
| 7 | 19 (389–1011) | 269,146 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 8 | 20 (1011–318) | -289,156 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 9 | 21 (1450–1452) | 8,065 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 0,858 |  |
| 10 | 22 (376–1012) | 260,403 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 11 | 23 (1012–305) | -248,028 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 12 | 24 (1449–1451) | 8,482 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,414 | c | 0,857 |  |
| 13 | 25 (6–7) | -207,739 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,234 | c | 1,000 |  |
| 14 | 27 (1–2) | 222,303 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,234 | c | 1,000 |  |
| 15 | 28 (8–9) | -148,415 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,234 | c | 1,000 |  |
| 16 | 29 (323–883) | -45,102 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 17 | 30 (287–883) | 12,358 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,958 |  |
| 18 | 32 (321–885) | -44,960 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 19 | 33 (285–885) | 9,468 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,961 |  |
| 20 | 34 (3–4) | -400,080 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,234 | c | 1,000 |  |
| 21 | 35 (505–1000) | -112,076 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,918 | c | 1,000 |  |
| 22 | 36 (1000–14) | -280,407 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,387 | c | 1,000 |  |
| 23 | 38 (308–988) | 13,840 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 24 | 39 (272–988) | 14,446 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,977 |  |
| 25 | 41 (295–977) | 17,222 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 26 | 42 (259–977) | 17,672 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,970 |  |
| 27 | 47 (509–877) | -20,552 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,168 | c | 0,915 |  |
| 28 | 48 (507–875) | -19,203 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,168 | c | 0,911 |  |
| 29 | 270 (434–577) | -18,319 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 30 | 271 (74–577) | 21,298 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 31 | 272 (432–575) | -18,319 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 32 | 273 (76–575) | 20,188 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 33 | 274 (424–573) | -36,906 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 34 | 275 (64–573) | -36,642 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 35 | 280 (412–565) | -43,670 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 36 | 281 (66–565) | -42,239 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 37 | 282 (415–564) | -13,824 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 38 | 283 (50–564) | -11,024 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 39 | 287 (402–561) | -24,006 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 40 | 288 (52–561) | -18,666 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 41 | 330 (525–526) | -30,796 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 42 | 331 (523–524) | -0,128 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 43 | 332 (521–522) | -7,063 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 44 | 333 (519–520) | 0 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 45 | 334 (517–518) | 2,526 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 46 | 335 (427–516) | 80,985 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 47 | 336 (55–516) | -166,622 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 48 | 337 (429–515) | 80,437 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 49 | 338 (54–515) | -153,156 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 50 | 339 (513–514) | -7,908 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 51 | 340 (511–512) | 0,253 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 52 | 341 (509–510) | -82,055 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 53 | 342 (507–508) | -56,520 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,809 | c | 1,000 |  |
| 54 | 343 (11–506) | -556,840 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 55 | 344 (13–505) | -240,770 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 56 | 345 (399–434) | -8,840 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 57 | 346 (397–432) | -8,841 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 58 | 347 (394–429) | 50,767 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 59 | 348 (394–323) | -27,455 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,995 |  |
| 60 | 349 (392–427) | 51,278 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 61 | 350 (392–321) | -27,238 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,995 |  |
| 62 | 351 (389–424) | 101,245 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 0,977 |  |
| 63 | 352 (379–415) | -16,301 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 64 | 353 (379–308) | 7,298 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 0,981 |  |
| 65 | 354 (376–412) | 94,638 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 0,971 |  |
| 66 | 355 (367–402) | -25,293 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,958 | c | 1,000 |  |
| 67 | 356 (367–295) | 13,643 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 68 | 357 (292–328) | 15,435 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 69 | 358 (290–326) | 15,435 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 70 | 359 (256–292) | 38,058 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 71 | 360 (254–290) | 38,058 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 72 | 361 (282–318) | 14,010 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 73 | 362 (269–305) | 15,465 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 74 | 363 (220–256) | 44,652 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 75 | 364 (218–254) | 44,653 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 76 | 365 (251–287) | -15,104 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 0,973 |  |
| 77 | 366 (249–285) | -15,213 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 0,973 |  |
| 78 | 367 (246–282) | 0,050 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 1,000 |  |
| 79 | 368 (236–272) | 9,898 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 1,000 |  |
| 80 | 369 (233–269) | 4,103 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 1,000 |  |
| 81 | 370 (223–259) | 13,007 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,988 | c | 1,000 |  |
| 82 | 371 (184–220) | 44,101 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 83 | 372 (182–218) | 44,102 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 84 | 373 (215–251) | -28,219 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 85 | 374 (213–249) | -28,572 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 86 | 375 (210–246) | 17,887 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 87 | 376 (200–236) | 11,322 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 88 | 377 (197–233) | 18,016 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 89 | 378 (187–223) | 11,689 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 90 | 379 (148–184) | -32,641 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 91 | 380 (146–182) | -32,640 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 92 | 381 (179–215) | -33,368 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 93 | 382 (177–213) | -33,939 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 94 | 383 (174–210) | 5,708 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 95 | 384 (164–200) | 2,861 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 96 | 385 (161–197) | 5,294 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 97 | 386 (151–187) | 2,639 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |
| 98 | 387 (112–148) | 18,370 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 0,956 |  |
| 99 | 388 (110–146) | 18,372 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 0,956 |  |
| 100 | 389 (143–179) | -33,303 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 101 | 390 (141–177) | -33,874 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 102 | 391 (138–174) | -1,328 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 103 | 392 (128–164) | 0,983 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 104 | 393 (125–161) | -1,704 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 105 | 394 (115–151) | 0,899 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 106 | 395 (73–112) | -64,158 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 107 | 396 (75–110) | -64,157 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | a0 | 1,000 | c | 1,000 |  |
| 108 | 397 (106–143) | -31,159 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 109 | 398 (107–141) | -31,713 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 110 | 399 (102–138) | -0,132 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 111 | 400 (92–128) | 0,890 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 112 | 401 (89–125) | -0,535 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 113 | 402 (79–115) | 0,622 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,995 | c | 1,000 |  |
| 114 | 843 (63–107) | -5,282 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,979 | c | 1,000 |  |
| 115 | 844 (62–106) | -4,817 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,979 | c | 1,000 |  |
| 116 | 845 (65–102) | -1,579 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,999 | c | 1,000 |  |
| 117 | 846 (51–92) | 1,275 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,999 | c | 1,000 |  |
| 118 | 847 (67–89) | -1,916 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,999 | c | 1,000 |  |
| 119 | 848 (53–79) | 1,314 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 0,999 | c | 1,000 |  |
| 120 | 1014 (324–288) | -33,551 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 121 | 1015 (322–286) | 31,649 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 122 | 1016 (320–284) | -33,717 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 123 | 1017 (309–273) | -27,915 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 124 | 1018 (296–260) | 27,738 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 125 | 1019 (425–584) | 79,671 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 126 | 1020 (46–584) | -69,580 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 127 | 1021 (421–581) | -73,754 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 128 | 1022 (42–581) | -63,951 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 129 | 1023 (419–579) | -73,777 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 130 | 1024 (38–579) | -75,265 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 131 | 1025 (435–578) | -110,614 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 132 | 1026 (68–578) | 79,258 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 133 | 1027 (433–576) | -113,678 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 134 | 1028 (77–576) | 78,726 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 135 | 1029 (431–574) | -110,724 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 136 | 1030 (70–574) | -83,158 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 1,000 |  |
| 137 | 1031 (413–572) | -79,615 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 138 | 1032 (48–572) | 66,673 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 139 | 1033 (409–569) | 73,633 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 140 | 1034 (44–569) | 65,247 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 141 | 1035 (407–567) | 73,873 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 142 | 1036 (40–567) | 67,734 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 143 | 1037 (405–566) | 79,469 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 144 | 1038 (36–566) | 15,626 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 145 | 1039 (430–563) | 90,450 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 146 | 1040 (56–563) | 67,590 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 147 | 1041 (428–562) | -89,194 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 148 | 1042 (57–562) | -95,217 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 149 | 1043 (426–560) | 90,898 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 150 | 1044 (58–560) | 67,265 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 151 | 1045 (416–502) | 75,861 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 152 | 1046 (31–502) | -67,798 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 153 | 1047 (403–501) | -76,158 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,873 | c | 1,000 |  |
| 154 | 1048 (33–501) | 71,507 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,959 | c | 1,000 |  |
| 155 | 1049 (400–435) | 54,583 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 0,833 |  |
| 156 | 1050 (398–433) | 75,117 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,832 |  |
| 157 | 1051 (396–431) | 54,859 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 1,000 | c | 0,833 |  |
| 158 | 1052 (395–430) | 61,241 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 159 | 1053 (395–324) | -13,710 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,809 |  |
| 160 | 1054 (393–428) | -60,701 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,835 |  |
| 161 | 1055 (393–322) | -12,927 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,800 |  |
| 162 | 1056 (391–426) | 61,593 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 163 | 1057 (391–320) | -13,732 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,808 |  |
| 164 | 1058 (390–425) | 58,095 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,837 |  |
| 165 | 1059 (386–421) | -50,260 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,837 |  |
| 166 | 1060 (384–419) | 46,803 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,834 |  |
| 167 | 1061 (382–311) | 21,599 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,641 | c | 0,820 |  |
| 168 | 1062 (380–416) | 51,300 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 169 | 1063 (380–309) | 11,399 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,816 |  |
| 170 | 1064 (377–413) | -58,042 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,837 |  |
| 171 | 1065 (373–409) | 50,148 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 172 | 1066 (336–407) | -46,784 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,834 |  |
| 173 | 1067 (370–405) | 54,141 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 174 | 1068 (370–298) | -11,656 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,798 |  |
| 175 | 1069 (368–403) | -51,577 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,547 | c | 0,836 |  |
| 176 | 1070 (368–296) | -11,685 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,750 | c | 0,821 |  |
| 177 | 1071 (293–329) | -37,291 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 178 | 1072 (291–327) | -48,502 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,903 |  |
| 179 | 1073 (289–325) | -37,112 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,904 |  |
| 180 | 1074 (257–293) | -46,851 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,892 |  |
| 181 | 1075 (255–291) | -61,723 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,892 |  |
| 182 | 1076 (253–289) | -46,704 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,892 |  |
| 183 | 1077 (283–319) | -33,348 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 184 | 1078 (279–315) | 29,025 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 185 | 1079 (277–313) | 29,363 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,907 |  |
| 186 | 1080 (311–275) | 37,860 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,608 | c | 0,829 |  |
| 187 | 1081 (270–306) | 33,382 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 188 | 1082 (266–302) | -29,148 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 189 | 1083 (264–300) | -29,294 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,907 |  |
| 190 | 1084 (262–298) | -29,370 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,906 |  |
| 191 | 1085 (221–257) | -49,060 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,901 |  |
| 192 | 1086 (219–255) | -65,227 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,902 |  |
| 193 | 1087 (217–253) | -48,942 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,901 |  |
| 194 | 1088 (252–288) | -48,799 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,887 |  |
| 195 | 1089 (250–286) | 46,755 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,888 |  |
| 196 | 1090 (248–284) | -49,120 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,887 |  |
| 197 | 1091 (247–283) | -46,898 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 198 | 1092 (243–279) | 40,770 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 199 | 1093 (241–277) | 41,108 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 200 | 1094 (239–275) | 48,009 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,568 | c | 0,798 |  |
| 201 | 1095 (237–273) | -40,521 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,887 |  |
| 202 | 1096 (234–270) | 46,925 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 203 | 1097 (230–266) | -40,871 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 204 | 1098 (228–264) | -41,054 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 205 | 1099 (226–262) | -41,054 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,886 |  |
| 206 | 1100 (224–260) | 40,377 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,692 | c | 0,887 |  |
| 207 | 1101 (185–221) | -45,088 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,913 |  |
| 208 | 1102 (183–219) | -60,548 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,914 |  |
| 209 | 1103 (181–217) | -44,999 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,913 |  |
| 210 | 1104 (216–252) | -54,891 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,892 |  |
| 211 | 1105 (214–250) | 52,966 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,893 |  |
| 212 | 1106 (212–248) | -55,361 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,892 |  |
| 213 | 1107 (211–247) | -51,890 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 214 | 1108 (207–243) | 45,050 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 215 | 1109 (205–241) | 45,521 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 216 | 1110 (203–239) | 50,799 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,608 | c | 0,805 |  |
| 217 | 1111 (201–237) | -45,391 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,892 |  |
| 218 | 1112 (198–234) | 51,903 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 219 | 1113 (194–230) | -45,129 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 220 | 1114 (192–228) | -45,484 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 221 | 1115 (190–226) | -45,276 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,891 |  |
| 222 | 1116 (188–224) | 45,314 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,892 |  |
| 223 | 1117 (149–185) | -35,958 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,888 |  |
| 224 | 1118 (147–183) | -49,167 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,890 |  |
| 225 | 1119 (145–181) | -35,899 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,888 |  |
| 226 | 1120 (180–216) | -54,909 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,903 |  |
| 227 | 1121 (178–214) | 52,974 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,902 |  |
| 228 | 1122 (176–212) | -55,380 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,903 |  |
| 229 | 1123 (175–211) | -51,909 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,905 |  |
| 230 | 1124 (171–207) | 45,066 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,905 |  |
| 231 | 1125 (169–205) | 45,537 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,904 |  |
| 232 | 1126 (167–203) | 50,805 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,650 | c | 0,827 |  |
| 233 | 1127 (165–201) | -45,407 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,904 |  |
| 234 | 1128 (162–198) | 51,922 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,905 |  |
| 235 | 1129 (158–194) | -45,145 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,905 |  |
| 236 | 1130 (156–192) | -45,499 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,904 |  |
| 237 | 1131 (154–190) | -45,291 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,905 |  |
| 238 | 1132 (152–188) | 45,330 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,757 | c | 0,904 |  |
| 239 | 1133 (113–149) | -20,959 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,893 |  |
| 240 | 1134 (111–147) | -34,299 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,892 |  |
| 241 | 1135 (109–145) | -20,928 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,893 |  |
| 242 | 1136 (144–180) | -53,502 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,895 |  |
| 243 | 1137 (142–178) | 51,866 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,896 |  |
| 244 | 1138 (140–176) | -54,106 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,895 |  |
| 245 | 1139 (139–175) | -49,806 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 246 | 1140 (135–171) | 43,234 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 247 | 1141 (133–169) | 43,778 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,896 |  |
| 248 | 1142 (131–167) | 47,593 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,608 | c | 0,818 |  |
| 249 | 1143 (129–165) | -43,849 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 250 | 1144 (126–162) | 49,816 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 251 | 1145 (122–158) | -43,295 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 252 | 1146 (120–156) | -43,755 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,896 |  |
| 253 | 1147 (118–154) | -43,406 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 254 | 1148 (116–152) | 43,791 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,897 |  |
| 255 | 1149 (69–113) | 0,773 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,690 | c | 0,872 |  |
| 256 | 1150 (72–111) | -14,980 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,585 | c | 0,816 |  |
| 257 | 1151 (71–109) | 0,769 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,690 | c | 0,872 |  |
| 258 | 1152 (104–144) | -44,304 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,904 |  |
| 259 | 1153 (108–142) | 43,227 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,904 |  |
| 260 | 1154 (105–140) | -45,057 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,904 |  |
| 261 | 1155 (103–139) | -40,292 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 262 | 1156 (99–135) | 34,969 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 263 | 1157 (95–131) | 37,854 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,608 | c | 0,827 |  |
| 264 | 1158 (93–129) | -35,631 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 265 | 1159 (90–126) | 40,299 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 266 | 1160 (86–122) | -35,009 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 267 | 1161 (82–118) | -35,083 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 268 | 1162 (80–116) | 35,593 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,725 | c | 0,905 |  |
| 269 | 1163 (59–108) | 26,841 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,585 | c | 0,804 |  |
| 270 | 1164 (61–105) | -28,051 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,690 | c | 0,876 |  |
| 271 | 1165 (60–104) | -27,152 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,690 | c | 0,875 |  |
| 272 | 1166 (47–103) | -23,257 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,889 |  |
| 273 | 1167 (43–99) | 20,175 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,889 |  |
| 274 | 1168 (39–97) | 20,854 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,890 |  |
| 275 | 1169 (35–95) | 21,587 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,631 | c | 0,808 |  |
| 276 | 1170 (32–93) | -20,632 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,890 |  |
| 277 | 1171 (49–90) | 23,260 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,889 |  |
| 278 | 1172 (45–86) | -20,193 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,889 |  |
| 279 | 1173 (41–84) | -20,835 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,890 |  |
| 280 | 1174 (37–82) | -20,231 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,890 |  |
| 281 | 1175 (34–80) | 20,617 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,742 | c | 0,890 |  |
| 282 | 1176 (1452–6662) | -20,010 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,414 | c | 1,000 |  |
| 283 | 1177 (1451–6661) | -2,185 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | b | 0,414 | c | 1,000 |  |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
|  | 20 (1011–318) | -289,156 | 1,000 | 1,000 | 1,000 | 0,500 | — | — | — | c | 1,000 | c | 1,000 |  |

## Nosníky

### vlastní tíha: Vlastní tíha nosníku [Části]

|  | ** [kg]** |
| --- | --- |
| 1–46 | 4044,178 |
| 78–349 | 16632,710 |
| 357–360 | 347,146 |
| 365–373 | 609,436 |
| 408–420 | 956,582 |
| 828 | 28,159 |
| 863–864 | 101,534 |
| 866–943 | 4814,679 |
| 946–989 | 1448,919 |
| 992–1003 | 628,093 |
| **Celkem** | **29611,436** |

### vlastní tíha: Vlastní tíha příhradoviny [Části]

|  | ** [kg]** |
| --- | --- |
| 31 | 3,575 |
| 64 | 3,575 |
| **Celkem** | **7,150** |

### vlastní tíha: Vlastní tíha žebra [Části]

|  | ** [kg]** |
| --- | --- |
| 5–103 | 3985,228 |
| 107–118 | 276,887 |
| 124–2474 | 49302,772 |
| **Celkem** | **53564,887** |

### opláštění: Plošné zatížení na nosnících a žebrech [Části]

|  | **Směr** | **Typ** | **Komp.** | **Hodnota**  **[kN/m2]** | **Xref**  **[m]** | **Yref**  **[m]** | **Zref**  **[m]** | **X**  **[m]** | **Y**  **[m]** | **Z**  **[m]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | 30,390 | 15,680 |
|  |  |  | pY = | 0 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  | pZ = | -3,17 |  |  |  | 9,350 | -1,350 | 16,152 |
|  |  |  |  |  |  |  |  | 18,700 | -1,350 | 15,680 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 9,350 | -1,350 | 16,152 |
|  |  |  | pY = | 0 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  | pZ = | -3,17 |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | -1,350 | 15,680 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | 30,390 | 0 |
|  |  |  | pY = | 0 |  |  |  | 18,700 | 30,390 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 9,350 | 30,390 | 16,152 |
|  |  |  |  |  |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | 30,390 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 0 | 30,390 | 0 |
|  |  |  | pY = | 0 |  |  |  | 0 | 30,390 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 0 | -1,350 | 15,680 |
|  |  |  |  |  |  |  |  | 0 | -1,350 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 0 | -1,350 | 0 |
|  |  |  | pY = | 0 |  |  |  | 0 | -1,350 | 15,680 |
|  |  |  | pZ = | -0,26 |  |  |  | 18,700 | -1,350 | 15,680 |
|  |  |  |  |  |  |  |  | 18,700 | -1,350 | 0 |
|  | Globální | Konstant. | pX = | 0 |  |  |  | 18,700 | -1,350 | 15,680 |
|  |  |  | pY = | 0 |  |  |  | 18,700 | -1,350 | 0 |
|  |  |  | pZ = | -0,26 |  |  |  | 18,700 | 30,390 | 0 |
|  |  |  |  |  |  |  |  | 18,700 | 30,390 | 15,680 |

### Lineární statická analýza

#### Posuny

Deformace na nosnících

Kritické Min, Max.

### Deformace na nosnících [Lineární,(MSP Kvazi-stálá) Kritická, Části]

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **ex**  **[mm]** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 318 | 6 | U 180 | ex | min | 0 | (376) | **-1,316** |
| 158 | 6 | U 180 |  | max | 0 | (187) | **7,695** |
| 159 | 6 | U 180 |  | max | 0 | (186) | **7,693** |
| 178 | 6 | U 180 | ez | min | 0 | (187) | -0,549 |
| 287 | 6 | U 180 |  | max | 3,700 | (328) | -0,074 |
| 288 | 6 | U 180 |  | max | 0 | (328) | -0,076 |
| 285 | 6 | U 180 | fy | min | 0 | (325) | 1,715 |
| 288 | 6 | U 180 |  | max | 0 | (328) | -0,076 |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **ez**  **[mm]** | **fy**  **[rad]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — | — |
| 318 | 6 | U 180 | ex | min | 0 | (376) | -4,660 | -0,00136 |
| 158 | 6 | U 180 |  | max | 0 | (187) | -0,549 | 0,00140 |
| 159 | 6 | U 180 |  | max | 0 | (186) | -2,436 | -0,00075 |
| 178 | 6 | U 180 | ez | min | 0 | (187) | **-7,695** | -0,00113 |
| 287 | 6 | U 180 |  | max | 3,700 | (328) | **216,765** | -0,05882 |
| 288 | 6 | U 180 |  | max | 0 | (328) | **216,765** | 0,08686 |
| 285 | 6 | U 180 | fy | min | 0 | (325) | -0,784 | **-0,08673** |
| 288 | 6 | U 180 |  | max | 0 | (328) | 216,765 | **0,08686** |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Kritická kombinace** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 318 | 6 | U 180 | ex | min | 0 | (376) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 158 | 6 | U 180 |  | max | 0 | (187) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 159 | 6 | U 180 |  | max | 0 | (186) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 178 | 6 | U 180 | ez | min | 0 | (187) | [vlastní tíha+opláštění+podlahy] 0,3\*proměnné užitné |
| 287 | 6 | U 180 |  | max | 3,700 | (328) | [vlastní tíha+opláštění+podlahy] |
| 288 | 6 | U 180 |  | max | 0 | (328) | [vlastní tíha+opláštění+podlahy] |
| 285 | 6 | U 180 | fy | min | 0 | (325) | [vlastní tíha+opláštění+podlahy] |
| 288 | 6 | U 180 |  | max | 0 | (328) | [vlastní tíha+opláštění+podlahy] |

#### Vnitřní síly

Vnitřní síly na nosníku

Kritické Min, Max.

### Vnitřní síly na nosníku [Lineární,(Vše MSÚ (a, b)) Kritická, Části]

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Nx**  **[kN]** | **Vz**  **[kN]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — | — |
| 275 | 6 | U 180 | Nx | min | 0 | (317) | **-311,204** | 0,014 |
| 309 | 6 | U 180 |  | max | 0 | (388) | **310,855** | 0,018 |
| 372 | 9 | IPN 200 | Vz | min | 0,390 | (460) | -15,771 | **-81,475** |
| 385 | 9 | IPN 200 |  | min | 0,390 | (492) | -15,797 | **-81,480** |
| 372 | 9 | IPN 200 |  | max | 0 | (459) | 21,610 | **76,183** |
| 385 | 9 | IPN 200 |  | max | 0 | (491) | 21,623 | **76,207** |
| 506 | 26 | HE 220 B | My | min | 0 | (381) | -91,840 | 24,269 |
| 423 | 9 | IPN 200 |  | max | 3,000 | (1459) | 28,181 | 10,872 |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **My**  **[kNm]** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 275 | 6 | U 180 | Nx | min | 0 | (317) | 0 |
| 309 | 6 | U 180 |  | max | 0 | (388) | 0 |
| 372 | 9 | IPN 200 | Vz | min | 0,390 | (460) | -12,473 |
| 385 | 9 | IPN 200 |  | min | 0,390 | (492) | -12,473 |
| 372 | 9 | IPN 200 |  | max | 0 | (459) | -14,456 |
| 385 | 9 | IPN 200 |  | max | 0 | (491) | -14,454 |
| 506 | 26 | HE 220 B | My | min | 0 | (381) | **-48,219** |
| 423 | 9 | IPN 200 |  | max | 3,000 | (1459) | **90,176** |

|  | **Skoř.** | **Jméno**  **průřezu** | **C** | **min.**  **max.** | **Poz.**  **[m]** | **Uzel** | **Kritická kombinace** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| — | — | — | — | — | — | — | — |
| 275 | 6 | U 180 | Nx | min | 0 | (317) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*proměnné užitné (1,5\*0,5\*Sníh UD+1,5\*0,6\*Vítr Y+.S.P) |
| 309 | 6 | U 180 |  | max | 0 | (388) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*proměnné užitné (1,5\*0,6\*Vítr Y-.S.S) |
| 372 | 9 | IPN 200 | Vz | min | 0,390 | (460) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr Y-.S.S (1,5\*0,7\*proměnné užitné+1,5\*0,5\*Sníh UD) |
| 385 | 9 | IPN 200 |  | min | 0,390 | (492) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Vítr Y-.S.S (1,5\*0,7\*proměnné užitné+1,5\*0,5\*Sníh UD) |
| 372 | 9 | IPN 200 |  | max | 0 | (459) | [vlastní tíha+opláštění+podlahy] 1,5\*Vítr X-.Ss.P |
| 385 | 9 | IPN 200 |  | max | 0 | (491) | [vlastní tíha+opláštění+podlahy] 1,5\*Vítr X+.Ss.P |
| 506 | 26 | HE 220 B | My | min | 0 | (381) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*proměnné užitné (1,5\*0,5\*Sníh UD+1,5\*0,6\*Vítr Y+.S.P) |
| 423 | 9 | IPN 200 |  | max | 3,000 | (1459) | [1,35\*0,85\*vlastní tíha+1,35\*0,85\*opláštění+1,35\*0,85\*podlahy] 1,5\*Sníh UD (1,5\*0,6\*Vítr X-.Sp.S) |

#### Posudek oceli

Jednotkový posudek konstrukčního prvku (Eurocode-CZ)

Kritické Min, Max.

### Jednotkový posudek konstrukčního prvku (Eurocode-CZ) [Lineární,(Vše MSÚ (a, b)) Kritická, Části]

|  | **Konstr.**  **prv.** | **Typ** | **Materiál** | **Průřez** | **Max. Poz.**  **[m]** | **Výpočet** | **Max.** |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 (381–383) | (Nosník) | S 235 | HE 220 B | 6,000 | N-M-V | 0,377 |  |
| 2 | 6 (1316–1034) | (Žebro) | S 355 | HE 220 B | 0 | N-M-Vzp | 0,070 |  |
| 3 | 7 (1001–1316) | (Žebro) | S 355 | HE 220 B | 0 | N-M-V | 0,330 |  |
| 4 | 9 (1034–1000) | (Žebro) | S 355 | HE 220 B | 15,400 | N-M-Vzp | **1,015** |  |
| 5 | 10 (1011–1012) | (Žebro) | S 355 | HE 220 B | 0 | Vw-M-N | **1,551** |  |
| 6 | 12 (1031–658) | (Žebro) | S 235 | IPN 450 | 1,020 | N-M-V | 0,055 |  |
| 7 | 13 (647–1031) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,046 |  |
| 8 | 14 (764–769) | (Žebro) | S 235 | IPN 300 | 0,375 | N-M-Klop. | 0,039 |  |
| 9 | 15 (771–786) | (Žebro) | S 235 | IPN 260 | 0,619 | N-M-V | 0,078 |  |
| 10 | 16 (784–783) | (Žebro) | S 235 | IPN 260 | 1,500 | N-M-V | 0,015 |  |
| 11 | 17 (696–735) | (Žebro) | S 235 | IPN 280 | 0 | N-M-Klop. | 0,113 |  |
| 12 | 18 (525–726) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,105 |  |
| 13 | 26 (988–969) | (Žebro) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,249 |  |
| 14 | 31 (948–969) | (Žebro) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,120 |  |
| 15 | 37 (948–927) | (Žebro) | S 235 | IPN 220 | 2,000 | N-M-Klop. | 0,129 |  |
| 16 | 40 (937–958) | (Žebro) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,132 |  |
| 17 | 43 (1000–1012) | (Žebro) | S 355 | HE 220 B | 0 | N-M-Klop. | **1,616** |  |
| 18 | 44 (1001–1011) | (Žebro) | S 355 | HE 220 B | 18,390 | Vw-M-N | **1,750** |  |
| 19 | 45 (991–617) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,095 |  |
| 20 | 46 (509–991) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,122 |  |
| 21 | 49 (958–969) | (Žebro) | S 235 | IPN 280 | 5,650 | N-M-Klop. | 0,194 |  |
| 22 | 50 (937–948) | (Žebro) | S 235 | IPN 280 | 5,650 | N-M-V | 0,137 |  |
| 23 | 51 (916–927) | (Žebro) | S 235 | IPN 280 | 5,650 | N-M-Klop. | 0,178 |  |
| 24 | 52 (780–778) | (Žebro) | S 235 | IPN 260 | 0,636 | N-M-Klop. | 0,038 |  |
| 25 | 53 (778–775) | (Žebro) | S 235 | IPN 260 | 0,085 | N-M-Klop. | 0,030 |  |
| 26 | 54 (779–777) | (Žebro) | S 235 | IPN 340 | 1,415 | N-M-V | 0,061 |  |
| 27 | 55 (773–777) | (Žebro) | S 235 | IPN 340 | 0 | N-M-V | 0,013 |  |
| 28 | 56 (776–780) | (Žebro) | S 235 | IPN 260 | 1,498 | N-M-V | 0,029 |  |
| 29 | 57 (774–779) | (Žebro) | S 235 | IPN 340 | 2,310 | N-M-V | 0,041 |  |
| 30 | 58 (768–766) | (Žebro) | S 235 | IPN 300 | 0,765 | N-M-V | 0,036 |  |
| 31 | 59 (766–764) | (Žebro) | S 235 | IPN 300 | 1,750 | N-M-V | 0,024 |  |
| 32 | 60 (771–765) | (Žebro) | S 235 | IPN 340 | 1,375 | N-M-V | 0,086 |  |
| 33 | 61 (764–771) | (Žebro) | S 235 | IPN 340 | 1,672 | N-M-V | 0,032 |  |
| 34 | 62 (786–763) | (Žebro) | S 235 | IPN 200 | 1,466 | N-M-V | 0,051 |  |
| 35 | 63 (762–786) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,102 |  |
| 36 | 64 (786–770) | (Žebro) | S 235 | IPN 260 | 0 | N-M-Klop. | 0,020 |  |
| 37 | 65 (785–760) | (Žebro) | S 235 | IPN 280 | 1,510 | N-M-V | 0,061 |  |
| 38 | 66 (759–785) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,114 |  |
| 39 | 67 (785–784) | (Žebro) | S 235 | IPN 260 | 0 | N-M-V | 0,003 |  |
| 40 | 68 (770–785) | (Žebro) | S 235 | IPN 260 | 1,500 | N-M-V | 0,004 |  |
| 41 | 69 (784–758) | (Žebro) | S 235 | IPN 200 | 1,765 | N-M-V | 0,048 |  |
| 42 | 70 (757–784) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,088 |  |
| 43 | 71 (783–756) | (Žebro) | S 235 | IPN 200 | 1,477 | N-M-V | 0,052 |  |
| 44 | 72 (755–783) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,084 |  |
| 45 | 73 (783–772) | (Žebro) | S 235 | IPN 260 | 0,915 | N-M-Vzp | 0,065 |  |
| 46 | 74 (772–754) | (Žebro) | S 235 | IPN 360 | 1,682 | N-M-Vzp | 0,076 |  |
| 47 | 75 (725–772) | (Žebro) | S 235 | IPN 360 | 2,612 | N-M-Vzp | 0,032 |  |
| 48 | 76 (747–774) | (Žebro) | S 235 | IPN 280 | 0,385 | N-M-V | 0,068 |  |
| 49 | 77 (774–745) | (Žebro) | S 235 | IPN 280 | 0 | N-M-Klop. | 0,068 |  |
| 50 | 78 (776–747) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,098 |  |
| 51 | 79 (582–776) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,229 |  |
| 52 | 80 (745–768) | (Žebro) | S 235 | IPN 380 | 0,654 | N-M-Vzp | 0,094 |  |
| 53 | 81 (768–744) | (Žebro) | S 235 | IPN 380 | 2,677 | N-M-V | 0,111 |  |
| 54 | 82 (761–770) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,098 |  |
| 55 | 83 (770–576) | (Žebro) | S 235 | IPN 200 | 3,020 | N-M-V | 0,813 |  |
| 56 | 84 (782–778) | (Žebro) | S 235 | IPN 260 | 0 | N-M-V | 0,046 |  |
| 57 | 85 (777–782) | (Žebro) | S 235 | IPN 260 | 0,282 | N-M-V | 0,050 |  |
| 58 | 86 (781–782) | (Žebro) | S 235 | IPN 260 | 1,492 | N-M-V | 0,032 |  |
| 59 | 87 (781–780) | (Žebro) | S 235 | IPN 260 | 0 | N-M-V | 0,056 |  |
| 60 | 88 (779–781) | (Žebro) | S 235 | IPN 260 | 0,565 | N-M-V | 0,059 |  |
| 61 | 89 (766–767) | (Žebro) | S 235 | IPN 300 | 2,792 | N-M-V | 0,094 |  |
| 62 | 90 (749–753) | (Žebro) | S 235 | IPN 360 | 4,915 | N-M-Vzp | 0,045 |  |
| 63 | 91 (751–752) | (Žebro) | S 235 | IPN 360 | 0 | N-M-V | 0,050 |  |
| 64 | 92 (751–749) | (Žebro) | S 235 | IPN 340 | 0,660 | N-M-V | 0,077 |  |
| 65 | 93 (570–751) | (Žebro) | S 235 | IPN 340 | 0 | N-M-V | 0,242 |  |
| 66 | 94 (750–720) | (Žebro) | S 235 | IPN 400 | 0,880 | N-M-V | 0,069 |  |
| 67 | 95 (718–750) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,071 |  |
| 68 | 96 (749–725) | (Žebro) | S 235 | IPN 340 | 0 | N-M-Klop. | 0,075 |  |
| 69 | 97 (748–722) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,066 |  |
| 70 | 98 (720–748) | (Žebro) | S 235 | IPN 400 | 0 | N-M-Klop. | 0,070 |  |
| 71 | 99 (750–751) | (Žebro) | S 235 | IPN 360 | 6,000 | N-M-Klop. | 0,054 |  |
| 72 | 100 (748–749) | (Žebro) | S 235 | IPN 360 | 6,000 | N-M-Klop. | 0,036 |  |
| 73 | 101 (746–674) | (Žebro) | S 235 | IPN 450 | 0,430 | N-M-V | 0,098 |  |
| 74 | 102 (672–746) | (Žebro) | S 235 | IPN 450 | 0,580 | N-M-V | 0,062 |  |
| 75 | 103 (746–747) | (Žebro) | S 235 | IPN 340 | 0,196 | N-M-V | 0,034 |  |
| 76 | 104 (743–745) | (Žebro) | S 235 | IPN 340 | 1,227 | N-M-V | 0,091 |  |
| 77 | 105 (745–741) | (Žebro) | S 235 | IPN 280 | 0,520 | N-M-V | 0,118 |  |
| 78 | 106 (669–743) | (Žebro) | S 235 | IPN 450 | 0,230 | N-M-Klop. | 0,078 |  |
| 79 | 107 (661–743) | (Žebro) | S 235 | IPN 450 | 0,710 | N-M-V | 0,073 |  |
| 80 | 108 (525–742) | (Žebro) | S 235 | IPN 160 | 0 | N-M-V | 0,094 |  |
| 81 | 109 (723–724) | (Žebro) | S 235 | IPN 380 | 5,053 | N-M-Vzp | 0,051 |  |
| 82 | 110 (734–739) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,078 |  |
| 83 | 111 (739–733) | (Žebro) | S 235 | IPN 280 | 0 | N-M-Vzp | 0,030 |  |
| 84 | 112 (738–739) | (Žebro) | S 235 | IPN 280 | 0,459 | N-M-V | 0,075 |  |
| 85 | 113 (731–738) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,273 |  |
| 86 | 114 (738–730) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,066 |  |
| 87 | 115 (727–737) | (Žebro) | S 235 | IPN 380 | 0,396 | N-M-Vzp | 0,028 |  |
| 88 | 116 (737–638) | (Žebro) | S 235 | IPN 380 | 0,541 | N-M-Vzp | 0,026 |  |
| 89 | 117 (736–737) | (Žebro) | S 235 | IPN 200 | 0,237 | N-M-V | 0,016 |  |
| 90 | 118 (729–736) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,044 |  |
| 91 | 119 (736–728) | (Žebro) | S 235 | IPN 380 | 0,284 | N-M-V | 0,021 |  |
| 92 | 120 (525–735) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,063 |  |
| 93 | 121 (735–511) | (Žebro) | S 235 | IPN 450 | 5,450 | N-M-V | 0,149 |  |
| 94 | 122 (513–732) | (Žebro) | S 235 | IPN 380 | 1,249 | N-M-Vzp | 0,043 |  |
| 95 | 123 (725–717) | (Žebro) | S 235 | IPN 340 | 0,670 | N-M-Klop. | 0,126 |  |
| 96 | 124 (722–725) | (Žebro) | S 235 | IPN 280 | 0 | N-M-Vzp | 0,067 |  |
| 97 | 125 (722–716) | (Žebro) | S 235 | IPN 400 | 0,670 | N-M-Klop. | 0,108 |  |
| 98 | 126 (721–722) | (Žebro) | S 235 | IPN 400 | 4,621 | N-M-Vzp | 0,042 |  |
| 99 | 127 (719–720) | (Žebro) | S 235 | IPN 400 | 2,446 | N-M-Vzp | 0,041 |  |
| 100 | 128 (568–718) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,190 |  |
| 101 | 129 (616–718) | (Žebro) | S 235 | IPN 300 | 2,934 | N-M-Vzp | 0,054 |  |
| 102 | 130 (673–675) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,059 |  |
| 103 | 131 (671–675) | (Žebro) | S 235 | IPN 200 | 0 | N-M-V | 0,020 |  |
| 104 | 132 (674–580) | (Žebro) | S 235 | IPN 450 | 0,530 | N-M-V | 0,240 |  |
| 105 | 133 (670–673) | (Žebro) | S 235 | IPN 200 | 0,505 | N-M-Vzp | 0,072 |  |
| 106 | 134 (669–672) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,077 |  |
| 107 | 135 (675–674) | (Žebro) | S 235 | IPN 180 | 1,775 | N-M-V | 0,049 |  |
| 108 | 136 (673–672) | (Žebro) | S 235 | IPN 180 | 1,950 | N-M-V | 0,048 |  |
| 109 | 137 (579–671) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,606 |  |
| 110 | 138 (668–670) | (Žebro) | S 235 | IPN 280 | 3,092 | N-M-V | 0,066 |  |
| 111 | 139 (670–669) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,056 |  |
| 112 | 144 (666–667) | (Žebro) | S 235 | IPN 160 | 0,378 | N-M-Vzp | 0,016 |  |
| 113 | 145 (663–665) | (Žebro) | S 235 | IPN 300 | 1,260 | N-M-V | 0,037 |  |
| 114 | 146 (665–661) | (Žebro) | S 235 | IPN 300 | 1,547 | N-M-Vzp | 0,075 |  |
| 115 | 147 (662–664) | (Žebro) | S 235 | IPN 300 | 1,260 | N-M-V | 0,038 |  |
| 116 | 148 (664–660) | (Žebro) | S 235 | IPN 300 | 1,547 | N-M-Vzp | 0,074 |  |
| 117 | 149 (649–663) | (Žebro) | S 235 | IPN 300 | 0,168 | N-M-Vzp | 0,052 |  |
| 118 | 150 (646–662) | (Žebro) | S 235 | IPN 300 | 0 | N-M-Vzp | 0,047 |  |
| 119 | 151 (660–661) | (Žebro) | S 235 | IPN 450 | 0,520 | N-M-V | 0,066 |  |
| 120 | 152 (525–660) | (Žebro) | S 235 | IPN 450 | 1,640 | N-M-V | 0,053 |  |
| 121 | 153 (659–658) | (Žebro) | S 235 | IPN 300 | 5,580 | N-M-V | 0,074 |  |
| 122 | 154 (658–589) | (Žebro) | S 235 | IPN 450 | 0,440 | N-M-V | 0,056 |  |
| 123 | 155 (650–504) | (Žebro) | S 235 | IPN 450 | 1,070 | N-M-V | 0,163 |  |
| 124 | 156 (655–657) | (Žebro) | S 235 | IPN 200 | 0 | N-M-Klop. | 0,013 |  |
| 125 | 157 (653–657) | (Žebro) | S 235 | IPN 200 | 0,505 | N-M-Klop. | 0,013 |  |
| 126 | 160 (657–656) | (Žebro) | S 235 | IPN 200 | 0,387 | N-M-Vzp | 0,042 |  |
| 127 | 161 (649–648) | (Žebro) | S 235 | IPN 300 | 0 | N-M-Vzp | 0,062 |  |
| 128 | 162 (646–645) | (Žebro) | S 235 | IPN 300 | 4,950 | N-M-V | 0,064 |  |
| 129 | 163 (655–506) | (Žebro) | S 235 | IPN 280 | 1,160 | N-M-V | 0,099 |  |
| 130 | 164 (645–648) | (Žebro) | S 235 | IPN 280 | 0,260 | N-M-V | 0,008 |  |
| 131 | 165 (589–650) | (Žebro) | S 235 | IPN 450 | 0,330 | N-M-V | 0,040 |  |
| 132 | 166 (653–651) | (Žebro) | S 235 | IPN 300 | 0,526 | N-M-Vzp | 0,035 |  |
| 133 | 167 (652–653) | (Žebro) | S 235 | IPN 300 | 0,289 | N-M-V | 0,039 |  |
| 134 | 168 (651–650) | (Žebro) | S 235 | IPN 300 | 0,900 | N-M-Vzp | 0,043 |  |
| 135 | 169 (644–647) | (Žebro) | S 235 | IPN 450 | 0,520 | N-M-V | 0,037 |  |
| 136 | 170 (648–647) | (Žebro) | S 235 | IPN 300 | 0,653 | N-M-Vzp | 0,102 |  |
| 137 | 171 (585–644) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,073 |  |
| 138 | 172 (645–644) | (Žebro) | S 235 | IPN 300 | 0,525 | N-M-Vzp | 0,090 |  |
| 139 | 173 (639–643) | (Žebro) | S 235 | IPN 280 | 0,966 | N-M-V | 0,028 |  |
| 140 | 174 (643–634) | (Žebro) | S 235 | IPN 280 | 0,442 | N-M-Vzp | 0,051 |  |
| 141 | 175 (637–641) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,023 |  |
| 142 | 176 (641–632) | (Žebro) | S 235 | IPN 280 | 0,884 | N-M-V | 0,030 |  |
| 143 | 177 (636–640) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,083 |  |
| 144 | 178 (640–507) | (Žebro) | S 235 | I 800 | 0,884 | N-M-V | 0,113 |  |
| 145 | 179 (643–642) | (Žebro) | S 235 | IPN 180 | 1,249 | N-M-Vzp | 0,024 |  |
| 146 | 180 (640–641) | (Žebro) | S 235 | IPN 180 | 0,420 | N-M-V | 0,064 |  |
| 147 | 181 (635–639) | (Žebro) | S 235 | IPN 280 | 0,455 | N-M-Vzp | 0,008 |  |
| 148 | 182 (633–637) | (Žebro) | S 235 | IPN 280 | 0,910 | N-M-V | 0,023 |  |
| 149 | 183 (629–636) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,122 |  |
| 150 | 184 (639–638) | (Žebro) | S 235 | IPN 180 | 1,410 | N-M-V | 0,043 |  |
| 151 | 185 (636–637) | (Žebro) | S 235 | IPN 180 | 0 | N-M-V | 0,054 |  |
| 152 | 186 (634–632) | (Žebro) | S 235 | IPN 450 | 3,350 | N-M-V | 0,076 |  |
| 153 | 187 (511–634) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,149 |  |
| 154 | 188 (635–631) | (Žebro) | S 235 | IPN 300 | 0 | N-M-Vzp | 0,020 |  |
| 155 | 189 (630–635) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,091 |  |
| 156 | 190 (632–507) | (Žebro) | S 235 | IPN 450 | 1,240 | N-M-V | 0,291 |  |
| 157 | 191 (633–630) | (Žebro) | S 235 | IPN 300 | 1,760 | N-M-V | 0,091 |  |
| 158 | 192 (629–633) | (Žebro) | S 235 | IPN 300 | 0,620 | N-M-Vzp | 0,044 |  |
| 159 | 193 (624–627) | (Žebro) | S 235 | IPN 500 | 0,930 | N-M-V | 0,042 |  |
| 160 | 194 (627–521) | (Žebro) | S 235 | IPN 500 | 0,290 | N-M-V | 0,072 |  |
| 161 | 195 (621–624) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,034 |  |
| 162 | 196 (618–621) | (Žebro) | S 235 | IPN 500 | 0,930 | N-M-V | 0,034 |  |
| 163 | 197 (517–618) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,052 |  |
| 164 | 198 (521–630) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,072 |  |
| 165 | 199 (626–629) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,134 |  |
| 166 | 200 (623–626) | (Žebro) | S 235 | I 800 | 0,930 | N-M-V | 0,134 |  |
| 167 | 201 (627–628) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,090 |  |
| 168 | 202 (626–627) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,090 |  |
| 169 | 203 (620–623) | (Žebro) | S 235 | I 800 | 0,920 | N-M-V | 0,117 |  |
| 170 | 204 (624–625) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,062 |  |
| 171 | 205 (623–624) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,063 |  |
| 172 | 206 (617–620) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,089 |  |
| 173 | 207 (621–622) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,044 |  |
| 174 | 208 (620–621) | (Žebro) | S 235 | IPN 300 | 0,500 | N-M-V | 0,050 |  |
| 175 | 209 (618–619) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,031 |  |
| 176 | 210 (617–618) | (Žebro) | S 235 | IPN 300 | 0,290 | N-M-V | 0,067 |  |
| 177 | 211 (614–611) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,062 |  |
| 178 | 212 (566–614) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,080 |  |
| 179 | 213 (611–519) | (Žebro) | S 235 | IPN 500 | 1,040 | N-M-V | 0,045 |  |
| 180 | 214 (607–604) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,021 |  |
| 181 | 215 (519–607) | (Žebro) | S 235 | IPN 500 | 0 | N-M-V | 0,037 |  |
| 182 | 216 (523–566) | (Nosník) | S 235 | IPN 500 | 0 | N-M-V | 0,034 |  |
| 183 | 217 (604–517) | (Žebro) | S 235 | IPN 500 | 1,035 | N-M-V | 0,051 |  |
| 184 | 218 (615–612) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,100 |  |
| 185 | 219 (503–615) | (Žebro) | S 235 | IPN 450 | 0 | N-M-V | 0,214 |  |
| 186 | 220 (612–609) | (Žebro) | S 235 | IPN 450 | 1,040 | N-M-Klop. | 0,075 |  |
| 187 | 221 (614–616) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,048 |  |
| 188 | 222 (615–614) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,028 |  |
| 189 | 223 (611–613) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,046 |  |
| 190 | 224 (612–611) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,046 |  |
| 191 | 225 (548–609) | (Žebro) | S 235 | IPN 450 | 0 | N-M-Klop. | 0,075 |  |
| 192 | 226 (519–610) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,080 |  |
| 193 | 227 (609–519) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,084 |  |
| 194 | 228 (606–603) | (Žebro) | S 235 | IPN 450 | 1,030 | N-M-V | 0,058 |  |
| 195 | 229 (548–606) | (Žebro) | S 235 | IPN 450 | 0 | N-M-Klop. | 0,075 |  |
| 196 | 230 (607–608) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,051 |  |
| 197 | 231 (606–607) | (Žebro) | S 235 | IPN 300 | 3,000 | N-M-V | 0,051 |  |
| 198 | 232 (603–509) | (Žebro) | S 235 | IPN 450 | 1,035 | N-M-Klop. | 0,247 |  |
| 199 | 233 (604–605) | (Žebro) | S 235 | IPN 300 | 0 | N-M-Vzp | 0,033 |  |
| 200 | 234 (603–604) | (Žebro) | S 235 | IPN 300 | 0,520 | N-M-V | 0,068 |  |
| 201 | 235 (517–513) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,052 |  |
| 202 | 236 (509–517) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,294 |  |
| 203 | 237 (600–602) | (Žebro) | S 235 | IPN 380 | 1,660 | N-M-V | 0,049 |  |
| 204 | 238 (602–590) | (Žebro) | S 235 | IPN 380 | 0,530 | N-M-Vzp | 0,055 |  |
| 205 | 239 (599–601) | (Žebro) | S 235 | IPN 380 | 1,660 | N-M-V | 0,060 |  |
| 206 | 240 (601–591) | (Žebro) | S 235 | IPN 380 | 0,530 | N-M-Vzp | 0,068 |  |
| 207 | 241 (601–602) | (Žebro) | S 235 | IPN 160 | 0,370 | N-M-Vzp | 0,026 |  |
| 208 | 242 (586–600) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,048 |  |
| 209 | 243 (599–600) | (Žebro) | S 235 | IPN 160 | 0,370 | N-M-Vzp | 0,042 |  |
| 210 | 244 (587–599) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,046 |  |
| 211 | 245 (596–598) | (Žebro) | S 235 | IPN 180 | 0 | N-M-V | 0,031 |  |
| 212 | 246 (595–598) | (Žebro) | S 235 | IPN 180 | 0,558 | N-M-Vzp | 0,045 |  |
| 213 | 247 (594–597) | (Žebro) | S 235 | IPN 180 | 0 | N-M-Vzp | 0,046 |  |
| 214 | 248 (593–597) | (Žebro) | S 235 | IPN 180 | 0,308 | N-M-Vzp | 0,064 |  |
| 215 | 249 (597–598) | (Žebro) | S 235 | IPN 180 | 2,282 | N-M-V | 0,033 |  |
| 216 | 250 (594–596) | (Žebro) | S 235 | IPN 300 | 2,880 | N-M-V | 0,049 |  |
| 217 | 251 (596–539) | (Žebro) | S 235 | IPN 300 | 1,960 | N-M-Klop. | 0,349 |  |
| 218 | 252 (593–595) | (Žebro) | S 235 | IPN 400 | 2,342 | N-M-V | 0,070 |  |
| 219 | 253 (592–595) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,067 |  |
| 220 | 254 (540–594) | (Žebro) | S 235 | IPN 300 | 0 | N-M-Klop. | 0,113 |  |
| 221 | 255 (588–593) | (Žebro) | S 235 | IPN 400 | 0 | N-M-Klop. | 0,050 |  |
| 222 | 256 (592–535) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,055 |  |
| 223 | 257 (591–531) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,057 |  |
| 224 | 258 (590–527) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,047 |  |
| 225 | 259 (591–592) | (Žebro) | S 235 | IPN 180 | 1,130 | N-M-Vzp | 0,041 |  |
| 226 | 260 (589–590) | (Žebro) | S 235 | IPN 180 | 0,319 | N-M-V | 0,064 |  |
| 227 | 261 (536–588) | (Žebro) | S 235 | IPN 400 | 0 | N-M-Klop. | 0,109 |  |
| 228 | 262 (587–588) | (Žebro) | S 235 | IPN 180 | 1,048 | N-M-Vzp | 0,068 |  |
| 229 | 263 (532–587) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,097 |  |
| 230 | 264 (528–586) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,086 |  |
| 231 | 265 (585–586) | (Žebro) | S 235 | IPN 180 | 0,241 | N-M-V | 0,077 |  |
| 232 | 266 (507–585) | (Žebro) | S 235 | IPN 450 | 0 | N-M-Klop. | 0,185 |  |
| 233 | 267 (584–583) | (Žebro) | S 235 | IPN 340 | 0 | N-M-V | 0,608 |  |
| 234 | 268 (581–582) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,353 |  |
| 235 | 269 (506–579) | (Žebro) | S 235 | IPN 280 | 3,000 | N-M-V | 0,608 |  |
| 236 | 276 (572–571) | (Žebro) | S 235 | IPN 340 | 0 | N-M-V | 0,538 |  |
| 237 | 277 (570–572) | (Žebro) | S 235 | IPN 340 | 3,000 | N-M-V | 0,536 |  |
| 238 | 278 (569–570) | (Žebro) | S 235 | IPN 340 | 0 | N-M-V | 0,431 |  |
| 239 | 279 (503–566) | (Žebro) | S 235 | IPN 300 | 0 | N-M-V | 0,045 |  |
| 240 | 284 (515–563) | (Žebro) | S 235 | IPN 260 | 2,500 | N-M-V | 0,551 |  |
| 241 | 285 (554–562) | (Žebro) | S 235 | IPN 380 | 2,520 | N-M-V | 0,887 |  |
| 242 | 286 (516–554) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,061 |  |
| 243 | 289 (544–560) | (Žebro) | S 235 | IPN 260 | 1,700 | N-M-V | 0,574 |  |
| 244 | 292 (542–558) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,189 |  |
| 245 | 293 (538–558) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,275 |  |
| 246 | 294 (558–559) | (Žebro) | S 235 | IPN 160 | 0 | N-M-V | 0,046 |  |
| 247 | 295 (530–557) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,080 |  |
| 248 | 296 (557–528) | (Žebro) | S 235 | IPN 380 | 2,592 | N-M-V | 0,091 |  |
| 249 | 297 (556–557) | (Žebro) | S 235 | IPN 400 | 0 | N-M-Vzp | 0,031 |  |
| 250 | 298 (534–556) | (Žebro) | S 235 | IPN 380 | 0 | N-M-V | 0,084 |  |
| 251 | 299 (556–532) | (Žebro) | S 235 | IPN 380 | 6,220 | N-M-Klop. | 0,096 |  |
| 252 | 300 (538–555) | (Žebro) | S 235 | IPN 400 | 0 | N-M-V | 0,101 |  |
| 253 | 301 (555–536) | (Žebro) | S 235 | IPN 400 | 6,220 | N-M-V | 0,108 |  |
| 254 | 302 (542–552) | (Žebro) | S 235 | IPN 380 | 0 | N-M-Klop. | 0,057 |  |
| 255 | 303 (552–540) | (Žebro) | S 235 | IPN 380 | 6,220 | N-M-Klop. | 0,066 |  |
| 256 | 304 (552–554) | (Žebro) | S 235 | IPN 160 | 0 | N-M-V | 0,038 |  |
| 257 | 305 (549–548) | (Žebro) | S 235 | IPN 180 | 1,712 | N-M-V | 0,042 |  |
| 258 | 306 (551–550) | (Žebro) | S 235 | IPN 180 | 0,538 | N-M-Vzp | 0,059 |  |
| 259 | 307 (547–551) | (Žebro) | S 235 | IPN 180 | 1,131 | N-M-Vzp | 0,056 |  |
| 260 | 308 (551–538) | (Žebro) | S 235 | IPN 380 | 2,820 | N-M-Klop. | 0,116 |  |
| 261 | 309 (537–551) | (Žebro) | S 235 | IPN 380 | 2,358 | N-M-V | 0,082 |  |
| 262 | 310 (550–534) | (Žebro) | S 235 | IPN 340 | 2,820 | N-M-Klop. | 0,111 |  |
| 263 | 311 (533–550) | (Žebro) | S 235 | IPN 340 | 2,077 | N-M-Vzp | 0,082 |  |
| 264 | 312 (549–530) | (Žebro) | S 235 | IPN 340 | 2,820 | N-M-Klop. | 0,104 |  |
| 265 | 313 (529–549) | (Žebro) | S 235 | IPN 340 | 2,358 | N-M-V | 0,074 |  |
| 266 | 314 (543–547) | (Žebro) | S 235 | IPN 280 | 0,991 | N-M-V | 0,051 |  |
| 267 | 315 (547–542) | (Žebro) | S 235 | IPN 280 | 2,820 | N-M-V | 0,114 |  |
| 268 | 316 (546–544) | (Žebro) | S 235 | IPN 200 | 0,327 | N-M-V | 0,006 |  |
| 269 | 317 (543–546) | (Žebro) | S 235 | IPN 200 | 0 | N-M-Vzp | 0,009 |  |
| 270 | 318 (542–545) | (Žebro) | S 235 | I 800 | 0,695 | N-M-V | 0,151 |  |
| 271 | 319 (545–516) | (Žebro) | S 235 | I 800 | 0,655 | N-M-V | 0,187 |  |
| 272 | 320 (546–545) | (Žebro) | S 235 | IPN 200 | 4,200 | N-M-Klop. | 0,039 |  |
| 273 | 321 (541–543) | (Žebro) | S 235 | IPN 280 | 0 | N-M-V | 0,411 |  |
| 274 | 322 (536–540) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,261 |  |
| 275 | 323 (540–515) | (Žebro) | S 235 | I 800 | 1,350 | N-M-V | 0,179 |  |
| 276 | 324 (534–538) | (Žebro) | S 235 | I 800 | 1,077 | N-M-Vzp | 0,289 |  |
| 277 | 325 (532–536) | (Žebro) | S 235 | I 800 | 1,346 | N-M-Vzp | 0,266 |  |
| 278 | 326 (530–534) | (Žebro) | S 235 | I 800 | 0,740 | N-M-V | 0,248 |  |
| 279 | 327 (528–532) | (Žebro) | S 235 | I 800 | 0,740 | N-M-V | 0,222 |  |
| 280 | 328 (509–530) | (Žebro) | S 235 | I 800 | 2,030 | N-M-V | 0,182 |  |
| 281 | 329 (507–528) | (Žebro) | S 235 | I 800 | 0 | N-M-V | 0,180 |  |
| 282 | 447 (499–500) | (Nosník) | S 235 | IPN 200 | 0 | N-M-V | 0,280 |  |
| 283 | 448 (498–499) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,941 |  |
| 284 | 449 (497–498) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,953 |  |
| 285 | 450 (496–497) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,957 |  |
| 286 | 451 (495–496) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,981 |  |
| 287 | 452 (494–495) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,941 |  |
| 288 | 453 (493–494) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,042 |  |
| 289 | 454 (491–492) | (Nosník) | S 235 | IPN 200 | 0 | N-M-V | 0,935 |  |
| 290 | 455 (490–491) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,077** |  |
| 291 | 456 (489–490) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,986** |  |
| 292 | 457 (488–489) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,113** |  |
| 293 | 458 (487–488) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,988** |  |
| 294 | 459 (486–487) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,075** |  |
| 295 | 460 (485–486) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,090 |  |
| 296 | 461 (483–484) | (Nosník) | S 235 | IPN 200 | 0,390 | N-M-Klop. | 0,875 |  |
| 297 | 462 (482–483) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,785** |  |
| 298 | 463 (481–482) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **3,279** |  |
| 299 | 464 (480–481) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,936** |  |
| 300 | 465 (479–480) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **3,284** |  |
| 301 | 466 (478–479) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,787** |  |
| 302 | 467 (477–478) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,086 |  |
| 303 | 468 (475–476) | (Nosník) | S 235 | U 200 | 0,390 | Vz (\*) | **206,573 (\*)** |  |
| 304 | 469 (474–475) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,331 (\*)** |  |
| 305 | 470 (473–474) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,550 (\*)** |  |
| 306 | 471 (472–473) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,530 (\*)** |  |
| 307 | 472 (471–472) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,499 (\*)** |  |
| 308 | 473 (470–471) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,217 (\*)** |  |
| 309 | 474 (469–470) | (Nosník) | S 235 | U 200 | 0 | N-M-V (\*) | 0,164 (\*) |  |
| 310 | 509 (467–468) | (Nosník) | S 235 | IPN 200 | 0 | N-M-V | 0,280 |  |
| 311 | 510 (466–467) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,941 |  |
| 312 | 511 (465–466) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,946 |  |
| 313 | 512 (464–465) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,942 |  |
| 314 | 513 (463–464) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,973 |  |
| 315 | 514 (462–463) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | 0,945 |  |
| 316 | 515 (461–462) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,042 |  |
| 317 | 516 (459–460) | (Nosník) | S 235 | IPN 200 | 0 | N-M-V | 0,935 |  |
| 318 | 517 (458–459) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,077** |  |
| 319 | 518 (457–458) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,991** |  |
| 320 | 519 (456–457) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,132** |  |
| 321 | 520 (455–456) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,014** |  |
| 322 | 521 (454–455) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,075** |  |
| 323 | 522 (453–454) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,090 |  |
| 324 | 523 (451–452) | (Nosník) | S 235 | IPN 200 | 0,390 | N-M-Klop. | 0,875 |  |
| 325 | 524 (450–451) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,786** |  |
| 326 | 525 (449–450) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **3,283** |  |
| 327 | 526 (448–449) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **2,947** |  |
| 328 | 527 (447–448) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **3,295** |  |
| 329 | 528 (446–447) | (Nosník) | S 235 | IPN 200 | 3,000 | N-M-Klop. | **1,794** |  |
| 330 | 529 (444–446) | (Nosník) | S 235 | IPN 200 | 0,675 | N-M-Klop. | 0,085 |  |
| 331 | 533 (437–443) | (Nosník) | S 235 | U 200 | 0,390 | Vz (\*) | **206,635 (\*)** |  |
| 332 | 534 (442–443) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,320 (\*)** |  |
| 333 | 535 (441–442) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,551 (\*)** |  |
| 334 | 536 (440–441) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,547 (\*)** |  |
| 335 | 537 (439–440) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,502 (\*)** |  |
| 336 | 538 (438–439) | (Nosník) | S 235 | U 200 | 3,000 | N-M-Vzp (\*) | **1,291 (\*)** |  |
| 337 | 539 (436–438) | (Nosník) | S 235 | U 200 | 0 | N-M-V (\*) | 0,174 (\*) |  |
| 338 | 547 (424–435) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,298 (\*) |  |
| 339 | 548 (434–435) | (Nosník) | S 235 | U 180 | 1,250 | N-M-V (\*) | 0,232 (\*) |  |
| 340 | 549 (433–434) | (Nosník) | S 235 | U 180 | 1,837 | N-M-V (\*) | 0,329 (\*) |  |
| 341 | 550 (432–433) | (Nosník) | S 235 | U 180 | 1,850 | N-M-V (\*) | 0,329 (\*) |  |
| 342 | 551 (431–432) | (Nosník) | S 235 | U 180 | 1,250 | N-M-V (\*) | 0,225 (\*) |  |
| 343 | 552 (412–431) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,290 (\*) |  |
| 344 | 553 (415–430) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,217 (\*) |  |
| 345 | 554 (429–430) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,135 (\*) |  |
| 346 | 555 (428–429) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,282 (\*) |  |
| 347 | 556 (427–428) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,281 (\*) |  |
| 348 | 557 (426–427) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,132 (\*) |  |
| 349 | 558 (402–426) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,212 (\*) |  |
| 350 | 559 (423–425) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,245 (\*) |  |
| 351 | 560 (422–425) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,236 (\*) |  |
| 352 | 561 (423–424) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,081 |  |
| 353 | 562 (421–422) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,211 (\*) |  |
| 354 | 563 (420–421) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,210 (\*) |  |
| 355 | 564 (419–420) | (Nosník) | S 235 | U 180 | 1,350 | N-M-V (\*) | 0,139 (\*) |  |
| 356 | 565 (418–419) | (Nosník) | S 235 | U 180 | 1,313 | N-M-V (\*) | 0,186 (\*) |  |
| 357 | 566 (416–417) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,217 (\*) |  |
| 358 | 567 (414–416) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,220 (\*) |  |
| 359 | 568 (414–415) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,045 |  |
| 360 | 569 (411–413) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,245 (\*) |  |
| 361 | 570 (410–413) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,237 (\*) |  |
| 362 | 571 (411–412) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,075 |  |
| 363 | 572 (409–410) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,211 (\*) |  |
| 364 | 573 (408–409) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,210 (\*) |  |
| 365 | 574 (407–408) | (Nosník) | S 235 | U 180 | 1,518 | N-M-V (\*) | 0,181 (\*) |  |
| 366 | 575 (406–407) | (Nosník) | S 235 | U 180 | 1,313 | N-M-V (\*) | 0,239 (\*) |  |
| 367 | 576 (405–406) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,295 (\*) |  |
| 368 | 577 (404–405) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,298 (\*) |  |
| 369 | 578 (403–404) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,271 (\*) |  |
| 370 | 579 (401–403) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,275 (\*) |  |
| 371 | 580 (401–402) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,054 |  |
| 372 | 581 (389–400) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,448 (\*) |  |
| 373 | 582 (399–400) | (Nosník) | S 235 | U 180 | 1,250 | N-M-V | 0,391 |  |
| 374 | 583 (398–399) | (Nosník) | S 235 | U 180 | 1,837 | N-M-V (\*) | 0,487 (\*) |  |
| 375 | 584 (397–398) | (Nosník) | S 235 | U 180 | 1,850 | N-M-V (\*) | 0,487 (\*) |  |
| 376 | 585 (396–397) | (Nosník) | S 235 | U 180 | 1,250 | N-M-V | 0,389 |  |
| 377 | 586 (376–396) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,445 (\*) |  |
| 378 | 587 (379–395) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,166 (\*) |  |
| 379 | 588 (394–395) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,107 (\*) |  |
| 380 | 589 (393–394) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,218 (\*) |  |
| 381 | 590 (392–393) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,218 (\*) |  |
| 382 | 591 (391–392) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,107 (\*) |  |
| 383 | 592 (367–391) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,166 (\*) |  |
| 384 | 593 (388–390) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,284 (\*) |  |
| 385 | 594 (387–390) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,277 (\*) |  |
| 386 | 595 (388–389) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,474 |  |
| 387 | 596 (386–387) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,198 (\*) |  |
| 388 | 597 (385–386) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,198 (\*) |  |
| 389 | 598 (384–385) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V | 0,223 |  |
| 390 | 599 (383–384) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V | 0,221 |  |
| 391 | 600 (380–381) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,283 (\*) |  |
| 392 | 601 (378–380) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,286 (\*) |  |
| 393 | 602 (378–379) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,047 |  |
| 394 | 603 (375–377) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,288 (\*) |  |
| 395 | 604 (374–377) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,281 (\*) |  |
| 396 | 605 (375–376) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,468 |  |
| 397 | 606 (373–374) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,199 (\*) |  |
| 398 | 607 (372–373) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,199 (\*) |  |
| 399 | 608 (336–372) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V | 0,219 |  |
| 400 | 609 (336–371) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V | 0,216 |  |
| 401 | 610 (370–371) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,399 (\*) |  |
| 402 | 611 (369–370) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,394 (\*) |  |
| 403 | 612 (368–369) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,212 (\*) |  |
| 404 | 613 (366–368) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Vzp (\*) | 0,215 (\*) |  |
| 405 | 614 (366–367) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,036 |  |
| 406 | 615 (318–329) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | **1,303 (\*)** |  |
| 407 | 616 (328–329) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,427 (\*)** |  |
| 408 | 617 (327–328) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **8,706 (\*)** |  |
| 409 | 618 (326–327) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **8,706 (\*)** |  |
| 410 | 619 (325–326) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,427 (\*)** |  |
| 411 | 620 (305–325) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | **1,301 (\*)** |  |
| 412 | 621 (308–324) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,144 (\*) |  |
| 413 | 622 (323–324) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,091 (\*) |  |
| 414 | 623 (322–323) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,190 (\*) |  |
| 415 | 624 (321–322) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,197 (\*) |  |
| 416 | 625 (320–321) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,092 (\*) |  |
| 417 | 626 (295–320) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,145 (\*) |  |
| 418 | 627 (317–319) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,636 (\*) |  |
| 419 | 628 (316–319) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,630 (\*) |  |
| 420 | 629 (317–318) | (Nosník) | S 235 | U 180 | 0 | N-M-Vzp | 0,481 |  |
| 421 | 630 (315–316) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,432 (\*) |  |
| 422 | 631 (314–315) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,433 (\*) |  |
| 423 | 632 (313–314) | (Nosník) | S 235 | U 180 | 1,723 | N-M-Klop. (\*) | 0,643 (\*) |  |
| 424 | 633 (312–313) | (Nosník) | S 235 | U 180 | 0,943 | N-M-Vzp (\*) | 0,642 (\*) |  |
| 425 | 634 (311–312) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,289 (\*) |  |
| 426 | 635 (310–311) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,287 (\*) |  |
| 427 | 636 (309–310) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,142 (\*) |  |
| 428 | 637 (307–309) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,141 (\*) |  |
| 429 | 638 (307–308) | (Nosník) | S 235 | U 180 | 0,675 | N-M-V | 0,035 |  |
| 430 | 639 (304–306) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,557 (\*) |  |
| 431 | 640 (303–306) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,553 (\*) |  |
| 432 | 641 (304–305) | (Nosník) | S 235 | U 180 | 0 | N-M-Vzp | 0,420 |  |
| 433 | 642 (302–303) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,413 (\*) |  |
| 434 | 643 (301–302) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,414 (\*) |  |
| 435 | 644 (300–301) | (Nosník) | S 235 | U 180 | 1,723 | N-M-Klop. (\*) | 0,689 (\*) |  |
| 436 | 645 (299–300) | (Nosník) | S 235 | U 180 | 0,943 | N-M-Vzp (\*) | 0,688 (\*) |  |
| 437 | 646 (298–299) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,260 (\*) |  |
| 438 | 647 (297–298) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,258 (\*) |  |
| 439 | 648 (296–297) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,159 (\*) |  |
| 440 | 649 (294–296) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,158 (\*) |  |
| 441 | 650 (294–295) | (Nosník) | S 235 | U 180 | 0,675 | N-M-V | 0,040 |  |
| 442 | 651 (282–293) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,360 (\*) |  |
| 443 | 652 (292–293) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,411 (\*)** |  |
| 444 | 653 (291–292) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **10,300 (\*)** |  |
| 445 | 654 (290–291) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **10,300 (\*)** |  |
| 446 | 655 (289–290) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,411 (\*)** |  |
| 447 | 656 (269–289) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,361 (\*) |  |
| 448 | 657 (272–288) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,152 (\*) |  |
| 449 | 658 (287–288) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. | 0,093 |  |
| 450 | 659 (286–287) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,210 (\*) |  |
| 451 | 660 (285–286) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,210 (\*) |  |
| 452 | 661 (284–285) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. | 0,092 |  |
| 453 | 662 (259–284) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,150 (\*) |  |
| 454 | 663 (281–283) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,458 (\*) |  |
| 455 | 664 (280–283) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,460 (\*) |  |
| 456 | 665 (281–282) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,033 |  |
| 457 | 666 (279–280) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,482 (\*) |  |
| 458 | 667 (278–279) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,482 (\*) |  |
| 459 | 668 (277–278) | (Nosník) | S 235 | U 180 | 1,837 | N-M-Klop. (\*) | 0,334 (\*) |  |
| 460 | 669 (276–277) | (Nosník) | S 235 | U 180 | 1,939 | N-M-Vzp (\*) | 0,350 (\*) |  |
| 461 | 670 (275–276) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,137 (\*) |  |
| 462 | 671 (274–275) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,137 (\*) |  |
| 463 | 672 (273–274) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,121 |  |
| 464 | 673 (271–273) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,125 (\*) |  |
| 465 | 674 (271–272) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,032 |  |
| 466 | 675 (268–270) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,426 (\*) |  |
| 467 | 676 (267–270) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,428 (\*) |  |
| 468 | 677 (268–269) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,028 |  |
| 469 | 678 (266–267) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,444 (\*) |  |
| 470 | 679 (265–266) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,444 (\*) |  |
| 471 | 680 (264–265) | (Nosník) | S 235 | U 180 | 1,643 | N-M-Vzp (\*) | 0,283 (\*) |  |
| 472 | 681 (263–264) | (Nosník) | S 235 | U 180 | 1,939 | N-M-Vzp (\*) | 0,307 (\*) |  |
| 473 | 682 (262–263) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 474 | 683 (261–262) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,128 (\*) |  |
| 475 | 684 (260–261) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,124 |  |
| 476 | 685 (258–260) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,127 (\*) |  |
| 477 | 686 (258–259) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,031 |  |
| 478 | 687 (246–257) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,151 (\*) |  |
| 479 | 688 (256–257) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,385 (\*)** |  |
| 480 | 689 (255–256) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **10,300 (\*)** |  |
| 481 | 690 (254–255) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **10,300 (\*)** |  |
| 482 | 691 (253–254) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,385 (\*)** |  |
| 483 | 692 (233–253) | (Nosník) | S 235 | U 180 | 1,575 | N-M-V (\*) | 0,151 (\*) |  |
| 484 | 693 (236–252) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,157 (\*) |  |
| 485 | 694 (251–252) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,102 (\*) |  |
| 486 | 695 (250–251) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,206 (\*) |  |
| 487 | 696 (249–250) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,206 (\*) |  |
| 488 | 697 (248–249) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,101 (\*) |  |
| 489 | 698 (223–248) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,156 (\*) |  |
| 490 | 699 (245–247) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,224 (\*) |  |
| 491 | 700 (244–247) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,225 (\*) |  |
| 492 | 701 (245–246) | (Nosník) | S 235 | U 180 | 0,195 | N-M-Vzp | 0,026 |  |
| 493 | 702 (243–244) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,314 (\*) |  |
| 494 | 703 (242–243) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,315 (\*) |  |
| 495 | 704 (241–242) | (Nosník) | S 235 | U 180 | 1,499 | N-M-Klop. (\*) | 0,218 (\*) |  |
| 496 | 705 (240–241) | (Nosník) | S 235 | U 180 | 1,501 | N-M-Klop. (\*) | 0,236 (\*) |  |
| 497 | 706 (239–240) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,255 (\*) |  |
| 498 | 707 (238–239) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,255 (\*) |  |
| 499 | 708 (237–238) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,193 (\*) |  |
| 500 | 709 (235–237) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,192 (\*) |  |
| 501 | 710 (235–236) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,032 |  |
| 502 | 711 (232–234) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,211 (\*) |  |
| 503 | 712 (231–234) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,211 (\*) |  |
| 504 | 713 (232–233) | (Nosník) | S 235 | U 180 | 0,195 | N-M-Vzp | 0,022 |  |
| 505 | 714 (230–231) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,285 (\*) |  |
| 506 | 715 (229–230) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,286 (\*) |  |
| 507 | 716 (228–229) | (Nosník) | S 235 | U 180 | 1,499 | N-M-Klop. (\*) | 0,194 (\*) |  |
| 508 | 717 (227–228) | (Nosník) | S 235 | U 180 | 1,501 | N-M-Klop. (\*) | 0,213 (\*) |  |
| 509 | 718 (226–227) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,267 (\*) |  |
| 510 | 719 (225–226) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,266 (\*) |  |
| 511 | 720 (224–225) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,204 (\*) |  |
| 512 | 721 (222–224) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,204 (\*) |  |
| 513 | 722 (222–223) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,034 |  |
| 514 | 723 (210–221) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,145 (\*) |  |
| 515 | 724 (220–221) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,356 (\*)** |  |
| 516 | 725 (219–220) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **9,844 (\*)** |  |
| 517 | 726 (218–219) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **9,844 (\*)** |  |
| 518 | 727 (217–218) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,356 (\*)** |  |
| 519 | 728 (197–217) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,145 (\*) |  |
| 520 | 729 (200–216) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,146 (\*) |  |
| 521 | 730 (215–216) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,095 (\*) |  |
| 522 | 731 (214–215) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,194 (\*) |  |
| 523 | 732 (213–214) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,193 (\*) |  |
| 524 | 733 (212–213) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,095 (\*) |  |
| 525 | 734 (187–212) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,146 (\*) |  |
| 526 | 735 (209–211) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 527 | 736 (208–211) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 528 | 737 (209–210) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,009 |  |
| 529 | 738 (207–208) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,137 (\*) |  |
| 530 | 739 (206–207) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,137 (\*) |  |
| 531 | 740 (205–206) | (Nosník) | S 235 | U 180 | 1,501 | N-M-Vzp (\*) | 0,116 (\*) |  |
| 532 | 741 (204–205) | (Nosník) | S 235 | U 180 | 1,551 | N-M-Vzp (\*) | 0,071 (\*) |  |
| 533 | 742 (203–204) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,158 (\*) |  |
| 534 | 743 (202–203) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,158 (\*) |  |
| 535 | 744 (201–202) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,154 (\*) |  |
| 536 | 745 (199–201) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,150 (\*) |  |
| 537 | 746 (199–200) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,027 |  |
| 538 | 747 (196–198) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 539 | 748 (195–198) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 540 | 749 (196–197) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,009 |  |
| 541 | 750 (194–195) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 542 | 751 (193–194) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 543 | 752 (192–193) | (Nosník) | S 235 | U 180 | 1,501 | N-M-Vzp (\*) | 0,111 (\*) |  |
| 544 | 753 (191–192) | (Nosník) | S 235 | U 180 | 1,551 | N-M-Vzp (\*) | 0,072 (\*) |  |
| 545 | 754 (190–191) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,161 (\*) |  |
| 546 | 755 (189–190) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,161 (\*) |  |
| 547 | 756 (188–189) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,158 (\*) |  |
| 548 | 757 (186–188) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,153 (\*) |  |
| 549 | 758 (186–187) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,028 |  |
| 550 | 759 (174–185) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Vzp (\*) | 0,145 (\*) |  |
| 551 | 760 (184–185) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,328 (\*)** |  |
| 552 | 761 (183–184) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **9,844 (\*)** |  |
| 553 | 762 (182–183) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **9,844 (\*)** |  |
| 554 | 763 (181–182) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,329 (\*)** |  |
| 555 | 764 (161–181) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Vzp (\*) | 0,145 (\*) |  |
| 556 | 765 (164–180) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,147 (\*) |  |
| 557 | 766 (179–180) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,095 (\*) |  |
| 558 | 767 (178–179) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,193 (\*) |  |
| 559 | 768 (177–178) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,193 (\*) |  |
| 560 | 769 (176–177) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,095 (\*) |  |
| 561 | 770 (151–176) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,147 (\*) |  |
| 562 | 771 (173–175) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 563 | 772 (172–175) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,128 (\*) |  |
| 564 | 773 (173–174) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,007 |  |
| 565 | 774 (171–172) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,125 (\*) |  |
| 566 | 775 (170–171) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,125 (\*) |  |
| 567 | 776 (169–170) | (Nosník) | S 235 | U 180 | 0,100 | N-M-V | 0,461 |  |
| 568 | 777 (168–169) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,386 |  |
| 569 | 778 (167–168) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,180 (\*) |  |
| 570 | 779 (166–167) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,180 (\*) |  |
| 571 | 780 (165–166) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,156 (\*) |  |
| 572 | 781 (163–165) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,157 (\*) |  |
| 573 | 782 (163–164) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,029 |  |
| 574 | 783 (160–162) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,128 (\*) |  |
| 575 | 784 (159–162) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,127 (\*) |  |
| 576 | 785 (160–161) | (Nosník) | S 235 | U 180 | 0,195 | N-M-V | 0,008 |  |
| 577 | 786 (158–159) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,125 (\*) |  |
| 578 | 787 (157–158) | (Nosník) | S 235 | U 180 | 1,500 | N-M-V (\*) | 0,125 (\*) |  |
| 579 | 788 (156–157) | (Nosník) | S 235 | U 180 | 0,680 | N-M-Klop. | 0,462 |  |
| 580 | 789 (155–156) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,349 |  |
| 581 | 790 (154–155) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,185 (\*) |  |
| 582 | 791 (153–154) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,185 (\*) |  |
| 583 | 792 (152–153) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,158 (\*) |  |
| 584 | 793 (150–152) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,159 (\*) |  |
| 585 | 794 (150–151) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,029 |  |
| 586 | 795 (138–149) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,172 (\*) |  |
| 587 | 796 (148–149) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,302 (\*)** |  |
| 588 | 797 (147–148) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **10,077 (\*)** |  |
| 589 | 798 (146–147) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **10,077 (\*)** |  |
| 590 | 799 (145–146) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,302 (\*)** |  |
| 591 | 800 (125–145) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,173 (\*) |  |
| 592 | 801 (128–144) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,149 (\*) |  |
| 593 | 802 (143–144) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,096 (\*) |  |
| 594 | 803 (142–143) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,207 (\*) |  |
| 595 | 804 (141–142) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,200 (\*) |  |
| 596 | 805 (140–141) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,096 (\*) |  |
| 597 | 806 (115–140) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,149 (\*) |  |
| 598 | 807 (137–139) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,139 (\*) |  |
| 599 | 808 (136–139) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,133 (\*) |  |
| 600 | 809 (137–138) | (Nosník) | S 235 | U 180 | 0 | N-M-V | 0,010 |  |
| 601 | 810 (135–136) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 602 | 811 (134–135) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 603 | 812 (133–134) | (Nosník) | S 235 | U 180 | 0,976 | N-M-V (\*) | 0,074 (\*) |  |
| 604 | 813 (132–133) | (Nosník) | S 235 | U 180 | 2,024 | N-M-Vzp (\*) | 0,073 (\*) |  |
| 605 | 814 (131–132) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,145 (\*) |  |
| 606 | 815 (130–131) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,145 (\*) |  |
| 607 | 816 (129–130) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,150 (\*) |  |
| 608 | 817 (127–129) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,153 (\*) |  |
| 609 | 818 (127–128) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,028 |  |
| 610 | 819 (124–126) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,139 (\*) |  |
| 611 | 820 (123–126) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,133 (\*) |  |
| 612 | 821 (124–125) | (Nosník) | S 235 | U 180 | 0 | N-M-V | 0,013 |  |
| 613 | 822 (122–123) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,132 (\*) |  |
| 614 | 823 (121–122) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,133 (\*) |  |
| 615 | 824 (120–121) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,128 |  |
| 616 | 825 (119–120) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,126 |  |
| 617 | 826 (118–119) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,147 (\*) |  |
| 618 | 827 (117–118) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,147 (\*) |  |
| 619 | 828 (116–117) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,148 (\*) |  |
| 620 | 829 (114–116) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,149 (\*) |  |
| 621 | 830 (114–115) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,028 |  |
| 622 | 831 (102–113) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,146 (\*) |  |
| 623 | 832 (112–113) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,282 (\*)** |  |
| 624 | 833 (111–112) | (Nosník) | S 235 | U 180 | 3,700 | Vz (\*) | **10,745 (\*)** |  |
| 625 | 834 (110–111) | (Nosník) | S 235 | U 180 | 0 | Vz (\*) | **10,745 (\*)** |  |
| 626 | 835 (109–110) | (Nosník) | S 235 | U 180 | 0 | N-M-V (\*) | **11,282 (\*)** |  |
| 627 | 836 (89–109) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,146 (\*) |  |
| 628 | 837 (92–104) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,154 (\*) |  |
| 629 | 838 (104–106) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,102 (\*) |  |
| 630 | 839 (106–108) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,204 (\*) |  |
| 631 | 840 (107–108) | (Nosník) | S 235 | U 180 | 1,850 | N-M-Klop. (\*) | 0,208 (\*) |  |
| 632 | 841 (105–107) | (Nosník) | S 235 | U 180 | 1,250 | N-M-Klop. (\*) | 0,101 (\*) |  |
| 633 | 842 (79–105) | (Nosník) | S 235 | U 180 | 1,575 | N-M-Klop. (\*) | 0,155 (\*) |  |
| 634 | 849 (101–103) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 635 | 850 (100–103) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 636 | 851 (101–102) | (Nosník) | S 235 | U 180 | 0 | N-M-V | 0,025 |  |
| 637 | 852 (99–100) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 638 | 853 (98–99) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 639 | 854 (97–98) | (Nosník) | S 235 | U 180 | 1,048 | N-M-V (\*) | 0,069 (\*) |  |
| 640 | 855 (96–97) | (Nosník) | S 235 | U 180 | 1,952 | N-M-V (\*) | 0,070 (\*) |  |
| 641 | 856 (95–96) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,132 (\*) |  |
| 642 | 857 (94–95) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,131 (\*) |  |
| 643 | 858 (93–94) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 644 | 859 (91–93) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 645 | 860 (91–92) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,025 |  |
| 646 | 861 (88–90) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 647 | 862 (87–90) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 648 | 863 (88–89) | (Nosník) | S 235 | U 180 | 0 | N-M-V | 0,027 |  |
| 649 | 864 (86–87) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,128 (\*) |  |
| 650 | 865 (85–86) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 651 | 866 (84–85) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,119 |  |
| 652 | 867 (83–84) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. | 0,119 |  |
| 653 | 868 (82–83) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,129 (\*) |  |
| 654 | 869 (81–82) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,128 (\*) |  |
| 655 | 870 (80–81) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,130 (\*) |  |
| 656 | 871 (78–80) | (Nosník) | S 235 | U 180 | 1,500 | N-M-Klop. (\*) | 0,134 (\*) |  |
| 657 | 872 (78–79) | (Nosník) | S 235 | U 180 | 0,675 | N-M-Klop. | 0,025 |  |
| 658 | 873 (27–47) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,068 (\*) |  |
| 659 | 874 (22–47) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,065 (\*) |  |
| 660 | 875 (27–65) | (Nosník) | S 235 | IPN 180 + UPN180 | 0,195 | N-M-Vzp (\*) | 0,004 (\*) |  |
| 661 | 876 (22–43) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,062 (\*) |  |
| 662 | 877 (17–43) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,062 (\*) |  |
| 663 | 878 (17–39) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,058 (\*) |  |
| 664 | 879 (12–39) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,058 (\*) |  |
| 665 | 880 (12–35) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-Vzp (\*) | 0,047 (\*) |  |
| 666 | 881 (7–35) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-Vzp (\*) | 0,059 (\*) |  |
| 667 | 882 (7–32) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,069 (\*) |  |
| 668 | 883 (2–32) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,073 (\*) |  |
| 669 | 884 (2–51) | (Nosník) | S 235 | IPN 180 + UPN180 | 0,675 | N-M-Vzp (\*) | 0,011 (\*) |  |
| 670 | 885 (29–49) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,068 (\*) |  |
| 671 | 886 (24–49) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,065 (\*) |  |
| 672 | 887 (29–67) | (Nosník) | S 235 | IPN 180 + UPN180 | 0,195 | N-M-Vzp (\*) | 0,004 (\*) |  |
| 673 | 888 (24–45) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,063 (\*) |  |
| 674 | 889 (19–45) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,063 (\*) |  |
| 675 | 890 (19–41) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,070 (\*) |  |
| 676 | 891 (14–41) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,070 (\*) |  |
| 677 | 892 (14–37) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,053 (\*) |  |
| 678 | 893 (9–37) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,065 (\*) |  |
| 679 | 894 (9–34) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,062 (\*) |  |
| 680 | 895 (4–34) | (Nosník) | S 235 | IPN 180 + UPN180 | 1,500 | N-M-V (\*) | 0,065 (\*) |  |
| 681 | 896 (4–53) | (Nosník) | S 235 | IPN 180 + UPN180 | 0,675 | N-M-Vzp (\*) | 0,011 (\*) |  |
| 682 | 903 (1493–1494) | (Příhradovina) | S 235 | IPN 160 | 0 | N-M-V | 0,237 |  |
| 683 | 912 (1472–1473) | (Příhradovina) | S 235 | IPN 160 | 0 | N-M-V | 0,238 |  |
| 684 | 917 (417–1451) | (Nosník) | S 235 | U 180 | 2,470 | N-M-Klop. | 0,123 |  |
| 685 | 918 (664–665) | (Žebro) | S 235 | IPN 160 | 0,260 | N-M-Klop. | 0,064 |  |
| 686 | 919 (662–663) | (Žebro) | S 235 | IPN 160 | 0,260 | N-M-Klop. | 0,083 |  |
| 687 | 920 (651–654) | (Žebro) | S 235 | IPN 200 | 0 | N-M-Klop. | 0,019 |  |
| 688 | 921 (552–555) | (Žebro) | S 235 | IPN 160 | 1,067 | N-M-Vzp | 0,072 |  |
| 689 | 1010 (937–916) | (Žebro) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,127 |  |
| 690 | 1011 (927–906) | (Žebro) | S 235 | IPN 220 | 1,500 | N-M-Klop. | 0,327 |  |
| 691 | 1012 (916–895) | (Žebro) | S 235 | IPN 220 | 1,500 | N-M-Klop. | 0,329 |  |
| 692 | 1013 (977–958) | (Žebro) | S 235 | IPN 220 | 0 | N-M-Klop. | 0,263 |  |
| — | — | — | — | — | — | — | — | — |
|  | 533 (437–443) | (Nosník) | S 235 | U 200 | 0,390 | Vz (\*) | **206,635 (\*)** |  |

SPOJE - VÝMĚNA

Sbalit všeRozbalit vše

# N390

## Přípoj

| **Položka** |  |
| --- | --- |
| Jméno | N390 |
| Popis | KOTENÍ VÝMĚNY NA STÁVAJÍCÍ SLOUP |
| Výpočet | Napětí, přetvoření/ zatížení v rovnováze |

## Nosníky a sloupy

| **Jméno** | **Průřez** | **β – Směr**  [°] | **γ - Sklon**  [°] | **α - Pootočení**  [°] | **Ofset ey**  [mm] | **Ofset ez**  [mm] |
| --- | --- | --- | --- | --- | --- | --- |
| DM63 | 3 - I 1300 | 0,0 | -90,0 | 180,0 | 0 | 0 |
| DM304 | 18 - U 180 | -90,0 | 0,0 | 90,0 | 0 | 740 |
| DM863 | 83 - HE 220 B | 90,0 | 0,0 | 0,0 | 540 | 0 |

## Průřezy

| **Jméno** | **Materiál** |
| --- | --- |
| 3 - I 1300 | S 235 |
| 18 - U 180 | S 235 |
| 83 - HE 220 B | S 235 |

## Průřezy

| **Jméno** | **Materiál** | **Obrázek** |
| --- | --- | --- |
| 3 - I 1300 | S 235 |  |
| 18 - U 180 | S 235 |  |
| 83 - HE 220 B | S 235 |  |

## Materiál

|  |  |
| --- | --- |
| Ocel | S 235 (EN) |
| Šrouby | M12 8.8 |

## Šrouby/Kotvy

| **Jméno** | **Sestava šroubů** | **Průměr**  [mm] | **fu**  [MPa] | **Čistá plocha**  [mm2] |
| --- | --- | --- | --- | --- |
| M12 8.8 | M12 8.8 | 12 | 800,0 | 113 |

## Účinky zatížení

| **Jméno** | **Prvek** | **Poz.** | **N**  [kN] | **Vy**  [kN] | **Vz**  [kN] | **Mx**  [kNm] | **My**  [kNm] | **Mz**  [kNm] |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| opláštění(1) | DM63 | Zač. | 185,3 | 0,2 | -11,0 | 0,0 | -58,3 | -0,5 |
|  | DM63 | Konec | -184,9 | -0,3 | 10,9 | 0,0 | 58,3 | -0,4 |
|  | DM304 | Konec | 0,0 | -0,7 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -0,1 | 0,0 | 0,9 | 0,0 | -0,9 | 0,0 |
| Vítr X+.Ss.P(2) | DM63 | Zač. | -41,2 | 0,3 | -18,8 | 0,2 | 69,5 | 0,5 |
|  | DM63 | Konec | 41,0 | 0,1 | 15,6 | 0,1 | -69,5 | -1,0 |
|  | DM304 | Konec | 2,0 | 0,0 | -0,6 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 2,4 | -2,6 | 0,2 | 0,0 | -0,5 | -0,2 |
| Vítr X+.Sp.S(3) | DM63 | Zač. | -21,9 | 0,1 | -22,4 | 0,3 | 58,1 | 0,4 |
|  | DM63 | Konec | 21,8 | 0,1 | 16,3 | 0,3 | -58,1 | -0,6 |
|  | DM304 | Konec | 1,2 | 0,0 | -1,2 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 1,4 | -4,9 | 0,1 | 0,0 | -0,2 | -0,6 |
| Vítr X-.T+.O(8) | DM63 | Zač. | 5,5 | 0,4 | 16,7 | -0,1 | -54,2 | -0,3 |
|  | DM63 | Konec | -5,9 | -0,3 | -14,1 | -0,2 | 54,2 | -0,6 |
|  | DM304 | Konec | 0,1 | 0,0 | 0,5 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 0,2 | 2,1 | 0,4 | 0,0 | -0,9 | 0,3 |
| Vítr X-.Ss.P(4) | DM63 | Zač. | -11,1 | 0,8 | 21,4 | -0,2 | -53,6 | -0,2 |
|  | DM63 | Konec | 10,5 | -0,3 | -17,6 | -0,3 | 53,6 | -1,1 |
|  | DM304 | Konec | 1,8 | 0,0 | 0,7 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 2,3 | 3,0 | 0,6 | 0,0 | -1,2 | 0,5 |
| Vítr X+.Ss.S(5) | DM63 | Zač. | -25,1 | 0,0 | -22,2 | 0,3 | 63,2 | 0,4 |
|  | DM63 | Konec | 25,1 | 0,1 | 16,2 | 0,3 | -63,1 | -0,6 |
|  | DM304 | Konec | 1,2 | 0,0 | -1,2 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 1,3 | -4,9 | 0,1 | 0,0 | -0,1 | -0,6 |
| Vítr X-.Ss.S(6) | DM63 | Zač. | 5,0 | 0,6 | 18,0 | 0,0 | -60,0 | -0,3 |
|  | DM63 | Konec | -5,4 | -0,2 | -17,1 | -0,1 | 60,0 | -0,6 |
|  | DM304 | Konec | 1,0 | 0,0 | 0,2 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 1,3 | 0,7 | 0,4 | 0,0 | -0,9 | 0,2 |
| Vítr X+.Sp.P(9) | DM63 | Zač. | -38,0 | 0,3 | -19,0 | 0,2 | 64,5 | 0,5 |
|  | DM63 | Konec | 37,8 | 0,1 | 15,8 | 0,1 | -64,5 | -1,0 |
|  | DM304 | Konec | 2,0 | 0,0 | -0,6 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 2,4 | -2,6 | 0,2 | 0,0 | -0,5 | -0,2 |
| Vítr Y+.S.P(7) | DM63 | Zač. | -27,8 | -2,0 | 6,1 | -0,3 | 13,5 | 6,8 |
|  | DM63 | Konec | 24,1 | -5,3 | -0,4 | -0,3 | -13,6 | -14,2 |
|  | DM304 | Konec | -7,7 | 0,0 | 1,1 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -15,0 | 4,6 | 3,7 | 0,0 | -7,4 | 0,5 |
| Vítr Y+.S.S(10) | DM63 | Zač. | -11,7 | -2,3 | 2,7 | -0,1 | 7,2 | 6,7 |
|  | DM63 | Konec | 8,1 | -5,2 | 0,1 | -0,1 | -7,2 | -13,8 |
|  | DM304 | Konec | -8,5 | 0,0 | 0,5 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -16,0 | 2,3 | 3,6 | 0,0 | -7,1 | 0,2 |
| Vítr Y-.S.P(11) | DM63 | Zač. | -9,7 | 2,1 | 4,9 | -0,2 | 2,5 | -6,7 |
|  | DM63 | Konec | 13,6 | 5,3 | -0,9 | -0,2 | -2,5 | 14,3 |
|  | DM304 | Konec | 7,9 | 0,0 | 0,7 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 15,2 | 3,2 | -3,9 | 0,0 | 7,6 | 0,4 |
| Vítr X+.T+.O(12) | DM63 | Zač. | -5,6 | -0,4 | -17,2 | 0,1 | 54,2 | 0,3 |
|  | DM63 | Konec | 6,0 | 0,3 | 14,1 | 0,2 | -54,1 | 0,6 |
|  | DM304 | Konec | -0,1 | 0,0 | -0,7 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -0,2 | -2,4 | -0,4 | 0,0 | 0,9 | -0,3 |
| Vítr X+.T-.O(13) | DM63 | Zač. | -4,2 | -0,2 | -10,6 | 0,1 | 37,9 | 0,5 |
|  | DM63 | Konec | 4,1 | -0,2 | 9,4 | 0,1 | -37,9 | -0,8 |
|  | DM304 | Konec | -0,4 | 0,0 | -0,2 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -0,8 | -1,1 | 0,2 | 0,0 | -0,3 | -0,1 |
| vlastní tíha(14) | DM63 | Zač. | 56,8 | 1,5 | -2,3 | 0,0 | 1,6 | 4,0 |
|  | DM63 | Konec | -62,7 | -21,2 | 2,1 | 0,0 | -1,6 | -17,3 |
|  | DM304 | Konec | -6,5 | -0,3 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -26,2 | -0,2 | 6,2 | 0,0 | -13,3 | 0,0 |
| Vítr Y-.S.S(15) | DM63 | Zač. | 6,4 | 1,8 | 1,5 | -0,1 | -3,8 | -6,8 |
|  | DM63 | Konec | -2,4 | 5,4 | -0,3 | -0,1 | 3,8 | 14,8 |
|  | DM304 | Konec | 7,0 | 0,0 | 0,2 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | 14,2 | 0,9 | -4,0 | 0,0 | 7,9 | 0,1 |
| proměnné užitné(16) | DM63 | Zač. | -5,9 | 1,4 | -0,8 | 0,0 | 7,5 | 2,8 |
|  | DM63 | Konec | 0,6 | -16,5 | 0,7 | 0,0 | -7,5 | -13,3 |
|  | DM304 | Konec | -5,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM863 | Konec | -20,1 | -0,1 | 5,3 | 0,0 | -10,5 | 0,0 |

## Výsledky

## Souhrn

| **Jméno** | **Hodnota** | **Status posudku** |
| --- | --- | --- |
| Aplikovaná zatížení | 100,0% | OK |
| Plechy | 0,8 < 5% | OK |
| Šrouby | 89,2 < 100% | OK |
| Svary | 27,4 < 100% | OK |

## Plechy

| **Jméno** | **Tloušťka**  [mm] | **Zatížení** | **σEd**  [MPa] | **εPl**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- |
| DM63-bfl 1 | 25 | vlastní tíha(14) | 72,3 | 0,0 | OK |
| DM63-tfl 1 | 25 | vlastní tíha(14) | 46,8 | 0,0 | OK |
| DM63-w 1 | 10 | vlastní tíha(14) | 236,8 | 0,8 | OK |
| DM304-bfl 1 | 11 | vlastní tíha(14) | 53,3 | 0,0 | OK |
| DM304-tfl 1 | 11 | opláštění(1) | 37,9 | 0,0 | OK |
| DM304-w 1 | 8 | vlastní tíha(14) | 41,3 | 0,0 | OK |
| DM863-bfl 1 | 16 | vlastní tíha(14) | 235,1 | 0,0 | OK |
| DM863-tfl 1 | 16 | vlastní tíha(14) | 235,2 | 0,1 | OK |
| DM863-w 1 | 10 | vlastní tíha(14) | 171,0 | 0,0 | OK |
| ČD1 | 10 | vlastní tíha(14) | 236,1 | 0,5 | OK |

##### Návrhová data

| **Materiál** | **fy**  [MPa] | **εlim**  [1e-4] |
| --- | --- | --- |
| S 235 | 235,0 | 500,0 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| εPl | Přetvoření |
| σEd | Srovn. napětí |

|  |  |
| --- | --- |
|  |  |

Posudek přetvoření, vlastní tíha(14)

|  |  |
| --- | --- |
|  |  |

Srovnávací napětí, vlastní tíha(14)

## Šrouby

|  | **Jméno** | **Zatížení** | **Ft,Ed [kN]** | **V  [kN]** | **Utt [%]** | **Uts [%]** | **Utts [%]** | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B1 | vlastní tíha(14) | 18,0 | 1,7 | 37,2 | 5,2 | 31,8 | OK |
| B2 | vlastní tíha(14) | 43,1 | 2,0 | 89,2 | 6,1 | 69,8 | OK |
| B3 | Vítr Y-.S.P(11) | 18,1 | 2,2 | 37,4 | 6,8 | 33,5 | OK |
| B4 | Vítr Y-.S.S(15) | 40,1 | 1,8 | 82,8 | 5,4 | 64,6 | OK |

## Návrhová data

| **Jméno** | **Ft,Rd**  [kN] | **Bp,Rd**  [kN] | **Fv,Rd**  [kN] | **Fb,Rd**  [kN] |
| --- | --- | --- | --- | --- |
| M12 8.8 - 1 | 48,4 | 103,1 | 32,3 | 86,4 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| Ft,Rd | Tahová únosnost šroubu podle EN 1993-1-8 tab. 3.4 |
| Ft,Ed | Tahová síla |
| Bp,Rd | Únosnost v protlačení |
| V | Výslednice smykových sil Vy, Vz ve šroubu. |
| Fv,Rd | Únosnost šroubu ve smyku EN\_1993-1-8 tabulka 3.4 |
| Fb,Rd | Únosnost plechu v otlačení podle EN 1993-1-8 tab. 3.4 |
| Fs,Rd | Návrhová únosnost v prokluzu EN 1993-1-8 tabulka 3.9 |
| Utt | Využití v tahu |
| Uts | Využití ve smyku |
| Utts | Využití v tahu a smyku EN 1993-1-8 tabulka 3.4 |

## Svary (Průměrná hodnota)

| **Položka** | **Hrana** | **Účinná tl. [mm]** | **Délka**  [mm] | **Zatížení** | **σw,Ed**  [MPa] | **σ⏊**  [MPa] | **τ||**  [MPa] | **τ⏊**  [MPa] | **Ut**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ČD1 | DM863-bfl 1 | ◢5,0◣ | 185 | Vítr Y+.S.S(10) | 47,2 | 15,2 | -3,2 | -25,6 | 13,9 | OK |
| ČD1 | DM863-tfl 1 | ◢5,0◣ | 185 | vlastní tíha(14) | 92,8 | -38,3 | 3,9 | 48,7 | 27,4 | OK |
| ČD1 | DM863-w 1 | ◢4,8◣ | 204 | vlastní tíha(14) | 41,9 | 15,5 | 1,9 | 22,4 | 12,4 | OK |
| DM63-bfl 1 | DM304-bfl 1 | ◢11,0 | 175 | Vítr Y+.S.S(10) | 21,0 | 4,6 | -6,0 | 10,2 | 6,2 | OK |
| DM63-bfl 1 | DM304-bfl 1 | ◢11,0 | 175 | Vítr Y+.S.P(7) | 39,6 | -7,3 | 21,1 | -7,6 | 11,7 | OK |

##### Návrhová data

|  | **βw**  [-] | **σw,Rd**  [MPa] | **0.9 σ**  [MPa] |
| --- | --- | --- | --- |
| S 235 | 0,85 | 338,8 | 259,2 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| σw,Ed | Ekvivalentní napětí |
| σw,Rd | Únosnost na srovnávací napětí |
| σ⏊ | Kolmé napětí |
| τ|| | Smykové napětí rovnoběžné s osou svaru |
| τ⏊ | Smykové napětí kolmé k ose svaru |
| 0.9 σ | Únosnost na kolmé napětí - 0.9\*fu/γM2 |
| βw | Součinitel korelace podle EN 1993-1-8 tab. 4.1 |
| Ut | Využití |

## Výkaz materiálu

## Výrobní operace

| **Jméno** | **Plechy  [mm]** | **Tvar** | **Počet** | **Svary  [mm]** | **Délka  [mm]** | **Šrouby** | **Počet** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ČD1 | P10,0x220,0-220,0 (S 235) |  | 1 | Oboustranný koutový: a = 4,8 Oboustranný koutový: a = 5,0 | 204,0 370,0 | M12 8.8 | 4 |

## Svary

| **Typ** | **Materiál** | **Tloušťka  [mm]** | **Délka  [mm]** |
| --- | --- | --- | --- |
| Oboustranný koutový | S 235 | 5,0 | 370,0 |
| Oboustranný koutový | S 235 | 4,8 | 204,0 |
| Koutový | S 235 | 11,0 | 350,0 |

## Šrouby

| **Jméno** | **Počet** |
| --- | --- |
| M12 8.8 | 4 |

# N391

## Přípoj

| **Položka** |  |
| --- | --- |
| Jméno | N391 |
| Popis | SLOUP NA VÝMĚNU |
| Výpočet | Napětí, přetvoření/ zatížení v rovnováze |

## Nosníky a sloupy

| **Jméno** | **Průřez** | **β – Směr**  [°] | **γ - Sklon**  [°] | **α - Pootočení**  [°] | **Ofset ey**  [mm] | **Ofset ez**  [mm] |
| --- | --- | --- | --- | --- | --- | --- |
| DM64 | 82 - IPN 220 | 0,0 | -90,0 | 180,0 | 0 | 0 |
| DM862 | 83 - HE 220 B | 90,0 | 0,0 | 0,0 | 0 | 0 |
| DM863 | 83 - HE 220 B | -90,0 | 0,0 | 0,0 | 0 | 0 |

## Průřezy

| **Jméno** | **Materiál** |
| --- | --- |
| 82 - IPN 220 | S 355 |
| 83 - HE 220 B | S 235 |
| 83 - HE 220 B | S 235 |

## Průřezy

| **Jméno** | **Materiál** | **Obrázek** |
| --- | --- | --- |
| 82 - IPN 220 | S 355 |  |
| 83 - HE 220 B | S 235 |  |
| 83 - HE 220 B | S 235 |  |

## Materiál

|  |  |
| --- | --- |
| Ocel | S 235 (EN), S 355 (EN) |
| Šrouby | M12 8.8 |

## Šrouby/Kotvy

| **Jméno** | **Sestava šroubů** | **Průměr**  [mm] | **fu**  [MPa] | **Čistá plocha**  [mm2] |
| --- | --- | --- | --- | --- |
| M12 8.8 | M12 8.8 | 12 | 800,0 | 113 |

## Účinky zatížení

| **Jméno** | **Prvek** | **Poz.** | **N**  [kN] | **Vy**  [kN] | **Vz**  [kN] | **Mx**  [kNm] | **My**  [kNm] | **Mz**  [kNm] |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| vlastní tíha(14) | DM64 | Konec | -9,5 | -0,1 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | -26,3 | 0,0 | -2,1 | 0,0 | -2,0 | 0,4 |
|  | DM863 | Konec | -26,1 | 0,0 | 11,6 | 0,0 | -2,0 | -0,4 |
| Vítr Y-.S.P(11) | DM64 | Konec | 0,5 | -0,1 | -6,7 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 15,2 | -3,4 | 2,4 | 0,0 | -0,5 | -8,0 |
|  | DM863 | Konec | 15,2 | 3,3 | -2,9 | 0,0 | -0,5 | 8,0 |
| Vítr Y-.S.S(15) | DM64 | Konec | 0,1 | -0,1 | -1,9 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 14,1 | -1,0 | 2,7 | 0,0 | -0,5 | -2,3 |
|  | DM863 | Konec | 14,2 | 1,0 | -2,8 | 0,0 | -0,5 | 2,3 |
| opláštění(1) | DM64 | Konec | -10,2 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 0,0 | 0,0 | 4,3 | 0,0 | -1,9 | 0,0 |
|  | DM863 | Konec | 0,0 | 0,0 | 5,9 | 0,0 | -1,9 | 0,0 |
| proměnné užitné(16) | DM64 | Konec | 0,0 | -0,1 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | -20,2 | 0,0 | -4,6 | 0,0 | 0,1 | 0,2 |
|  | DM863 | Konec | -20,1 | 0,0 | 4,6 | 0,0 | 0,1 | -0,2 |
| Vítr Y+.S.P(7) | DM64 | Konec | 0,6 | 0,1 | -9,5 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | -14,9 | -4,8 | -2,9 | 0,0 | 0,6 | -11,5 |
|  | DM863 | Konec | -14,9 | 4,7 | 2,2 | 0,0 | 0,6 | 11,5 |
| Vítr X+.Ss.S(5) | DM64 | Konec | -0,4 | 0,0 | 10,3 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 1,3 | 5,2 | 0,0 | 0,0 | -0,2 | 12,2 |
|  | DM863 | Konec | 1,3 | -5,1 | 0,4 | 0,0 | -0,2 | -12,2 |
| Vítr X+.Sp.S(3) | DM64 | Konec | -0,4 | 0,0 | 10,3 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 1,4 | 5,2 | 0,0 | 0,0 | -0,2 | 12,2 |
|  | DM863 | Konec | 1,4 | -5,1 | 0,4 | 0,0 | -0,2 | -12,2 |
| Sníh UD(17) | DM64 | Konec | -0,5 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | -0,1 | 0,0 | 0,3 | 0,0 | 0,2 | 0,0 |
|  | DM863 | Konec | -0,1 | 0,0 | 0,2 | 0,0 | 0,2 | 0,0 |
| Vítr X+.Ss.P(2) | DM64 | Konec | 0,0 | 0,0 | 5,6 | 0,0 | 0,0 | 0,0 |
|  | DM862 | Konec | 2,4 | 2,8 | -0,4 | 0,0 | -0,2 | 6,5 |
|  | DM863 | Konec | 2,4 | -2,7 | 0,4 | 0,0 | -0,2 | -6,5 |

## Výsledky

## Souhrn

| **Jméno** | **Hodnota** | **Status posudku** |
| --- | --- | --- |
| Aplikovaná zatížení | 100,0% | OK |
| Plechy | 0,3 < 5% | OK |
| Šrouby | 78,8 < 100% | OK |
| Svary | 84,3 < 100% | OK |

## Plechy

| **Jméno** | **Materiál** | **Tloušťka**  [mm] | **Zatížení** | **σEd**  [MPa] | **εPl**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- |
| DM64-bfl 1 | S 355 | 12 | Vítr X+.Ss.S(5) | 18,3 | 0,0 | OK |
| DM64-tfl 1 | S 355 | 12 | Vítr X+.Ss.S(5) | 18,1 | 0,0 | OK |
| DM64-w 1 | S 355 | 8 | Vítr X+.Sp.S(3) | 33,4 | 0,0 | OK |
| DM862-bfl 1 | S 235 | 16 | Vítr X+.Sp.S(3) | 205,2 | 0,0 | OK |
| DM862-tfl 1 | S 235 | 16 | Vítr X+.Ss.S(5) | 141,9 | 0,0 | OK |
| DM862-w 1 | S 235 | 10 | Vítr X+.Sp.S(3) | 141,0 | 0,0 | OK |
| DM863-bfl 1 | S 235 | 16 | Vítr X+.Sp.S(3) | 205,1 | 0,0 | OK |
| DM863-tfl 1 | S 235 | 16 | Vítr X+.Ss.S(5) | 141,8 | 0,0 | OK |
| DM863-w 1 | S 235 | 10 | Vítr X+.Sp.S(3) | 141,0 | 0,0 | OK |
| ČD1a | S 235 | 10 | Vítr X+.Sp.S(3) | 235,6 | 0,3 | OK |
| ČD1b | S 235 | 10 | Vítr X+.Sp.S(3) | 235,6 | 0,3 | OK |

##### Návrhová data

| **Materiál** | **fy**  [MPa] | **εlim**  [1e-4] |
| --- | --- | --- |
| S 355 | 355,0 | 500,0 |
| S 235 | 235,0 | 500,0 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| εPl | Přetvoření |
| σEd | Srovn. napětí |

|  |  |
| --- | --- |
|  |  |

Posudek přetvoření, Vítr X+.Sp.S(3)

|  |  |
| --- | --- |
|  |  |

Srovnávací napětí, Vítr X+.Sp.S(3)

## Šrouby

|  | **Jméno** | **Zatížení** | **Ft,Ed [kN]** | **V  [kN]** | **Utt [%]** | **Uts [%]** | **Utts [%]** | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B1 | Vítr X+.Sp.S(3) | 38,1 | 1,7 | 78,8 | 5,3 | 61,5 | OK |
| B2 | Vítr Y+.S.P(7) | 31,6 | 1,9 | 65,4 | 5,8 | 52,5 | OK |
| B3 | Vítr X+.Sp.S(3) | 37,4 | 1,7 | 77,2 | 5,4 | 60,5 | OK |
| B4 | Vítr Y+.S.P(7) | 32,0 | 1,8 | 66,1 | 5,5 | 52,7 | OK |

## Návrhová data

| **Jméno** | **Ft,Rd**  [kN] | **Bp,Rd**  [kN] | **Fv,Rd**  [kN] | **Fb,Rd**  [kN] |
| --- | --- | --- | --- | --- |
| M12 8.8 - 1 | 48,4 | 103,1 | 32,3 | 99,1 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| Ft,Rd | Tahová únosnost šroubu podle EN 1993-1-8 tab. 3.4 |
| Ft,Ed | Tahová síla |
| Bp,Rd | Únosnost v protlačení |
| V | Výslednice smykových sil Vy, Vz ve šroubu. |
| Fv,Rd | Únosnost šroubu ve smyku EN\_1993-1-8 tabulka 3.4 |
| Fb,Rd | Únosnost plechu v otlačení podle EN 1993-1-8 tab. 3.4 |
| Fs,Rd | Návrhová únosnost v prokluzu EN 1993-1-8 tabulka 3.9 |
| Utt | Využití v tahu |
| Uts | Využití ve smyku |
| Utts | Využití v tahu a smyku EN 1993-1-8 tabulka 3.4 |

## Svary (Průměrná hodnota)

| **Položka** | **Hrana** | **Účinná tl. [mm]** | **Délka**  [mm] | **Zatížení** | **σw,Ed**  [MPa] | **σ⏊**  [MPa] | **τ||**  [MPa] | **τ⏊**  [MPa] | **Ut**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ČD1a | DM862-bfl 1 | ◢5,0◣ | 176 | Vítr X+.Sp.S(3) | 272,0 | -119,0 | 69,9 | -122,7 | 80,3 | OK |
| ČD1a | DM862-tfl 1 | ◢5,0◣ | 176 | Vítr X+.Ss.S(5) | 285,7 | -124,4 | 75,9 | 127,6 | 84,3 | OK |
| ČD1a | DM862-w 1 | ◢4,8◣ | 204 | Vítr X+.Sp.S(3) | 47,3 | 20,9 | 0,3 | -24,5 | 14,0 | OK |
| ČD1b | DM863-bfl 1 | ◢5,0◣ | 176 | Vítr X+.Sp.S(3) | 272,1 | -119,0 | 69,8 | 122,8 | 80,3 | OK |
| ČD1b | DM863-tfl 1 | ◢5,0◣ | 176 | Vítr X+.Ss.S(5) | 285,7 | -124,4 | 75,9 | -127,6 | 84,3 | OK |
| ČD1b | DM863-w 1 | ◢4,8◣ | 204 | Vítr X+.Sp.S(3) | 47,3 | 20,9 | 0,5 | 24,5 | 14,0 | OK |

##### Návrhová data

|  | **βw**  [-] | **σw,Rd**  [MPa] | **0.9 σ**  [MPa] |
| --- | --- | --- | --- |
| S 235 | 0,85 | 338,8 | 259,2 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| σw,Ed | Ekvivalentní napětí |
| σw,Rd | Únosnost na srovnávací napětí |
| σ⏊ | Kolmé napětí |
| τ|| | Smykové napětí rovnoběžné s osou svaru |
| τ⏊ | Smykové napětí kolmé k ose svaru |
| 0.9 σ | Únosnost na kolmé napětí - 0.9\*fu/γM2 |
| βw | Součinitel korelace podle EN 1993-1-8 tab. 4.1 |
| Ut | Využití |

## Výkaz materiálu

## Výrobní operace

| **Jméno** | **Plechy  [mm]** | **Tvar** | **Počet** | **Svary  [mm]** | **Délka  [mm]** | **Šrouby** | **Počet** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| OŘEZ1 |  |  |  |  |  |  |  |
| ČD1 | P10,0x220,0-220,0 (S 235) |  | 2 | Oboustranný koutový: a = 4,8 Oboustranný koutový: a = 5,0 | 408,0 702,4 | M12 8.8 | 4 |

## Svary

| **Typ** | **Materiál** | **Tloušťka  [mm]** | **Délka  [mm]** |
| --- | --- | --- | --- |
| Oboustranný koutový | S 235 | 5,0 | 702,4 |
| Oboustranný koutový | S 235 | 4,8 | 408,0 |

## Šrouby

| **Jméno** | **Počet** |
| --- | --- |
| M12 8.8 | 4 |

# N4328

## Přípoj

| **Položka** |  |
| --- | --- |
| Jméno | N4328 |
| Popis | VÝMĚNA NA NOVÝ SLOUP |
| Výpočet | Napětí, přetvoření/ zatížení v rovnováze |

## Nosníky a sloupy

| **Jméno** | **Průřez** | **β – Směr**  [°] | **γ - Sklon**  [°] | **α - Pootočení**  [°] | **Ofset ey**  [mm] | **Ofset ez**  [mm] |
| --- | --- | --- | --- | --- | --- | --- |
| DM863 | 83 - HE 220 B | 90,0 | 0,0 | 0,0 | 0 | 0 |
| DM533 | 82 - IPN 220 | 0,0 | 90,0 | 0,0 | 0 | 0 |

Průřezy

| **Jméno** | **Materiál** |
| --- | --- |
| 83 - HE 220 B | S 235 |
| 82 - IPN 220 | S 355 |

## Průřezy

| **Jméno** | **Materiál** | **Obrázek** |
| --- | --- | --- |
| 83 - HE 220 B | S 235 |  |
| 82 - IPN 220 | S 355 |  |

## Materiál

|  |  |
| --- | --- |
| Ocel | S 235 (EN), S 355 (EN) |
| Šrouby | M12 8.8 |

## Šrouby/Kotvy

| **Jméno** | **Sestava šroubů** | **Průměr**  [mm] | **fu**  [MPa] | **Čistá plocha**  [mm2] |
| --- | --- | --- | --- | --- |
| M12 8.8 | M12 8.8 | 12 | 800,0 | 113 |

## Účinky zatížení

| **Jméno** | **Prvek** | **Poz.** | **N**  [kN] | **Vy**  [kN] | **Vz**  [kN] | **Mx**  [kNm] | **My**  [kNm] | **Mz**  [kNm] |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| vlastní tíha(14) | DM863 | Zač. | 26,2 | 0,2 | -7,9 | 0,0 | -4,2 | -0,3 |
|  | DM863 | Konec | -26,1 | 0,0 | -12,0 | 0,0 | 4,2 | 0,3 |
|  | DM533 | Konec | -19,9 | -0,1 | 0,1 | 0,0 | 0,0 | 0,0 |
| Vítr Y-.S.P(11) | DM863 | Zač. | -15,2 | -2,0 | 3,9 | 0,0 | 2,0 | 6,2 |
|  | DM863 | Konec | 15,2 | 3,4 | 2,9 | 0,0 | -2,0 | -6,2 |
|  | DM533 | Konec | 6,7 | 0,0 | 1,4 | 0,0 | 0,0 | 0,0 |
| Vítr Y-.S.S(15) | DM863 | Zač. | -14,2 | -0,6 | 4,0 | 0,0 | 2,0 | 1,7 |
|  | DM863 | Konec | 14,2 | 1,0 | 2,8 | 0,0 | -2,0 | -1,7 |
|  | DM533 | Konec | 6,9 | 0,0 | 0,4 | 0,0 | 0,0 | 0,0 |
| opláštění(1) | DM863 | Zač. | 0,1 | 0,0 | -0,9 | 0,0 | -1,3 | 0,0 |
|  | DM863 | Konec | 0,0 | 0,0 | -5,9 | 0,0 | 1,3 | 0,0 |
|  | DM533 | Konec | -6,8 | -0,1 | 0,0 | 0,0 | 0,0 | 0,0 |
| proměnné užitné(16) | DM863 | Zač. | 20,1 | 0,1 | -5,3 | 0,0 | -2,5 | -0,2 |
|  | DM863 | Konec | -20,1 | 0,0 | -4,6 | 0,0 | 2,5 | 0,2 |
|  | DM533 | Konec | -9,9 | 0,0 | 0,1 | 0,0 | 0,0 | 0,0 |
| Vítr Y+.S.P(7) | DM863 | Zač. | 15,0 | -2,9 | -3,7 | 0,0 | -1,8 | 8,9 |
|  | DM863 | Konec | -14,9 | 4,9 | -2,2 | 0,0 | 1,8 | -8,9 |
|  | DM533 | Konec | -5,9 | 0,0 | 2,0 | 0,0 | 0,0 | 0,0 |
| Vítr X+.Ss.S(5) | DM863 | Zač. | -1,3 | 3,0 | -0,1 | 0,0 | 0,0 | -9,4 |
|  | DM863 | Konec | 1,3 | -5,3 | -0,4 | 0,0 | 0,0 | 9,4 |
|  | DM533 | Konec | -0,5 | 0,0 | -2,2 | 0,0 | 0,0 | 0,0 |
| Vítr X+.Sp.S(3) | DM863 | Zač. | -1,4 | 3,0 | -0,1 | 0,0 | 0,0 | -9,4 |
|  | DM863 | Konec | 1,4 | -5,3 | -0,4 | 0,0 | 0,0 | 9,4 |
|  | DM533 | Konec | -0,5 | 0,0 | -2,2 | 0,0 | 0,0 | 0,0 |

## Výsledky

## Souhrn

| **Jméno** | **Hodnota** | **Status posudku** |
| --- | --- | --- |
| Aplikovaná zatížení | 100,0% | OK |
| Plechy | 0,0 < 5% | OK |
| Šrouby | 5,0 < 100% | OK |
| Svary | 3,7 < 100% | OK |

## Plechy

| **Jméno** | **Materiál** | **Tloušťka**  [mm] | **Zatížení** | **σEd**  [MPa] | **εPl**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- |
| DM863-bfl 1 | S 235 | 16 | Vítr X+.Ss.S(5) | 45,0 | 0,0 | OK |
| DM863-tfl 1 | S 235 | 16 | Vítr X+.Ss.S(5) | 40,1 | 0,0 | OK |
| DM863-w 1 | S 235 | 10 | vlastní tíha(14) | 20,9 | 0,0 | OK |
| DM533-bfl 1 | S 355 | 12 | Vítr Y-.S.S(15) | 9,8 | 0,0 | OK |
| DM533-tfl 1 | S 355 | 12 | Vítr Y-.S.P(11) | 15,2 | 0,0 | OK |
| DM533-w 1 | S 355 | 8 | vlastní tíha(14) | 25,3 | 0,0 | OK |
| ČD1 | S 355 | 10 | Vítr Y-.S.P(11) | 30,0 | 0,0 | OK |

##### Návrhová data

| **Materiál** | **fy**  [MPa] | **εlim**  [1e-4] |
| --- | --- | --- |
| S 235 | 235,0 | 500,0 |
| S 355 | 355,0 | 500,0 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| εPl | Přetvoření |
| σEd | Srovn. napětí |

|  |  |
| --- | --- |
|  |  |

Posudek přetvoření, Vítr X+.Ss.S(5)

|  |  |
| --- | --- |
|  |  |

Srovnávací napětí, Vítr X+.Ss.S(5)

## Šrouby

|  | **Jméno** | **Zatížení** | **Ft,Ed [kN]** | **V  [kN]** | **Utt [%]** | **Uts [%]** | **Utts [%]** | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B1 | Vítr Y-.S.S(15) | 1,7 | 0,1 | 3,4 | 0,4 | 2,8 | OK |
| B2 | Vítr Y-.S.S(15) | 1,7 | 0,1 | 3,5 | 0,4 | 2,8 | OK |
| B3 | Vítr Y-.S.P(11) | 2,4 | 0,4 | 5,0 | 1,3 | 4,9 | OK |
| B4 | Vítr Y-.S.P(11) | 2,4 | 0,5 | 5,0 | 1,4 | 5,0 | OK |

## Návrhová data

| **Jméno** | **Ft,Rd**  [kN] | **Bp,Rd**  [kN] | **Fv,Rd**  [kN] | **Fb,Rd**  [kN] |
| --- | --- | --- | --- | --- |
| M12 8.8 - 1 | 48,4 | 146,1 | 32,3 | 122,4 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| Ft,Rd | Tahová únosnost šroubu podle EN 1993-1-8 tab. 3.4 |
| Ft,Ed | Tahová síla |
| Bp,Rd | Únosnost v protlačení |
| V | Výslednice smykových sil Vy, Vz ve šroubu. |
| Fv,Rd | Únosnost šroubu ve smyku EN\_1993-1-8 tabulka 3.4 |
| Fb,Rd | Únosnost plechu v otlačení podle EN 1993-1-8 tab. 3.4 |
| Fs,Rd | Návrhová únosnost v prokluzu EN 1993-1-8 tabulka 3.9 |
| Utt | Využití v tahu |
| Uts | Využití ve smyku |
| Utts | Využití v tahu a smyku EN 1993-1-8 tabulka 3.4 |

## Svary (Průměrná hodnota)

| **Položka** | **Hrana** | **Účinná tl. [mm]** | **Délka**  [mm] | **Zatížení** | **σw,Ed**  [MPa] | **σ⏊**  [MPa] | **τ||**  [MPa] | **τ⏊**  [MPa] | **Ut**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ČD1 | DM533-bfl 1 | ◢5,0◣ | 98 | Vítr Y+.S.P(7) | 5,1 | -2,2 | 0,0 | -2,6 | 1,2 | OK |
| ČD1 | DM533-tfl 1 | ◢5,0◣ | 98 | Vítr Y-.S.P(11) | 5,9 | 1,8 | 0,0 | -3,2 | 1,4 | OK |
| ČD1 | DM533-w 1 | ◢4,1◣ | 208 | vlastní tíha(14) | 15,2 | -7,6 | 0,1 | 7,6 | 3,7 | OK |

##### Návrhová data

|  | **βw**  [-] | **σw,Rd**  [MPa] | **0.9 σ**  [MPa] |
| --- | --- | --- | --- |
| S 355 | 1,00 | 408,0 | 367,2 |

##### Vysvětlení symbolů

| **Symbol** | **Vysvětlení symbolů** |
| --- | --- |
| σw,Ed | Ekvivalentní napětí |
| σw,Rd | Únosnost na srovnávací napětí |
| σ⏊ | Kolmé napětí |
| τ|| | Smykové napětí rovnoběžné s osou svaru |
| τ⏊ | Smykové napětí kolmé k ose svaru |
| 0.9 σ | Únosnost na kolmé napětí - 0.9\*fu/γM2 |
| βw | Součinitel korelace podle EN 1993-1-8 tab. 4.1 |
| Ut | Využití |

## Výkaz materiálu

## Výrobní operace

| **Jméno** | **Plechy  [mm]** | **Tvar** | **Počet** | **Svary  [mm]** | **Délka  [mm]** | **Šrouby** | **Počet** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ČD1 | P10,0x218,0-220,0 (S 355) |  | 1 | Oboustranný koutový: a = 5,0 Oboustranný koutový: a = 4,1 | 196,0 207,8 | M12 8.8 | 4 |

## Svary

| **Typ** | **Materiál** | **Tloušťka  [mm]** | **Délka  [mm]** |
| --- | --- | --- | --- |
| Oboustranný koutový | S 355 | 5,0 | 196,0 |
| Oboustranný koutový | S 355 | 4,1 | 207,8 |

## Šrouby

| **Jméno** | **Počet** |
| --- | --- |
| M12 8.8 | 4 |

# N23274

## Přípoj

| **Položka** |  |
| --- | --- |
| Jméno | N23274 |
| Popis | VÝMĚNA OKNA – PŘERUŠENÍ TEPELNÉHO MOSTU |
| Výpočet | Napětí, přetvoření/ zatížení v rovnováze |

## Nosníky a sloupy

| **Jméno** | **Průřez** | **β – Směr**  [°] | **γ - Sklon**  [°] | **α - Pootočení**  [°] | **Ofset ey**  [mm] | **Ofset ez**  [mm] |
| --- | --- | --- | --- | --- | --- | --- |
| DM5 | 87 - 80X 80X 5,0 | 90,0 | 0,0 | 0,0 | 0 | 0 |
| DM2 | 84 - 80X 80X 6,0 | -90,0 | 0,0 | 90,0 | 0 | 0 |

## Průřezy

| **Jméno** | **Materiál** |
| --- | --- |
| 87 - 80X 80X 5,0 | S 235 |
| 84 - 80X 80X 6,0 | S 355 |

## Průřezy

| **Jméno** | **Materiál** | **Obrázek** |
| --- | --- | --- |
| 87 - 80X 80X 5,0 | S 235 |  |
| 84 - 80X 80X 6,0 | S 355 |  |

## Materiál

|  |  |
| --- | --- |
| Ocel | S 235 (EN), S 355 (EN) |
| Šrouby | M12 8.8 |

## Šrouby/Kotvy

| **Jméno** | **Sestava šroubů** | **Průměr**  [mm] | **fu**  [MPa] | **Čistá plocha**  [mm2] |
| --- | --- | --- | --- | --- |
| M12 8.8 | M12 8.8 | 12 | 800,0 | 113 |

## Účinky zatížení

| **Jméno** | **Prvek** | **Poz.** | **N**  [kN] | **Vy**  [kN] | **Vz**  [kN] | **Mx**  [kNm] | **My**  [kNm] | **Mz**  [kNm] |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Vítr Y+.S.S(1) | DM5 | Konec | -3,0 | 0,4 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM2 | Konec | -3,0 | 0,0 | -0,4 | 0,0 | 0,0 | 0,0 |
| Vítr Y-.S.P(2) | DM5 | Konec | 2,3 | 0,6 | 0,0 | 0,0 | 0,0 | 0,1 |
|  | DM2 | Konec | 2,3 | 0,0 | -0,6 | 0,0 | -0,1 | 0,0 |
| Vítr X-.Sp.S(3) | DM5 | Konec | 1,0 | -0,9 | 0,0 | 0,0 | 0,0 | -0,1 |
|  | DM2 | Konec | 1,0 | 0,0 | 0,9 | 0,0 | 0,1 | 0,0 |
| Vítr Y+.S.P(4) | DM5 | Konec | -2,2 | 0,8 | 0,0 | 0,0 | 0,0 | 0,1 |
|  | DM2 | Konec | -2,2 | 0,0 | -0,8 | 0,0 | -0,1 | 0,0 |
| Vítr X-.T-.O(5) | DM5 | Konec | -0,2 | -0,1 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM2 | Konec | -0,2 | 0,0 | 0,1 | 0,0 | 0,0 | 0,0 |
| Vítr X-.T+.O(6) | DM5 | Konec | 0,0 | -0,5 | 0,0 | 0,0 | 0,0 | -0,1 |
|  | DM2 | Konec | 0,0 | 0,0 | 0,5 | 0,0 | 0,1 | 0,0 |
| vlastní tíha(7) | DM5 | Konec | 0,6 | 0,0 | 0,2 | 0,0 | 0,0 | 0,0 |
|  | DM2 | Konec | 0,6 | -0,2 | 0,0 | 0,0 | 0,0 | 0,0 |
| Vítr X+.Sp.S(8) | DM5 | Konec | 0,9 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 |
|  | DM2 | Konec | 0,9 | 0,0 | -0,1 | 0,0 | 0,0 | 0,0 |

## Výsledky

## Souhrn

| **Jméno** | **Hodnota** | **Status posudku** |
| --- | --- | --- |
| Aplikovaná zatížení | 100,0% | OK |
| Plechy | 0,1 < 5% | OK |
| Šrouby | 0,4 < 100% | OK |
| Svary | 10,9 < 100% | OK |

## Plechy

| **Jméno** | **Materiál** | **Tloušťka**  [mm] | **Zatížení** | **σEd**  [MPa] | **εPl**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- |
| DM5 | S 235 | 5 | Vítr X+.Sp.S(8) | 0,0 | 0,0 | OK |
| DM2 | S 355 | 6 | Vítr Y+.S.P(4) | 355,1 | 0,1 | OK |
| SP1 | S 355 | 10 | Vítr Y+.S.P(4) | 206,6 | 0,0 | OK |
| SP2 | S 235 | 10 | Vítr Y+.S.S(1) | 5,0 | 0,0 | OK |

##### Návrhová data

| **Materiál** | **fy**  [MPa] | **εlim**  [1e-4] |
| --- | --- | --- |
| S 235 | 235,0 | 500,0 |
| S 355 | 355,0 | 500,0 |

|  |  |
| --- | --- |
|  |  |

Posudek přetvoření, Vítr X+.Sp.S(8)

|  |  |
| --- | --- |
|  |  |

Srovnávací napětí, Vítr X+.Sp.S(8)

## Šrouby

|  | **Jméno** | **Zatížení** | **Ft,Ed [kN]** | **V  [kN]** | **Utt [%]** | **Uts [%]** | **Utts [%]** | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | B1 | Vítr Y+.S.P(4) | 0,0 | 0,1 | 0,0 | 0,3 | 0,3 | OK |
| B2 | Vítr Y+.S.S(1) | 0,0 | 0,1 | 0,0 | 0,4 | 0,4 | OK |
| B3 | Vítr Y+.S.S(1) | 0,0 | 0,1 | 0,0 | 0,2 | 0,2 | OK |
| B4 | Vítr Y+.S.S(1) | 0,0 | 0,1 | 0,0 | 0,3 | 0,3 | OK |

## Návrhová data

| **Jméno** | **Ft,Rd**  [kN] | **Bp,Rd**  [kN] | **Fv,Rd**  [kN] | **Fb,Rd**  [kN] |
| --- | --- | --- | --- | --- |
| M12 8.8 - 1 | 48,4 | 103,1 | 32,3 | 122,4 |

## Svary (Průměrná hodnota)

| **Položka** | **Hrana** | **Účinná tl. [mm]** | **Délka**  [mm] | **Zatížení** | **σw,Ed**  [MPa] | **σ⏊**  [MPa] | **τ||**  [MPa] | **τ⏊**  [MPa] | **Ut**  [%] | **Status posudku** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DM2-w 1 | SP1 | ◢6,0 | 68 | Vítr Y+.S.P(4) | 44,6 | 23,6 | -10,7 | -19,1 | 10,9 | OK |

##### Návrhová data

|  | **βw**  [-] | **σw,Rd**  [MPa] | **0.9 σ**  [MPa] |
| --- | --- | --- | --- |
| S 355 | 1,00 | 408,0 | 367,2 |

## Výkaz materiálu

## Výrobní operace

| **Jméno** | **Plechy  [mm]** | **Tvar** | **Počet** | **Svary  [mm]** | **Délka  [mm]** | **Šrouby** | **Počet** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SP1 | P10,0x180,0-80,0 (S 355) |  | 1 | Koutový: a = 6,0 | 68,0 | M12 8.8 | 4 |
| SP2 | P10,0x80,0-180,0 (S 235) |  | 1 |  |  |  |  |

## Svary

| **Typ** | **Materiál** | **Tloušťka  [mm]** | **Délka  [mm]** |
| --- | --- | --- | --- |
| Koutový | S 355 | 6,0 | 68,0 |

## Šrouby

| **Jméno** | **Počet** |
| --- | --- |
| M12 8.8 | 4 |

# Výkaz materiálu

## Šrouby

| **Jméno** | **Počet** |
| --- | --- |
| M12 8.8 | 4 |

# Nastavení normy

| **Položka** | **Hodnota** | **Jednotka** | **Článek/rovnice** |
| --- | --- | --- | --- |
| γM0 | 1,00 | - | EN 1993-1-1: 6.1 |
| γM1 | 1,00 | - | EN 1993-1-1: 6.1 |
| γM2 | 1,25 | - | EN 1993-1-1: 6.1 |
| γC | 1,50 | - | EN 1992-1-1: 2.4.2.4 |
| γInst | 1,20 | - | ETAG 001-C: 3.2.1 |
| Součnitel styčníku βj | 0,67 | - | EN 1993-1-8: 6.2.5 |
| Účinná plocha - vliv velikosti sítě | 0,10 | - |  |
| Součinitel tření | 0,25 | - | EN 1993-1-8 |
| Mezní plastické přetvoření | 0,05 | - | EN 1993-1-5 |
| Vyhodnocení napětí svarů | Průměrná hodnota |  |  |
| Konstrukční zásady | Ne |  |  |
| Vzdálenost mezi šrouby [d] | 2,20 | - | EN 1993-1-8: tab 3.3 |
| Vzdálenost mezi šrouby a hranou [d] | 1,20 | - | EN 1993-1-8: tab 3.3 |
| Pevnost vytržení betonového kužele | Ano |  | ETAG 001-C |
| Použít vypočtené αb v posudku otlačení. | Ne |  | EN 1993-1-8: tab 3.4 |

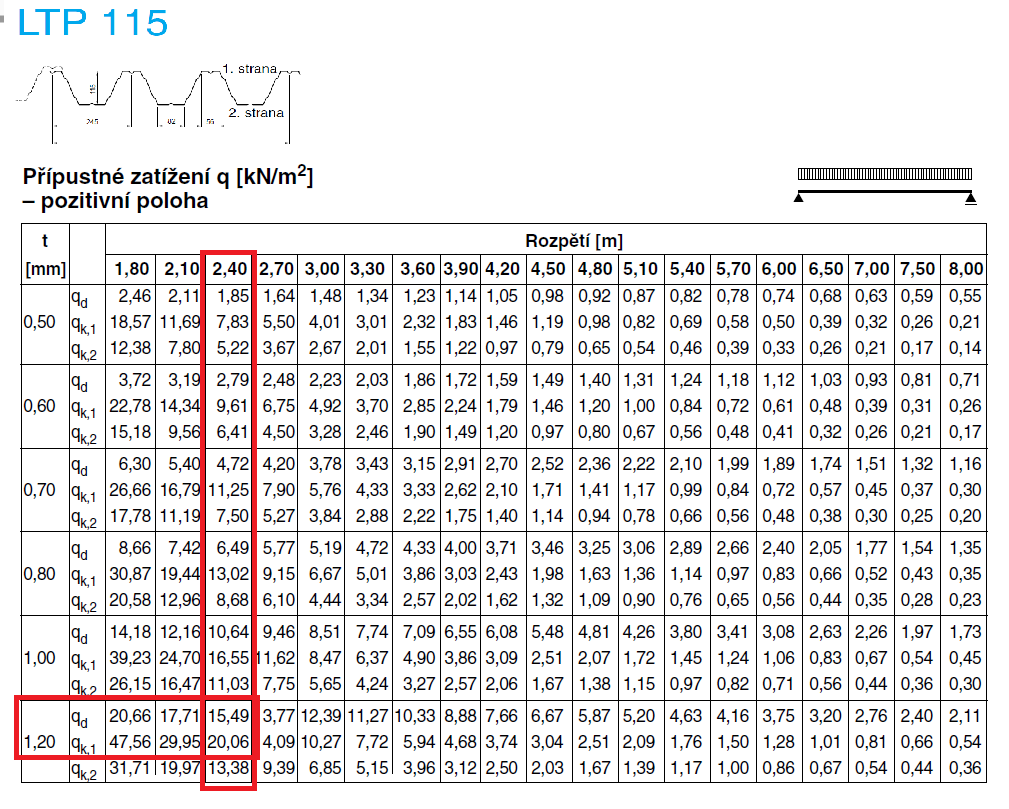
UZAVŘENÍ PROSTUPŮ STROPU NAD 1PP

Návrh nosného trapézového plechu – max. rozpětí 2,4m

Zatížení stálé podlahou 7 kN/m2 1,35 9,45 kN/m2

Zatížení proměnné užitné 4 kN/m2 1,50 6,00 kN/m2

Celkem 11 kN/m2  15,45 kN/m2

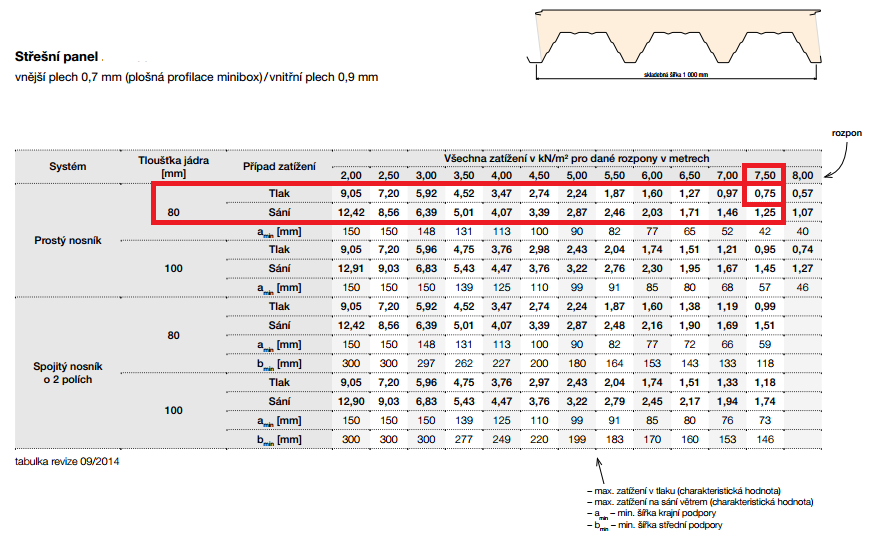


POSOUZENÍ SENDVIČOVÝCH PANELŮ ZASTŘEŠENÍ VESTAVBY

Návrh nosného panelu tl. 100mm – max. rozpětí 7,225m

Zatížení proměnné užitné kat. H 0,75 kN/m2 1,50 1,125 kN/m2

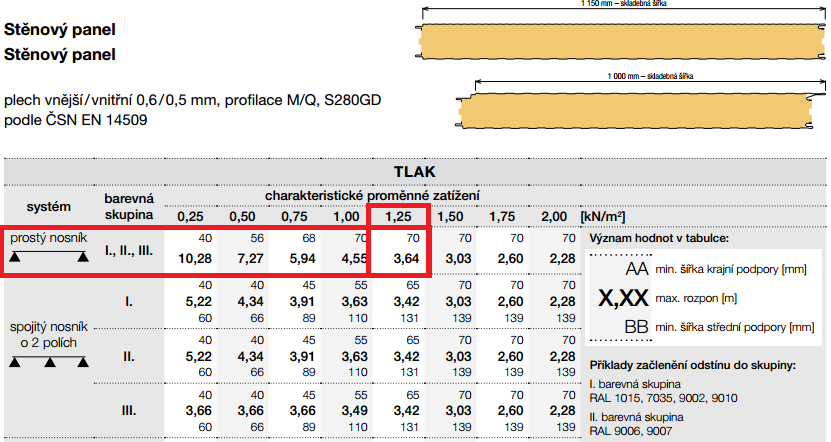
Celkem 0,75 kN/m2 1,50 1,125 kN/m2



POSOUZENÍ SENDVIČOVÝCH PANELŮ OPLÁŠTĚNÍ

Zatížení větrem 1,25 kN/m2 1,50 1,88 kN/m2

Vzdálenost podpor 3,5m



POSOUZENÍ VNITŘNÍHO NOSNÉHO ZDIVA

**1 Řez 1**

**1.1 Vstupní data**

**Průřez**

|  |  |
| --- | --- |
|  |  |
|  | | **Z D I V O ,       S T A N D A R D N Í       -       O B D É L N Í K** | | | --- | --- | | Rozměry průřezu | | | výška průřezu | h = 0,300 m | | šířka průřezu | b = 1,000 m | |

**Materiál**

Název: KERAMICKÉ BLOKY NA LEPIDLO

|  |  |  |
| --- | --- | --- |
| Pevnost v tlaku | fk | 2,05 MPa |
| Pevnost ve smyku | fvko | 0,3 MPa |
| Pevnost v tahu za ohybu okolo vodorovné osy | fxk1 | 0,15 MPa |
| Pevnost v tahu za ohybu okolo svislé osy | fxk2 | 0,15 MPa |
| Dílčí součinitel materiálu | M | 2,2 |
| Součinitel dotvarování |  | 1 |

**Vnitřní síly**

| **č.** | **Název zatěžovacího případu** | **NEd** | **VEdz** | **VEdy** | **MEdy** | **MEdz** | **Typ** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **[kN]** | **[kN]** | **[kN]** | **[kNm]** | **[kNm]** |
| 1 | Zat. případ 1 | -201,24 | 0,00 | 0,00 | 0,00 | 0,00 | Hlava |

**Podepření**

|  |  |  |
| --- | --- | --- |
| Způsob podepření: |  |  |
| Výška stěny: | 3,350m |  |
| Vzpěrná výška: | 6,700m |  |

**1.2 Výsledky**

**Mezní stav únosnosti**

Štíhlost prvku hef/tef = 22,33  27  **Vyhovuje**

| **č.** | **Název** | **NEd** | **VEdz** | **VEdy** | **MEdy** | **MEdz** | **Posouzení** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **NRd** | **VEd** | **VRd** | **MEd** | **MRd** |
| **[kN]** | **[kN]** | | **[kNm]** | |
| 1 | Zat. případ 1 | -201,24 | 0,00 | 0,00 | 0,00 | 0,00 | Vyhovuje |
| -242,27 | 0,00 | 77,50 | 0,00 | - |

**Mezní stav únosnosti - VYHOVUJE**

**Mezní stav použitelnosti**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tloušťka (nejmenší rozměr) prvku | tef | = | 0,300m |  | 0,100m |  | Vyhovuje |
| Poměr výšky a tloušťky prvku | h/tef | = | 11,167 |  | 15,000 |  | Vyhovuje |

**Mezní stav použitelnosti - VYHOVUJE**

**Celkové posouzení - Průřez VYHOVUJE**

POSOUZENÍ PATKY OPLOCENÍ

* Nově navržené oplocení z trubek bude založeno na bet. patkách – hloubka základové spáry byla stanovena na -1,75m od u.t.

**Posouzení plošného základu**

**Vstupní data**

**Základní parametry zemin**

| **Číslo** | **Název** | **Vzorek** | **ef** | **cef** | **** | **su** | **** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **[°]** | **[kPa]** | **[kN/m3]** | **[kN/m3]** | **[°]** |
| 1 | Třída F6, konzistence tuhá |  | 19,00 | 12,00 | 21,00 | 11,00 |  |

Pro výpočet tlaku v klidu jsou všechny zeminy zadány jako nesoudržné.

**Parametry zemin**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Třída F6, konzistence tuhá** | | | | |
| Objemová tíha : |  | = | 21,00 | kN/m3 |
| Úhel vnitřního tření : | ef | = | 19,00 | ° |
| Soudržnost zeminy : | cef | = | 12,00 | kPa |
| Edometrický modul : | Eoed | = | 9,50 | MPa |
| Koef. strukturní pevnosti : | m | = | 0,10 |  |
| Obj.tíha sat.zeminy : | sat | = | 21,00 | kN/m3 |

**Založení**

**Typ základu: centrická patka**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hloubka založení | hz | = | 1,75 | m |
| Hloubka upraveného terénu | d | = | 1,75 | m |
| Tloušťka základu | t | = | 1,50 | m |
| Sklon upraveného terénu | s1 | = | 0,00 | ° |
| Sklon základové spáry | s2 | = | 0,00 | ° |

Objemová tíha zeminy nad základem = 20,00 kN/m3

**Geometrie konstrukce**

**Typ základu: centrická patka**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Délka patky | x | = | 0,60 | m |
| Šířka patky | y | = | 0,60 | m |
| Šířka sloupu ve směru x | cx | = | 0,10 | m |
| Šířka sloupu ve směru y | cy | = | 0,10 | m |
| Objem patky |  | = | 0,54 | m3 |

**Materiál konstrukce**

Objemová tíha  = 23,00 kN/m3

Výpočet betonových konstrukcí proveden podle normy EN 1992 1-1 (EC2).

Beton : C 20/25

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Válcová pevnost v tlaku | fck | = | 20,00 | MPa |
| Pevnost v tahu | fct | = | 2,20 | MPa |
| Modul pružnosti | Ecm | = | 30000,00 | MPa |

Ocel podélná : B500

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mez kluzu | fyk | = | 500,00 | MPa |
| Modul pružnosti | E | = | 200000,00 | MPa |

Ocel příčná: B500

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mez kluzu | fyk | = | 500,00 | MPa |
| Modul pružnosti | E | = | 200000,00 | MPa |

**Geologický profil a přiřazení zemin**

| **Číslo** | **Vrstva** | **Přiřazená zemina** | **Vzorek** |
| --- | --- | --- | --- |
| **[m]** |
| 1 | - | Třída F6, konzistence tuhá |  |

**Zatížení**

| **Číslo** | **Zatížení** | | **Název** | **Typ** | **N** | **Mx** | **My** | **Hx** | **Hy** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **nové** | **změna** | **[kN]** | **[kNm]** | **[kNm]** | **[kN]** | **[kN]** |
| 1 | ANO |  | Zatížení č. 1 | Návrhové | 0,24 | 0,00 | 0,20 | -2,00 | 0,00 |

**Nastavení výpočtu**

Typ výpočtu - Výpočet pro odvodněné podmínky

Výpočet svislé únosnosti - ČSN 73 1001

Výpočet sednutí - Výpočet pomocí oedometrického modulu (ČSN 73 1001)

Omezení deformační zóny - pomocí strukturní pevnosti

Metodika posouzení : výpočet podle EN 1997

Zadání koeficientů : Standard

Návrhový přístup : 2 - redukce zatížení a odporu

Návrhová situace : trvalá

| **Součinitelé redukce zatížení (F)** | **Souč.** | **Nepříznivé** | | **Příznivé** |
| --- | --- | --- | --- | --- |
| **[–]** | | **[–]** |
| Stálé zatížení | G | 1,35 | | 1,00 |
| **Součinitelé redukce odporu (R)** | | | **Souč.** | **[–]** |
|
| Součinitel redukce svislé únosnosti | | | Rvs | 1,40 |
| Součinitel redukce vodorovné únosnosti | | | Rhs | 1,10 |

**Posouzení čís. 1**

**Posouzení zatěžovacích stavů**

| **Název** | **Vl. tíha** | **ex** | **ey** | **** | **Rd** | **Využití** | **Vyhovuje** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **příznivě** | **[m]** | **[m]** | **[kPa]** | **[kPa]** | **[%]** |
| Zatížení č. 1 | Ano | -0,22 | 0,00 | 154,09 | 280,99 | 54,84 | Ano |
| Zatížení č. 1 | Ne | -0,17 | 0,00 | 119,75 | 303,16 | 39,50 | Ano |

Výpočet proveden s automatickým výběrem nejnepříznivějších zatěžovacích stavů.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Spočtená vlastní tíha patky | G | = | 12,42 | kN |
| Spočtená tíha nadloží | Z | = | 1,75 | kN |

**Posouzení svislé únosnosti**

Tvar kontaktního napětí : obdélník

Nejnepříznivější zatěžovací stav číslo 1. (Zatížení č. 1)

Parametry smykové plochy pod základem:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hloubka smykové plochy | zsp | = | | 0,68 | | m | |
| Dosah smykové plochy | lsp | = | | 1,75 | | m | |
| Výpočtová únosnost zákl. půdy | | | Rd | | = | | 280,99 | | kPa |
| Extrémní kontaktní napětí | | |  | | = | | 154,09 | | kPa |

**Svislá únosnost VYHOVUJE**

**Posouzení vodorovné únosnosti**

Nejnepříznivější zatěžovací stav číslo 1. (Zatížení č. 1)

Zemní odpor: klidový

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Výpočtová velikost zemního odporu | | | Spd | | = | 12,75 | | | kN |
| Úhel tření základ-základová spára | | |  | | = | 19,00 | | | ° |
| Soudržnost základ-základová spára | | | a | | = | 12,00 | | | kPa |
| Horizontální únosnost základu | Rdh | = | | 16,10 | | | kN |
| Extrémní horizontální síla | H | = | | 2,00 | | | kN |

**Vodorovná únosnost VYHOVUJE**

**Únosnost základu VYHOVUJE**

***ZÁVĚR***

Veškeré posuzované konstrukce vyhovují při splnění vstupních podmínek na oba mezní stavy. Statický výpočet obsahuje 55 stran a je vyhotoven v šesti stejnopisech.

Ve Rychnově nad Kněžnou 10. 1. 2017

Ing J. Viesner