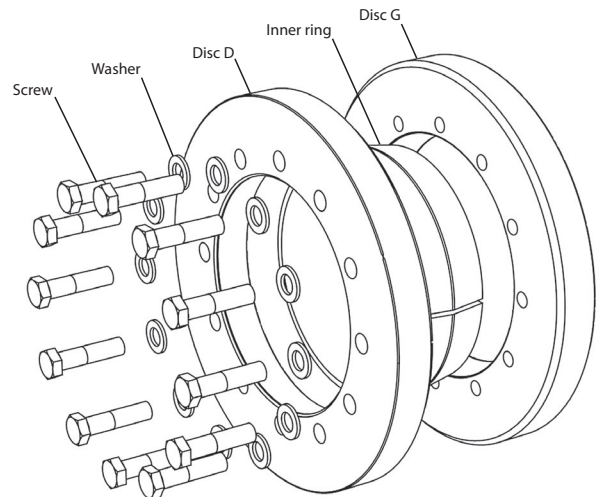


### Used symbols

|           |                      |  |
|-----------|----------------------|--|
| $d$       | [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                 |
| $e$       | [mm]                 | Excess length                            |
| $H$       | [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

$d \geq 110$  - Discs painted - with washers

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

Hexagon head bolts are used as standard.

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

### Variation from the standard shaft diameter $d_w$

| > mm | ≤ mm | minimal - mm | maximal + mm |
|------|------|--------------|--------------|
| 10   | 30   | -1           | 1            |
| 30   | 50   | -3           | 2            |
| 50   | 140  | -5           | 5            |
| 140  | 180  | -10          | 5            |
| 180  | 320  | -15          | 10           |
| 320  | 500  | -20          | 10           |
| 500  | 700  | -30          | 20           |
| 700  | 820  | -40          | 20           |

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

$$M = M_{max(Catalog)} \left( \frac{d_w(target)}{d_w(Catalog)} \right)^2$$

(see Basics - Calculation)

Ordering information: TAS 3071 -  $d$  (e.g.: TAS 3071-200 ... further sizes on request)  
with Inbus: TAS 3071 -  $d$  - Inbus (e.g.: TAS 3071-200-Inbus)

# 3071 Standard-Range

| <b>d</b><br>mm | <b>d<sub>w</sub></b><br>mm | <b>M<sub>max</sub></b><br>Nm | <b>D</b><br>mm | <b>l</b><br>mm | <b>e</b><br>mm | <b>H</b><br>mm | <b>A</b><br>mm | <b>B</b><br>mm | <b>M<sub>A</sub></b><br>Nm | <b>Z</b><br>Stk | <b>S</b>   | <b>DIN</b> | <b>Class</b> | <b>n<sub>max</sub></b><br>min <sup>-1</sup> | <b>p<sub>N</sub></b><br>N/mm <sup>2</sup> | <b>I</b><br>kgm <sup>2</sup> | <b>Weight</b><br>kg |
|----------------|----------------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|-----------------|------------|------------|--------------|---|---|------------------------------|---------------------|
| 14             | 11                         | 27                           | 37             | 9              | 1,5            | 12             | 24             | 15             | 2,4                        | 3               | M 4 x 10   | 933        | 8.8          | 15400                                       | 254                                       | 0,000137                     | 0,07                |
| 16             | 13                         | 59                           | 41             | 12             | 1,5            | 15             | 27             | 17             | 4,8                        | 3               | M 5 x 12   | 933        | 8.8          | 13900                                       | 240                                       | 0,000266                     | 0,11                |
| 18             | 15                         | 110                          | 43             | 12             | 1,5            | 15             | 29             | 19             | 4,8                        | 4               | M 5 x 12   | 933        | 8.8          | 13300                                       | 285                                       | 0,000326                     | 0,12                |
| 20             | 17                         | 220                          | 48             | 14             | 2,75           | 19,5           | 34             | 24             | 6                          | 5               | M 5 x 18   | 933        | 10.9         | 11900                                       | 322                                       | 0,000642                     | 0,19                |
| 21             | 18                         | 240                          | 48             | 14             | 2,75           | 19,5           | 34             | 24             | 6                          | 5               | M 5 x 18   | 933        | 10.9         | 11900                                       | 307                                       | 0,000618                     | 0,18                |
| 22             | 19                         | 250                          | 48             | 14             | 2,75           | 19,5           | 36             | 26             | 6                          | 5               | M 5 x 18   | 933        | 10.9         | 11900                                       | 293                                       | 0,000627                     | 0,18                |
| 24             | 20                         | 300                          | 50             | 14             | 2,5            | 19             | 36             | 26             | 6                          | 6               | M 5 x 18   | 933        | 10.9         | 11400                                       | 322                                       | 0,000731                     | 0,19                |
| 30             | 25                         | 360                          | 60             | 16             | 2,75           | 21,5           | 44             | 32             | 6                          | 6               | M 5 x 18   | 931        | 10.9         | 9500  | 225                                       | 0,001687                     | 0,30                |
| 36             | 30                         | 640                          | 72             | 18             | 2,75           | 23,5           | 52             | 38             | 12                         | 5               | M 6 x 20   | 933        | 10.9         | 7900  | 231                                       | 0,003888                     | 0,48                |
| 38             | 31                         | 910                          | 80             | 20             | 3              | 26             | 56             | 41             | 12                         | 7               | M 6 x 25   | 933        | 10.9         | 7100  | 275                                       | 0,006569                     | 0,67                |
| 40             | 32                         | 740                          | 75             | 19             | 2,75           | 24,5           | 57             | 43             | 12                         | 6               | M 6 x 20   | 933        | 10.9         | 7600  | 236                                       | 0,004967                     | 0,55                |
| 41             | 33                         | 940                          | 80             | 20             | 2,75           | 25,5           | 61             | 46             | 12                         | 7               | M 6 x 20   | 933        | 10.9         | 7100  | 255                                       | 0,006465                     | 0,64                |
| 44             | 35                         | 970                          | 80             | 20             | 2,75           | 25,5           | 61             | 47             | 12                         | 7               | M 6 x 20   | 933        | 10.9         | 7100  | 238                                       | 0,006356                     | 0,61                |
| 50             | 40                         | 1200                         | 90             | 22             | 3              | 28             | 70             | 53             | 12                         | 8               | M 6 x 25   | 933        | 10.9         | 6300  | 217                                       | 0,010998                     | 0,83                |
| 55             | 45                         | 1500                         | 100            | 23             | 3,75           | 30,5           | 75             | 58             | 12                         | 8               | M 6 x 25   | 933        | 10.9         | 5700  | 189                                       | 0,017909                     | 1,1                 |
| 62             | 50                         | 2100                         | 110            | 23             | 3,75           | 30,5           | 86             | 66             | 12                         | 10              | M 6 x 25   | 933        | 10.9         | 5200  | 210                                       | 0,025909                     | 1,3                 |
| 68             | 55                         | 2200                         | 115            | 23             | 3,75           | 30,5           | 86             | 72             | 12                         | 10              | M 6 x 25   | 933        | 10.9         | 4900  | 191                                       | 0,031236                     | 1,4                 |
| 75             | 60                         | 3600                         | 138            | 25             | 3,75           | 32,5           | 100            | 79             | 30                         | 7               | M 8 x 30   | 933        | 10.9         | 4100  | 233                                       | 0,070923                     | 2,3                 |
| 80             | 65                         | 4100                         | 145            | 25             | 3,75           | 32,5           | 100            | 84             | 30                         | 7               | M 8 x 30   | 933        | 10.9         | 3900  | 218                                       | 0,085703                     | 2,5                 |
| 90             | 70                         | 6000                         | 155            | 30             | 4,5            | 39             | 114            | 94             | 30                         | 10              | M 8 x 35   | 931        | 10.9         | 3600  | 231                                       | 0,132516                     | 3,3                 |
| 100            | 75                         | 7300                         | 170            | 34             | 5              | 44             | 124            | 104            | 30                         | 12              | M 8 x 35   | 931        | 10.9         | 3300  | 220                                       | 0,213950                     | 4,4                 |
| 110            | 80                         | 8900                         | 185            | 39             | 5,5            | 50             | 136            | 114            | 59                         | 9               | M 10 x 40  | 931        | 10.9         | 3000  | 208                                       | 0,347437                     | 6,0                 |
| 115            | 80                         | 9300                         | 200            | 40             | 5              | 50             | 150            | 124            | 59                         | 10              | M 10 x 40  | 931        | 10.9         | 2800  | 215                                       | 0,485678                     | 7,3                 |
| 120            | 85                         | 9600                         | 200            | 40             | 5              | 50             | 150            | 124            | 59                         | 10              | M 10 x 40  | 931        | 10.9         | 2800  | 206                                       | 0,476000                     | 7,0                 |
| 125            | 90                         | 13100                        | 215            | 42             | 6              | 54             | 160            | 134            | 59                         | 12              | M 10 x 40  | 931        | 10.9         | 2600  | 226                                       | 0,672619                     | 8,7                 |
| 140            | 100                        | 17900                        | 230            | 46             | 7,25           | 60,5           | 175            | 146            | 100                        | 10              | M 12 x 45  | 931        | 10.9         | 2400  | 224                                       | 0,996875                     | 11                  |
| 155            | 110                        | 23900                        | 265            | 50             | 7,25           | 64,5           | 192            | 165            | 100                        | 12              | M 12 x 50  | 931        | 10.9         | 2100  | 224                                       | 1,885000                     | 16                  |
| 165            | 120                        | 38700                        | 290            | 56             | 7,5            | 71             | 210            | 175            | 250                        | 8               | M 16 x 55  | 931        | 10.9         | 1900  | 258                                       | 3,061438                     | 22                  |
| 175            | 130                        | 42600                        | 300            | 56             | 7,5            | 71             | 220            | 185            | 250                        | 8               | M 16 x 55  | 931        | 10.9         | 1900  | 243                                       | 3,467969                     | 23                  |
| 185            | 140                        | 59000                        | 330            | 71             | 7,5            | 86             | 236            | 195            | 250                        | 10              | M 16 x 70  | 931        | 10.9         | 1700  | 227                                       | 6,261719                     | 35                  |
| 195            | 150                        | 79500                        | 350            | 71             | 7,5            | 86             | 246            | 210            | 250                        | 12              | M 16 x 70  | 931        | 10.9         | 1600  | 258                                       | 8,026250                     | 40                  |
| 200            | 155                        | 81700                        | 350            | 71             | 7,5            | 86             | 246            | 210            | 250                        | 12              | M 16 x 70  | 931        | 10.9         | 1600  | 252                                       | 7,921875                     | 39                  |
| 220            | 165                        | 103000                       | 370            | 88             | 8              | 104            | 270            | 230            | 250                        | 15              | M 16 x 80  | 931        | 10.9         | 1500  | 231                                       | 1,1813                       | 51                  |
| 240            | 180                        | 144000                       | 405            | 92             | 8,5            | 109            | 295            | 248            | 490                        | 12              | M 20 x 80  | 931        | 10.9         | 1400  | 254                                       | 1,7730                       | 64                  |
| 245            | 185                        | 147000                       | 410            | 95             | 8              | 111            | 298            | 251            | 490                        | 12              | M 20 x 80  | 931        | 10.9         | 1300  | 241                                       | 1,9105                       | 67                  |
| 260            | 190                        | 170000                       | 440            | 103            | 8,5            | 120            | 321            | 268            | 490                        | 14              | M 20 x 90  | 931        | 10.9         | 1300  | 244                                       | 2,7426                       | 84                  |
| 280            | 210                        | 224000                       | 460            | 114            | 10             | 134            | 346            | 288            | 490                        | 16              | M 20 x 100 | 931        | 10.9         | 1200  | 234                                       | 3,5888                       | 99                  |
| 300            | 230                        | 287000                       | 485            | 122            | 10             | 142            | 364            | 308            | 490                        | 18              | M 20 x 100 | 931        | 10.9         | 1100  | 230                                       | 4,6751                       | 115                 |
| 320            | 240                        | 326000                       | 520            | 122            | 10             | 142            | 386            | 328            | 490                        | 20              | M 20 x 100 | 931        | 10.9         | 1100  | 239                                       | 6,1978                       | 133                 |
| 340            | 250                        | 401000                       | 570            | 134            | 11             | 156            | 408            | 348            | 490                        | 24              | M 20 x 110 | 931        | 10.9         | 1000  | 246                                       | 10,08                        | 183                 |
| 350            | 270                        | 456000                       | 580            | 140            | 11             | 162            | 432            | 358            | 490                        | 24              | M 20 x 110 | 931        | 10.9         | 980   | 229                                       | 11,07                        | 193                 |
| 360            | 290                        | 519000                       | 590            | 140            | 11             | 162            | 432            | 368            | 490                        | 24              | M 20 x 110 | 931        | 10.9         | 970   | 222                                       | 11,76                        | 197                 |
| 380            | 300                        | 635000                       | 645            | 144            | 12             | 168            | 458            | 387            | 840                        | 20              | M 24 x 120 | 931        | 10.9         | 880   | 245                                       | 17,86                        | 255                 |
| 390            | 310                        | 697000                       | 660            | 144            | 12             | 168            | 468            | 397            | 840                        | 21              | M 24 x 120 | 931        | 10.9         | 860   | 251                                       | 19,54                        | 266                 |
| 400            | 320                        | 722000                       | 680            | 144            | 12             | 168            | 480            | 407            | 840                        | 21              | M 24 x 120 | 931        | 10.9         | 840   | 245                                       | 22,10                        | 284                 |
| 420            | 340                        | 891000                       | 690            | 164            | 12             | 188            | 504            | 427            | 840                        | 24              | M 24 x 130 | 931        | 10.9         | 830   | 234                                       | 25,94                        | 318                 |

# 3071 Standard-Range

| <b>d</b><br>mm | <b>d<sub>w</sub></b><br>mm | <b>M<sub>max</sub></b><br>Nm | <b>D</b><br>mm | <b>l</b><br>mm | <b>e</b><br>mm | <b>H</b><br>mm | <b>A</b><br>mm | <b>B</b><br>mm | <b>M<sub>A</sub></b><br>Nm | <b>Z</b><br>Stk | <b>S</b>   | <b>DIN</b> | <b>Class</b> | <b>n<sub>max</sub></b><br>min <sup>-1</sup> | <b>p<sub>N</sub></b><br>N/mm <sup>2</sup> | <b>I</b><br>kgm <sup>2</sup> | <b>Weight</b><br>kg |
|----------------|----------------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|-----------------|------------|------------|--------------|---|---|------------------------------|---------------------|
| 440            | 350                        | 891000                       | 750            | 177            | 12,5           | 202            | 527            | 447            | 840                        | 24              | M 24 x 140 | 931        | 10.9         | 760   | 207                                       | 39,13                        | 414                 |
| 460            | 370                        | 1127000                      | 770            | 177            | 12,5           | 202            | 547            | 468            | 840                        | 28              | M 24 x 140 | 931        | 10.9         | 740   | 231                                       | 43,04                        | 428                 |
| 480            | 390                        | 1290000                      | 800            | 188            | 12,5           | 213            | 570            | 488            | 840                        | 30              | M 24 x 140 | 931        | 10.9         | 710   | 223                                       | 52,77                        | 485                 |
| 500            | 410                        | 1431000                      | 850            | 188            | 12,5           | 213            | 590            | 508            | 1250                       | 24              | M 27 x 150 | 931        | 10.9         | 670   | 225                                       | 68,08                        | 560                 |
| 530            | 440                        | 1961000                      | 900            | 215            | 12,5           | 240            | 620            | 538            | 1250                       | 30              | M 27 x 180 | 931        | 10.9         | 630   | 232                                       | 93,54                        | 686                 |
| 560            | 460                        | 2165000                      | 950            | 215            | 12,5           | 240            | 650            | 568            | 1250                       | 32              | M 27 x 180 | 931        | 10.9         | 600   | 234                                       | 116                          | 763                 |
| 590            | 480                        | 2514000                      | 980            | 235            | 15             | 265            | 685            | 600            | 1250                       | 36              | M 27 x 180 | 931        | 10.9         | 580   | 229                                       | 142                          | 869                 |
| 620            | 510                        | 2856000                      | 1020           | 235            | 15             | 265            | 715            | 630            | 1250                       | 38              | M 27 x 180 | 931        | 10.9         | 560   | 230                                       | 166                          | 931                 |
| 660            | 540                        | 3676000                      | 1100           | 260            | 15             | 290            | 760            | 670            | 1700                       | 38              | M 30 x 200 | 931        | 10.9         | 520   | 238                                       | 246                          | 1195                |
| 700            | 580                        | 4232000                      | 1200           | 260            | 15             | 290            | 800            | 710            | 1700                       | 40              | M 30 x 200 | 931        | 10.9         | 470   | 236                                       | 354                          | 1466                |
| 720            | 600                        | 4639000                      | 1230           | 260            | 15             | 290            | 820            | 730            | 1700                       | 42              | M 30 x 200 | 931        | 10.9         | 460   | 241                                       | 390                          | 1535                |
| 750            | 620                        | 4967000                      | 1230           | 280            | 17,5           | 315            | 855            | 762            | 1700                       | 44              | M 30 x 220 | 931        | 10.9         | 460   | 225                                       | 420                          | 1619                |
| 800            | 660                        | 5501000                      | 1310           | 280            | 17,5           | 315            | 905            | 812            | 1700                       | 46              | M 30 x 220 | 931        | 10.9         | 430   | 220                                       | 540                          | 1833                |
| 850            | 700                        | 6322000                      | 1330           | 310            | 17,5           | 345            | 965            | 862            | 1700                       | 50              | M 30 x 250 | 931        | 10.9         | 430   | 204                                       | 604                          | 1938                |
| 900            | 740                        | 6950000                      | 1400           | 310            | 17,5           | 345            | 1015           | 912            | 1700                       | 52              | M 30 x 250 | 931        | 10.9         | 400   | 200                                       | 738                          | 2130                |
| 950            | 780                        | 8421000                      | 1550           | 340            | 20             | 380            | 1075           | 962            | 2800                       | 42              | M 36 x 260 | 931        | 10.9         | 370   | 199                                       | 1285                         | 3111                |
| 1000           | 820                        | 10562000                     | 1620           | 340            | 20             | 380            | 1125           | 1012           | 2800                       | 50              | M 36 x 260 | 931        | 10.9         | 350   | 225                                       | 1526                         | 3369                |