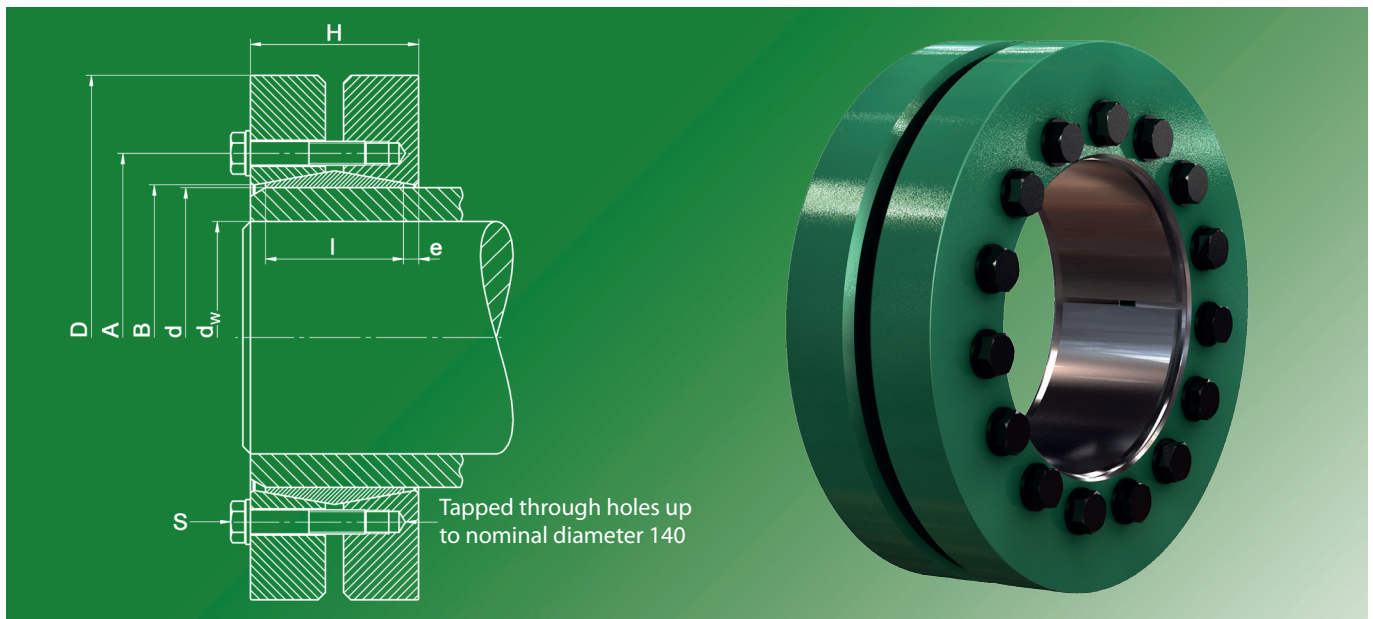
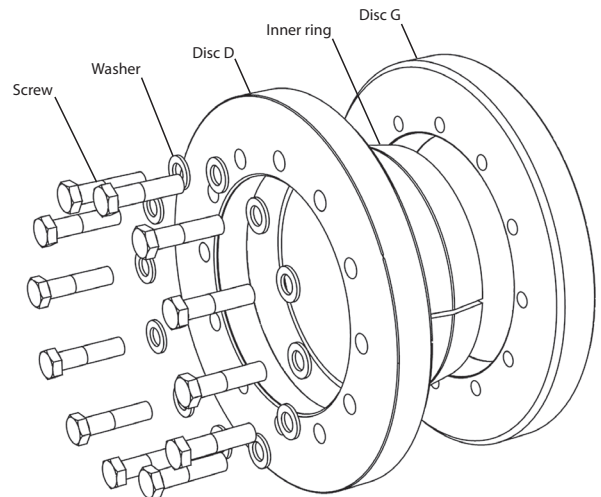




## Used symbols

|           |                      |                                          |
|-----------|----------------------|------------------------------------------|
| $d$       | [mm]                 | Nominal diameter of the shrink disc      |
| $d_w$     | [mm]                 | Shaft diameter                           |
| $M_{max}$ | [mm]                 | Maximal transmittable torque             |
| $D$       | [mm]                 | Outer diameter                           |
| $I$       | [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

$d < 120$  - Discs galvanized - without washers

$d \geq 120$  - 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 $d_w$

| ><br>mm | ≤<br>mm | minimal<br>-<br>mm | maximal<br>+<br>mm |
|---------|---------|--------------------|--------------------|
| 40      | 50      | -3                 | 2                  |
| 50      | 140     | -5                 | 5                  |
| 140     | 180     | -10                | 5                  |
| 180     | 320     | -15                | 10                 |
| 320     | 440     | -20                | 10                 |
| 440     | 600     | -30                | 10                 |

$$M = M_{max(Katalog)} \frac{d_w(soll)}{d_w(Katalog)}$$

(see Basics - Calculation)

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

Ordering information: TAS 3091 -  $d$  (e.g.: TAS 3091-200 ... further sizes on request)  
with Inbus: TAS 3091 -  $d$  - Inbus (e.g.: TAS 3091-200-Inbus)

# 3091

Heavy-Range

| <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>e</i><br>mm | <i>H</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>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 |
|----------------|----------------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|-----------------|------------|------------|--------------|---------------------------------------------|-------------------------------------------|------------------------------|---------------------|
| 40             | 30                         | 890                          | 80             | 25             | 3,5            | 32             | 62             | 43             | 30                         | 4               | M 8 x 30   | 933        | 10.9         | 7100                                        | 249                                       | 0,0008300                    | 0,83                |
| 44             | 34                         | 1300                         | 85             | 28             | 3              | 34             | 66             | 47             | 30                         | 5               | M 8 x 30   | 933        | 10.9         | 6700                                        | 253                                       | 0,0011451                    | 1,0                 |
| 50             | 40                         | 2500                         | 95             | 30             | 4,5            | 39             | 73             | 54             | 30                         | 7               | M 8 x 35   | 933        | 10.9         | 6000                                        | 291                                       | 0,0020169                    | 1,4                 |
| 55             | 45                         | 2900                         | 105            | 30             | 4,5            | 39             | 78             | 59             | 30                         | 7               | M 8 x 35   | 933        | 10.9         | 5400                                        | 264                                       | 0,0029856                    | 1,7                 |
| 62             | 50                         | 3200                         | 115            | 30             | 4,5            | 39             | 85             | 66             | 30                         | 7               | M 8 x 35   | 933        | 10.9         | 4900                                        | 235                                       | 0,0042672                    | 2,0                 |
| 68             | 55                         | 3900                         | 120            | 30             | 4,5            | 39             | 92             | 72             | 30                         | 8               | M 8 x 35   | 933        | 10.9         | 4700                                        | 244                                       | 0,0049938                    | 2,1                 |
| 75             | 60                         | 5900                         | 145            | 36             | 5              | 46             | 105            | 84             | 59                         | 7               | M 10 x 40  | 933        | 10.9         | 4100                                        | 257                                       | 0,0101760                    | 3,3                 |
| 80             | 65                         | 6600                         | 145            | 36             | 5              | 46             | 105            | 84             | 59                         | 7               | M 10 x 40  | 933        | 10.9         | 3900                                        | 241                                       | 0,0123412                    | 3,6                 |
| 90             | 70                         | 7600                         | 160            | 40             | 5              | 50             | 116            | 94             | 59                         | 8               | M 10 x 40  | 933        | 10.9         | 3500                                        | 220                                       | 0,0202200                    | 4,8                 |
| 100            | 75                         | 9800                         | 170            | 44             | 5              | 54             | 126            | 104            | 59                         | 10              | M 10 x 45  | 931        | 10.9         | 3300                                        | 225                                       | 0,0262575                    | 5,4                 |
| 110            | 80                         | 12000                        | 185            | 50             | 5              | 60             | 138            | 114            | 59                         | 12              | M 10 x 45  | 931        | 10.9         | 3000                                        | 216                                       | 0,0411134                    | 7,1                 |
| 120            | 85                         | 14300                        | 210            | 55             | 5              | 65             | 155            | 125            | 100                        | 10              | M 12 x 50  | 931        | 10.9         | 2700                                        | 219                                       | 0,0731250                    | 10                  |
| 125            | 90                         | 15600                        | 215            | 55             | 5              | 65             | 160            | 129            | 100                        | 10              | M 12 x 50  | 931        | 10.9         | 2600                                        | 210                                       | 0,0850438                    | 11                  |
| 140            | 100                        | 21000                        | 230            | 60             | 7              | 74             | 175            | 144            | 100                        | 12              | M 12 x 55  | 931        | 10.9         | 2400                                        | 207                                       | 0,1178125                    | 13                  |
| 155            | 110                        | 29500                        | 265            | 66             | 7              | 80             | 198            | 164            | 100                        | 15              | M 12 x 60  | 931        | 10.9         | 2100                                        | 212                                       | 0,2356250                    | 20                  |
| 165            | 120                        | 48100                        | 290            | 72             | 8              | 88             | 210            | 174            | 250                        | 10              | M 16 x 70  | 931        | 10.9         | 1900                                        | 251                                       | 0,3757219                    | 27                  |
| 175            | 130                        | 53100                        | 300            | 72             | 8              | 88             | 220            | 184            | 250                        | 10              | M 16 x 70  | 931        | 10.9         | 1900                                        | 237                                       | 0,4221875                    | 28                  |
| 185            | 140                        | 83500                        | 330            | 92             | 10             | 112            | 236            | 194            | 250                        | 14              | M 16 x 80  | 931        | 10.9         | 1700                                        | 245                                       | 0,8229688                    | 46                  |
| 200            | 150                        | 95400                        | 350            | 92             | 10             | 112            | 246            | 204            | 250                        | 15              | M 16 x 80  | 931        | 10.9         | 1600                                        | 243                                       | 1,0359000                    | 51                  |
| 220            | 165                        | 138000                       | 370            | 114            | 10             | 134            | 270            | 224            | 250                        | 20              | M 16 x 90  | 931        | 10.9         | 1500                                        | 238                                       | 1,5287                       | 66                  |
| 240            | 180                        | 180000                       | 405            | 120            | 12             | 144            | 295            | 244            | 490                        | 15              | M 20 x 100 | 931        | 10.9         | 1400                                        | 243                                       | 2,3548                       | 85                  |
| 260            | 200                        | 247000                       | 430            | 136            | 12             | 160            | 321            | 265            | 490                        | 18              | M 20 x 110 | 931        | 10.9         | 1300                                        | 238                                       | 3,2825                       | 104                 |
| 280            | 220                        | 330000                       | 460            | 148            | 12             | 172            | 346            | 285            | 490                        | 21              | M 20 x 120 | 931        | 10.9         | 1200                                        | 237                                       | 4,6400                       | 128                 |
| 300            | 240                        | 388000                       | 485            | 152            | 12             | 176            | 364            | 305            | 490                        | 22              | M 20 x 120 | 931        | 10.9         | 1100                                        | 225                                       | 5,8134                       | 143                 |
| 320            | 250                        | 428000                       | 520            | 160            | 12             | 184            | 386            | 325            | 490                        | 24              | M 20 x 130 | 931        | 10.9         | 1100                                        | 219                                       | 7,9220                       | 170                 |
| 340            | 260                        | 546000                       | 570            | 176            | 12             | 200            | 420            | 345            | 840                        | 21              | M 24 x 130 | 931        | 10.9         | 1000                                        | 236                                       | 13,10                        | 238                 |
| 350            | 280                        | 626000                       | 580            | 176            | 12             | 200            | 425            | 355            | 840                        | 21              | M 24 x 130 | 931        | 10.9         | 980                                         | 229                                       | 13,94                        | 243                 |
| 360            | 290                        | 687000                       | 590            | 180            | 12             | 204            | 432            | 365            | 840                        | 22              | M 24 x 140 | 931        | 10.9         | 970                                         | 228                                       | 14,81                        | 248                 |
| 380            | 305                        | 719000                       | 645            | 180            | 12             | 204            | 458            | 387            | 840                        | 22              | M 24 x 140 | 931        | 10.9         | 880                                         | 216                                       | 21,65                        | 309                 |
| 390            | 310                        | 789000                       | 660            | 188            | 12             | 212            | 468            | 397            | 840                        | 24              | M 24 x 140 | 931        | 10.9         | 860                                         | 220                                       | 24,68                        | 336                 |
| 400            | 320                        | 817000                       | 680            | 188            | 12             | 212            | 480            | 407            | 840                        | 24              | M 24 x 140 | 931        | 10.9         | 840                                         | 214                                       | 27,85                        | 358                 |
| 420            | 340                        | 1110000                      | 690            | 214            | 12             | 238            | 504            | 427            | 840                        | 30              | M 24 x 150 | 931        | 10.9         | 830                                         | 224                                       | 33,52                        | 411                 |
| 440            | 350                        | 1173000                      | 750            | 224            | 14             | 252            | 527            | 448            | 1250                       | 24              | M 27 x 170 | 931        | 10.9         | 760                                         | 215                                       | 49,52                        | 524                 |
| 460            | 370                        | 1483000                      | 770            | 224            | 14             | 252            | 547            | 468            | 1250                       | 28              | M 27 x 170 | 931        | 10.9         | 740                                         | 240                                       | 54,40                        | 541                 |
| 480            | 390                        | 1694000                      | 800            | 246            | 14             | 274            | 580            | 488            | 1250                       | 30              | M 27 x 180 | 931        | 10.9         | 710                                         | 224                                       | 70,39                        | 647                 |
| 500            | 410                        | 1910000                      | 850            | 246            | 14             | 274            | 600            | 508            | 1250                       | 32              | M 27 x 180 | 931        | 10.9         | 670                                         | 229                                       | 90,81                        | 747                 |
| 530            | 440                        | 2207000                      | 910            | 275            | 14             | 303            | 630            | 538            | 1250                       | 34              | M 27 x 200 | 931        | 10.9         | 630                                         | 206                                       | 130                          | 939                 |
| 660            | 540                        | 4116000                      | 1070           | 310            | 15             | 340            | 780            | 670            | 2800                       | 30              | M 36 x 240 | 931        | 10.9         | 530                                         | 224                                       | 263                          | 1331                |