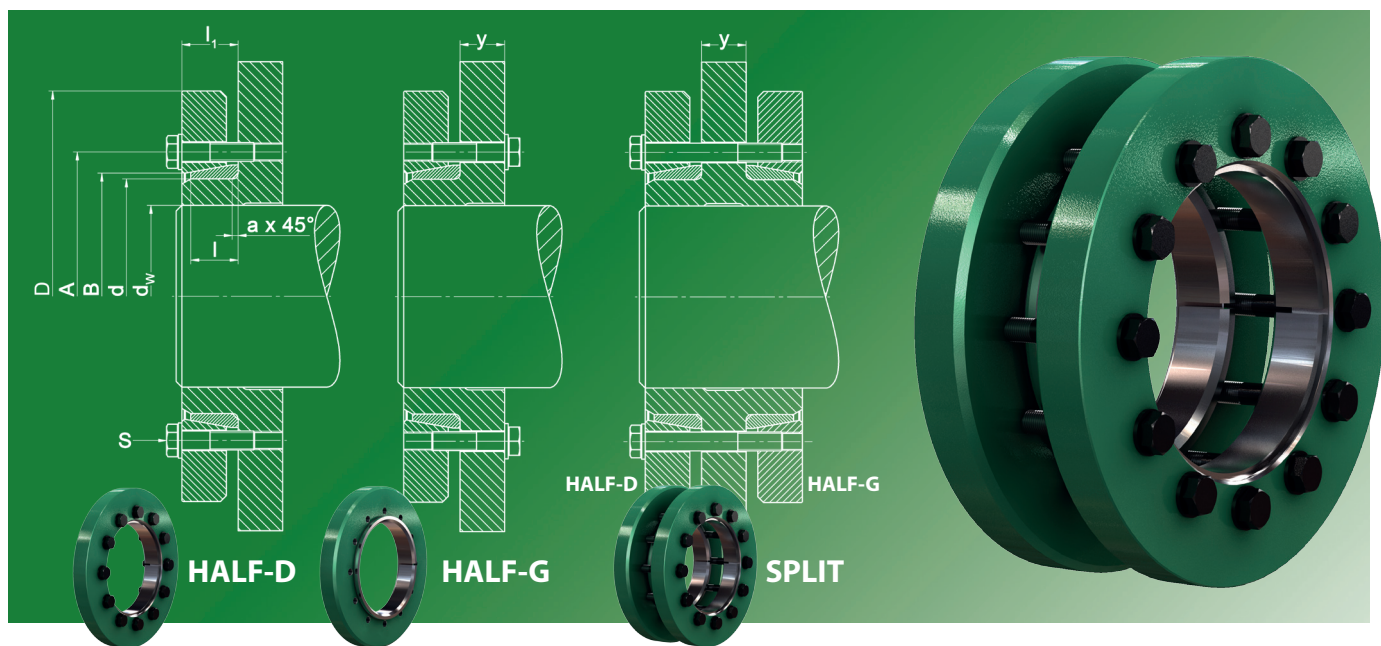


# 3071 HALF / SPLIT Standard-Range



## Used symbols

|           |                      |                                          |
|-----------|----------------------|------------------------------------------|
| $d$       | [mm]                 | Nominal diameter of the shrink disc      |
| $d_w$     | [mm]                 | Shaft diameter                           |
| $M_{max}$ | [mm]                 | Maximal transmittable torque             |
| $D$       | [mm]                 | Outer diameter                           |
| $l$       | [mm]                 | Length of the inner ring                 |
| $a$       | [mm]                 | Width of the chamfer on the inner ring   |
| $l_1$     | [mm]                 | Width of the shrink disc                 |
| $A$       | [mm]                 | Pitch circle diameter                    |
| $B$       | [mm]                 | Attachment size                          |
| $M_A$     | [Nm]                 | Tightening torque of the clamping screws |
| $Z$       |                      | Number of clamping screws                |
| $S$       |                      | Size of the clamping screws              |
| $n_{max}$ | [min <sup>-1</sup> ] | Permitted rotational frequency           |
| $p_N$     | [N/mm <sup>2</sup> ] | Moderate pressure to the hub             |
| $I$       | [kgm <sup>2</sup> ]  | Moment of inertia                        |

## Design of the shrink disc

$d < 115$  - Discs galvanized - without washers

$d \geq 115$  - Discs painted - with washers

Dimensions **H** & **e** in unlocked position

Deviation from the standard shaft diameter  $d_w$   
see the table „3071 Standard-Range“  
and „Calculation of transmissible torques and forces“

Hexagon head bolts are used as standard.

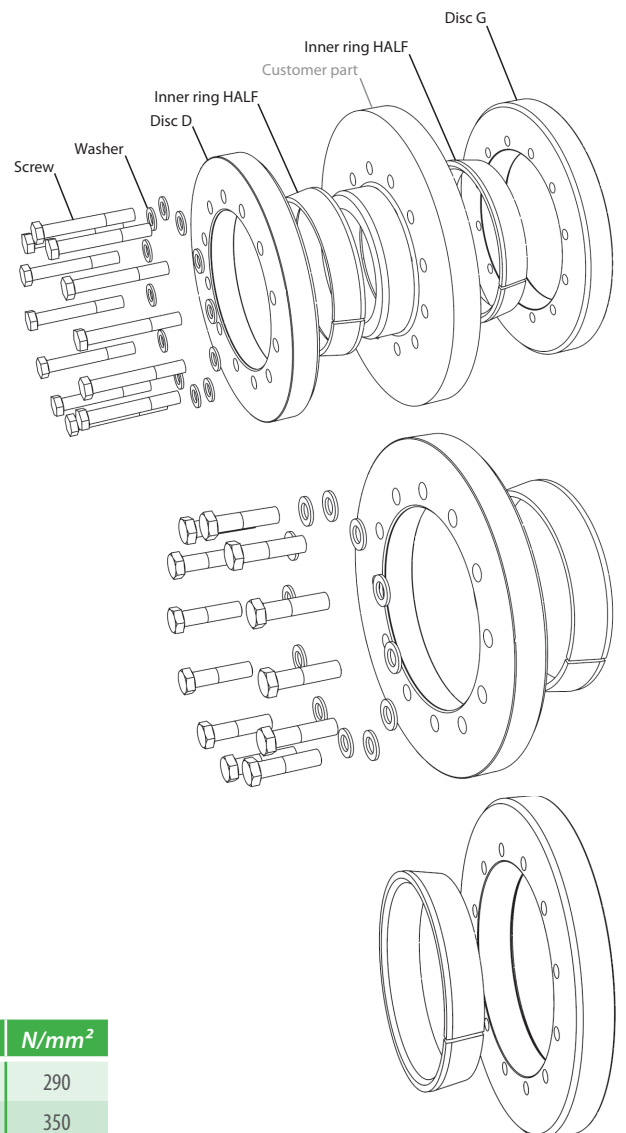
Upon request we provide all sized shrink discs with hexagon socket head bolts (Inbus). (See ordering information)

For **Typ** in ordering information:

**GET** means **SPLIT**

**HALB** means **HALF**

| min. yield strength $R_{p0.2}$ | N/mm <sup>2</sup> |
|--------------------------------|-------------------|
| Solid shaft                    | 290               |
| Hub                            | 350               |



Ordering information: **TAS 3071Type - d - y** (e.g.: TAS 3071GET-200-Y60 or TAS 3071HALB-G-200-Y30 or TAS 3071HALB-D-200)

with Inbus: **TAS 3071Type - d - y - Inbus** (e.g.: TAS 3071GET-200-Y60-Inbus etc.)

(Further sizes on request)

# 3071 HALF / SPLIT Standard-Range

## Please note:

All values refer to shrink disk design **HALF**!

Please provide us the dimension of „y“ or the length of screws. Otherwise we can not provide appropriate screws!  
(see ordering information)

Applies to shrink disk design **HALF-G**:

- The required screw length is:  $\text{Screw length (3071 Standard-Range)} - l_1 + 2 a + y$  (rounded up to standard lengths)

Applies to shrink disk design **SPLIT**:

- The design consists of 1x **HALF-D** + 1x **HALF-G**
- Delivery is possible with or without screws
- Maximum transmittable torque:  $M_{ges} = 2 M_{max}$
- The required screw length:  $\text{Screw length (3071 Standard-Range)} + 2 a + y$  (rounded up to standard lengths)

|     |                |                  |     |      |     |                |     |     |                |     | HALF-D only    |           |     |       |                   |                   |                  |        |
|-----|----------------|------------------|-----|------|-----|----------------|-----|-----|----------------|-----|----------------|-----------|-----|-------|-------------------|-------------------|------------------|--------|
| d   | d <sub>w</sub> | M <sub>max</sub> | D   | l    | a   | l <sub>1</sub> | A   | B   | M <sub>A</sub> | Z   | d <sub>B</sub> | S         | DIN | Class | n <sub>max</sub>  | p <sub>N</sub>    | I                | Weight |
| mm  | mm             | Nm               | mm  | mm   | mm  | mm             | mm  | mm  | Nm             | Stk | mm             |           |     |       | min <sup>-1</sup> | N/mm <sup>2</sup> | kgm <sup>2</sup> | kg     |
| 14  | 11             | 14               | 37  | 6    | 1,5 | 7,5            | 24  | 15  | 3              | 3   | 4,5            | M 4 x 12  | 933 | 10.9  | 15400             | 257               | 0,0000078        | 0,04   |
| 16  | 13             | 39               | 41  | 7,5  | 1,5 | 9              | 27  | 17  | 6              | 3   | 5,5            | M 5 x 14  | 933 | 10.9  | 13900             | 282               | 0,0000121        | 0,05   |
| 18  | 15             | 59               | 43  | 7,5  | 1,5 | 9              | 29  | 19  | 4,8            | 4   | 5,5            | M 5 x 14  | 933 | 8.8   | 13300             | 285               | 0,0000163        | 0,06   |
| 20  | 17             | 110              | 48  | 8,5  | 1,5 | 11,25          | 34  | 24  | 6              | 5   | 5,5            | M 5 x 18  | 933 | 10.9  | 11900             | 322               | 0,0000304        | 0,09   |
| 21  | 18             | 120              | 48  | 8,5  | 1,5 | 11,25          | 34  | 24  | 6              | 5   | 5,5            | M 5 x 18  | 933 | 10.9  | 11900             | 307               | 0,0000309        | 0,09   |
| 22  | 19             | 120              | 48  | 8,5  | 1,5 | 11,25          | 36  | 26  | 6              | 5   | 5,5            | M 5 x 18  | 933 | 10.9  | 11900             | 293               | 0,0000314        | 0,09   |
| 24  | 20             | 150              | 50  | 9    | 2   | 11,5           | 36  | 26  | 6              | 6   | 5,5            | M 5 x 18  | 933 | 10.9  | 11400             | 322               | 0,0000366        | 0,09   |
| 30  | 25             | 180              | 60  | 10   | 2   | 12,75          | 44  | 32  | 6              | 6   | 5,5            | M 5 x 18  | 931 | 10.9  | 9500              | 225               | 0,0000844        | 0,15   |
| 36  | 30             | 320              | 72  | 11   | 2   | 13,75          | 52  | 38  | 12             | 5   | 6,6            | M 6 x 20  | 933 | 10.9  | 7900              | 231               | 0,0001944        | 0,24   |
| 38  | 31             | 450              | 80  | 12   | 2   | 15             | 56  | 41  | 12             | 7   | 6,6            | M 6 x 22  | 933 | 10.9  | 7100              | 275               | 0,0003334        | 0,34   |
| 40  | 32             | 370              | 75  | 11,5 | 2   | 14,25          | 57  | 43  | 12             | 6   | 6,6            | M 6 x 20  | 933 | 10.9  | 7600              | 236               | 0,0002438        | 0,27   |
| 41  | 33             | 470              | 80  | 12   | 2   | 14,75          | 61  | 46  | 12             | 7   | 6,6            | M 6 x 22  | 933 | 10.9  | 7100              | 255               | 0,0003232        | 0,32   |
| 44  | 35             | 480              | 80  | 12   | 2   | 14,75          | 61  | 47  | 12             | 7   | 6,6            | M 6 x 22  | 933 | 10.9  | 7100              | 238               | 0,0003126        | 0,30   |
| 50  | 40             | 640              | 90  | 13   | 2   | 16             | 70  | 53  | 12             | 8   | 6,6            | M 6 x 25  | 933 | 10.9  | 6300              | 217               | 0,0005432        | 0,41   |
| 55  | 45             | 750              | 100 | 14   | 2,5 | 17,75          | 75  | 58  | 12             | 8   | 6,6            | M 6 x 25  | 933 | 10.9  | 5700              | 189               | 0,0009118        | 0,56   |
| 62  | 50             | 1000             | 110 | 14   | 2,5 | 17,75          | 86  | 66  | 12             | 10  | 6,6            | M 6 x 25  | 933 | 10.9  | 5200              | 210               | 0,0013154        | 0,66   |
| 68  | 55             | 1100             | 115 | 14   | 2,5 | 17,75          | 86  | 72  | 12             | 10  | 6,6            | M 6 x 25  | 933 | 10.9  | 4900              | 191               | 0,0015395        | 0,69   |
| 75  | 60             | 1800             | 138 | 16,5 | 4   | 20,25          | 100 | 79  | 30             | 7   | 9              | M 8 x 30  | 933 | 10.9  | 4100              | 233               | 0,0037004        | 1,2    |
| 80  | 65             | 2000             | 145 | 16,5 | 4   | 20,25          | 100 | 84  | 30             | 7   | 9              | M 8 x 30  | 933 | 10.9  | 3900              | 218               | 0,0044566        | 1,3    |
| 90  | 70             | 3000             | 155 | 20   | 5   | 24,5           | 114 | 94  | 30             | 10  | 9              | M 8 x 35  | 931 | 10.9  | 3600              | 231               | 0,0068266        | 1,7    |
| 100 | 75             | 3600             | 170 | 22   | 5   | 27             | 124 | 104 | 30             | 12  | 9              | M 8 x 35  | 931 | 10.9  | 3300              | 220               | 0,0106975        | 2,2    |
| 110 | 80             | 4400             | 185 | 24,5 | 5   | 30             | 136 | 114 | 59             | 9   | 11             | M 10 x 40 | 931 | 10.9  | 3000              | 208               | 0,0173719        | 3,0    |
| 115 | 80             | 4600             | 200 | 25   | 5   | 30             | 150 | 124 | 59             | 10  | 11             | M 10 x 40 | 931 | 10.9  | 2800              | 215               | 0,0239512        | 3,6    |
| 120 | 85             | 4800             | 200 | 25   | 5   | 30             | 150 | 124 | 59             | 10  | 11             | M 10 x 40 | 931 | 10.9  | 2800              | 206               | 0,0238000        | 3,5    |
| 125 | 90             | 6500             | 215 | 26   | 5   | 32             | 160 | 134 | 59             | 12  | 11             | M 10 x 45 | 931 | 10.9  | 2600              | 226               | 0,0332444        | 4,3    |
| 140 | 100            | 8900             | 230 | 28   | 5   | 35,25          | 175 | 146 | 100            | 10  | 13,5           | M 12 x 50 | 931 | 10.9  | 2400              | 224               | 0,0480312        | 5,3    |
| 155 | 110            | 11900            | 265 | 30   | 5   | 37,25          | 192 | 165 | 100            | 12  | 13,5           | M 12 x 50 | 931 | 10.9  | 2100              | 224               | 0,0942500        | 8,0    |
| 165 | 120            | 19300            | 290 | 33   | 5   | 40,5           | 210 | 175 | 250            | 8   | 17,5           | M 16 x 55 | 931 | 10.9  | 1900              | 258               | 0,1530719        | 11     |
| 175 | 130            | 21300            | 300 | 33   | 5   | 40,5           | 220 | 185 | 250            | 8   | 17,5           | M 16 x 55 | 931 | 10.9  | 1900              | 243               | 0,1658594        | 11     |
| 185 | 140            | 29500            | 330 | 40,5 | 5   | 48             | 236 | 195 | 250            | 10  | 17,5           | M 16 x 70 | 931 | 10.9  | 1700              | 227               | 0,3220312        | 18     |

# 3071 HALF / SPLIT Standard-Range

|                |                            |                              |                |                |                |                            |                |                |                            |                 | HALF-D only                |            |            |              |                                             |                                           |                              |                     |
|----------------|----------------------------|------------------------------|----------------|----------------|----------------|----------------------------|----------------|----------------|----------------------------|-----------------|----------------------------|------------|------------|--------------|---------------------------------------------|-------------------------------------------|------------------------------|---------------------|
| <i>d</i><br>mm | <i>d<sub>w</sub></i><br>mm | <i>M<sub>max</sub></i><br>Nm | <i>D</i><br>mm | <i>I</i><br>mm | <i>a</i><br>mm | <i>I<sub>1</sub></i><br>mm | <i>A</i><br>mm | <i>B</i><br>mm | <i>M<sub>A</sub></i><br>Nm | <i>Z</i><br>Stk | <i>d<sub>B</sub></i><br>mm | <i>S</i>   | <i>DIN</i> | <i>Class</i> | <i>n<sub>max</sub></i><br>min <sup>-1</sup> | <i>p<sub>N</sub></i><br>N/mm <sup>2</sup> | <i>I</i><br>kgm <sup>2</sup> | <i>Weight</i><br>kg |
| 195            | 150                        | 39700                        | 350            | 40,5           | 5              | 48                         | 246            | 210            | 250                        | 12              | 17,5                       | M 16 x 70  | 931        | 10.9         | 1600                                        | 258                                       | 0,4013125                    | 20                  |
| 200            | 155                        | 40800                        | 350            | 40,5           | 5              | 48                         | 246            | 210            | 250                        | 12              | 17,5                       | M 16 x 70  | 931        | 10.9         | 1600                                        | 252                                       | 0,3859375                    | 19                  |
| 220            | 165                        | 51800                        | 370            | 52             | 8              | 60                         | 270            | 230            | 250                        | 15              | 17,5                       | M 16 x 80  | 931        | 10.9         | 1500                                        | 231                                       | 0,6022250                    | 26                  |
| 240            | 180                        | 72400                        | 405            | 54             | 8              | 62,5                       | 295            | 248            | 490                        | 12              | 22                         | M 20 x 90  | 931        | 10.9         | 1400                                        | 254                                       | 0,8865000                    | 32                  |
| 245            | 185                        | 73900                        | 410            | 55,5           | 8              | 63,5                       | 298            | 251            | 490                        | 12              | 22                         | M 20 x 90  | 931        | 10.9         | 1300                                        | 241                                       | 0,9410156                    | 33                  |
| 260            | 190                        | 85300                        | 440            | 59,5           | 8              | 68                         | 321            | 268            | 490                        | 14              | 22                         | M 20 x 90  | 931        | 10.9         | 1300                                        | 244                                       | 1,3713                       | 42                  |
| 280            | 210                        | 112000                       | 460            | 67             | 10             | 77                         | 346            | 288            | 490                        | 16              | 22                         | M 20 x 100 | 931        | 10.9         | 1200                                        | 234                                       | 1,7762                       | 49                  |
| 300            | 230                        | 143000                       | 485            | 71             | 10             | 81                         | 364            | 308            | 490                        | 18              | 22                         | M 20 x 100 | 931        | 10.9         | 1100                                        | 230                                       | 2,3172                       | 57                  |
| 320            | 240                        | 163000                       | 520            | 71             | 10             | 81                         | 386            | 328            | 490                        | 20              | 22                         | M 20 x 100 | 931        | 10.9         | 1100                                        | 239                                       | 3,0756                       | 66                  |
| 340            | 250                        | 163000                       | 570            | 77             | 10             | 88                         | 408            | 348            | 490                        | 20              | 22                         | M 20 x 110 | 931        | 10.9         | 1000                                        | 205                                       | 5,0658                       | 92                  |
| 350            | 270                        | 228000                       | 580            | 80             | 10             | 91                         | 432            | 358            | 490                        | 24              | 22                         | M 20 x 110 | 931        | 10.9         | 980                                         | 229                                       | 5,5068                       | 96                  |
| 360            | 290                        | 259000                       | 590            | 80             | 10             | 91                         | 432            | 368            | 490                        | 24              | 22                         | M 20 x 110 | 931        | 10.9         | 970                                         | 222                                       | 5,8518                       | 98                  |
| 380            | 300                        | 317000                       | 645            | 85             | 13             | 97                         | 458            | 387            | 840                        | 20              | 26                         | M 24 x 120 | 931        | 10.9         | 880                                         | 245                                       | 8,8967                       | 127                 |
| 390            | 310                        | 348000                       | 660            | 85             | 13             | 97                         | 468            | 397            | 840                        | 21              | 26                         | M 24 x 120 | 931        | 10.9         | 860                                         | 251                                       | 9,7705                       | 133                 |
| 400            | 320                        | 361000                       | 680            | 85             | 13             | 97                         | 480            | 407            | 840                        | 21              | 26                         | M 24 x 120 | 931        | 10.9         | 840                                         | 245                                       | 11,05                        | 142                 |
| 420            | 340                        | 445000                       | 690            | 95             | 13             | 107                        | 504            | 427            | 840                        | 24              | 26                         | M 24 x 130 | 931        | 10.9         | 830                                         | 234                                       | 12,97                        | 159                 |
| 440            | 350                        | 445000                       | 750            | 101,5          | 13             | 114                        | 527            | 447            | 840                        | 24              | 26                         | M 24 x 140 | 931        | 10.9         | 760                                         | 207                                       | 19,56                        | 207                 |
| 460            | 370                        | 478000                       | 770            | 101,5          | 13             | 114                        | 547            | 468            | 840                        | 24              | 26                         | M 24 x 140 | 931        | 10.9         | 740                                         | 198                                       | 21,52                        | 214                 |
| 480            | 390                        | 599000                       | 800            | 109            | 15             | 121,5                      | 570            | 488            | 840                        | 28              | 26                         | M 24 x 150 | 931        | 10.9         | 710                                         | 208                                       | 26,44                        | 243                 |
| 500            | 410                        | 715000                       | 850            | 109            | 15             | 121,5                      | 590            | 508            | 1250                       | 24              | 30                         | M 27 x 150 | 931        | 10.9         | 670                                         | 225                                       | 34,04                        | 280                 |
| 530            | 440                        | 980000                       | 900            | 122,5          | 15             | 135                        | 620            | 538            | 1250                       | 30              | 30                         | M 27 x 170 | 931        | 10.9         | 630                                         | 232                                       | 46,77                        | 343                 |
| 560            | 460                        | 1082000                      | 950            | 122,5          | 15             | 135                        | 650            | 568            | 1250                       | 32              | 30                         | M 27 x 170 | 931        | 10.9         | 600                                         | 234                                       | 58,07                        | 382                 |
| 590            | 480                        | 1257000                      | 980            | 132,5          | 15             | 147,5                      | 685            | 600            | 1250                       | 36              | 30                         | M 27 x 180 | 931        | 10.9         | 580                                         | 229                                       | 71,15                        | 435                 |
| 620            | 510                        | 1428000                      | 1020           | 132,5          | 15             | 147,5                      | 715            | 630            | 1250                       | 38              | 30                         | M 27 x 180 | 931        | 10.9         | 560                                         | 230                                       | 82,99                        | 466                 |
| 660            | 540                        | 1838000                      | 1100           | 145            | 15             | 160                        | 760            | 670            | 1700                       | 38              | 33                         | M 30 x 200 | 931        | 10.9         | 520                                         | 238                                       | 123                          | 598                 |
| 700            | 580                        | 2116000                      | 1200           | 145            | 15             | 160                        | 800            | 710            | 1700                       | 40              | 33                         | M 30 x 200 | 931        | 10.9         | 470                                         | 236                                       | 177                          | 733                 |
| 720            | 600                        | 2319000                      | 1230           | 145            | 15             | 160                        | 820            | 730            | 1700                       | 42              | 33                         | M 30 x 200 | 931        | 10.9         | 460                                         | 241                                       | 195                          | 767                 |
| 750            | 620                        | 2483000                      | 1230           | 155            | 15             | 172,5                      | 855            | 762            | 1700                       | 44              | 33                         | M 30 x 220 | 931        | 10.9         | 460                                         | 225                                       | 210                          | 810                 |
| 800            | 660                        | 2750000                      | 1310           | 155            | 15             | 172,5                      | 905            | 812            | 1700                       | 46              | 33                         | M 30 x 220 | 931        | 10.9         | 430                                         | 220                                       | 270                          | 917                 |
| 850            | 700                        | 3161000                      | 1330           | 170            | 15             | 187,5                      | 965            | 862            | 1700                       | 50              | 33                         | M 30 x 230 | 931        | 10.9         | 430                                         | 204                                       | 302                          | 969                 |
| 900            | 740                        | 3475000                      | 1400           | 170            | 15             | 187,5                      | 1015           | 912            | 1700                       | 52              | 33                         | M 30 x 230 | 931        | 10.9         | 400                                         | 200                                       | 369                          | 1065                |
| 950            | 780                        | 4210000                      | 1550           | 185            | 15             | 205                        | 1075           | 962            | 2800                       | 42              | 39                         | M 36 x 250 | 931        | 10.9         | 370                                         | 199                                       | 643                          | 1556                |
| 1000           | 820                        | 5281000                      | 1620           | 185            | 15             | 205                        | 1125           | 1012           | 2800                       | 50              | 39                         | M 36 x 250 | 931        | 10.9         | 350                                         | 225                                       | 763                          | 1685                |