

# SHRINK DISC TYPE HSD – MECHANICAL



# SHRINK DISC TYPE HSD – GENERAL INFORMATION

## Application Description

Shrink discs are detachable machine elements for the connection of a hub to a shaft. The two-part path-controlled frictional connection is maintenance-free and dirt-resistant due to its press fit and is very versatile in its use. The cost-effective and high-quality mechanical shrink discs are supplied by STÜWE® in many different variants.

## Areas of Use



Driveline  
technology



Steel- &  
rolling mill equipment



Crushing  
equipment



Conveying  
equipment



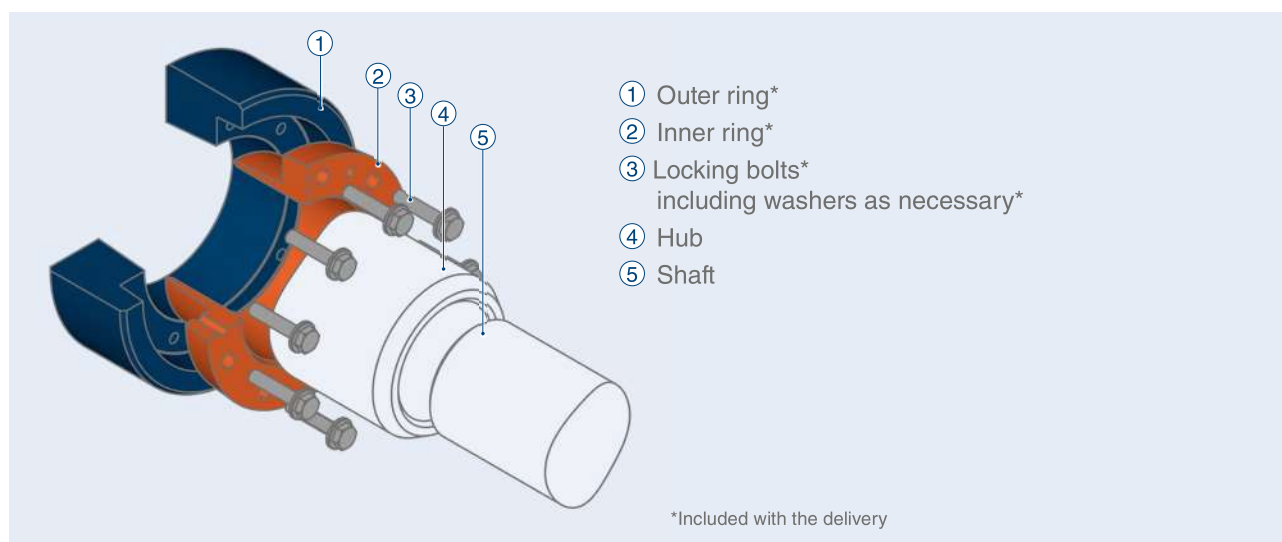
Agitation &  
mixing equipment



Wind turbines

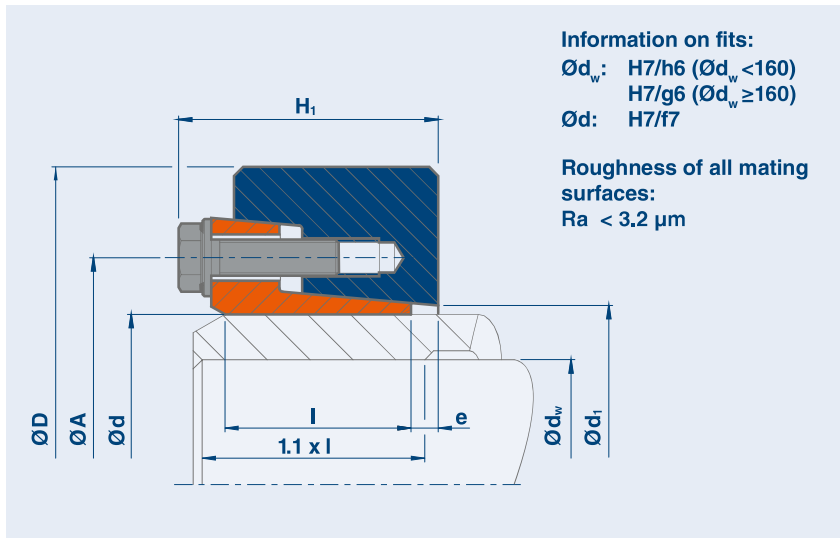
# SHRINK DISC TYPE HSD – SERIES

| Description     | Shaft diameter | Transmissible torque | Features                                               |
|-----------------|----------------|----------------------|--------------------------------------------------------|
| HSD 20          | 20 - 250 mm    | 0.15 - 18.3 kNm      | Low torques                                            |
| HSD 21          | 110 - 730 mm   | 16 - 4033 kNm        | Average torques                                        |
| HSD 22          | 9 - 1050 mm    | 0.02 - 16493 kNm     | High torques                                           |
| HSD 23          | 100 - 1050 mm  | 26 - 19684 kNm       | Very high torques                                      |
| HSD 81          | 38 - 1050 mm   | 1.5 - 19958 kNm      | As series 22 but with 20 - 30 % higher torque capacity |
| HSD 83          | 100 - 1050 mm  | 30 - 23811 kNm       | As series 23 but with 20 - 30 % higher torque capacity |
| HSD 20 - 1.4122 | 20 - 250 mm    | 0.08 - 9.14 kNm      | Low torques, rust-and acid-proof                       |
| HSD 20 - 1.4462 | 20 - 250 mm    | 0.06 - 6.84 kNm      | Low torques, rust-and acid-proof                       |



All types may be protected against environmental influences by zinc and nickel coating or by a paint which has an appropriate corrosion protection class. We are able to achieve both desired colours which conform with the RAL colour range and products with lubricants in accordance with NSF H1. More detailed information on this may be found in this catalogue on page 151.

# STÜWE® Shrink Disc Type HSD Series 20



## Code

**$M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

**$P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$

**$M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 20

| Type        | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*     | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|-------------|---------|----------------------|-----------------------|-----------------------|----------------------|--------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 24 - 20 | 24      | 20                   | 0.15                  | 15                    | 12                   | 6 x M6 | 50      | 11.5    | 17                   | 38      | 25.5                 | 1.5     | 0.2 |
|             |         | 21                   | 0.17                  | 17                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 22                   | 0.21                  | 19                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 29 - 20 | 29      | 25                   | 0.22                  | 18                    | 12                   | 6 x M6 | 58      | 12.5    | 18                   | 44      | 32                   | 1.5     | 0.2 |
|             |         | 26                   | 0.25                  | 19                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 27                   | 0.29                  | 21                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 35 - 20 | 34      | 29                   | 0.22                  | 15                    | 12                   | 5 x M6 | 64      | 12.5    | 18                   | 52      | 39                   | 1.5     | 0.2 |
|             |         | 30                   | 0.25                  | 16                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 32                   | 0.31                  | 19                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 40 - 20 | 38      | 34                   | 0.28                  | 16                    | 12                   | 6 x M6 | 69      | 12.2    | 18                   | 55      | 43                   | 1.6     | 0.3 |
|             |         | 35                   | 0.31                  | 18                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 36                   | 0.34                  | 19                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 46 - 20 | 46      | 38                   | 0.41                  | 22                    | 12                   | 6 x M6 | 80      | 13      | 23                   | 62      | 49                   | 2.5     | 0.4 |
|             |         | 40                   | 0.50                  | 25                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 42                   | 0.60                  | 28                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 51 - 20 | 51      | 44                   | 0.55                  | 25                    | 12                   | 8 x M6 | 86      | 13      | 23                   | 67      | 54                   | 2.6     | 0.5 |
|             |         | 45                   | 0.60                  | 27                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 47                   | 0.70                  | 30                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 56 - 20 | 55      | 48                   | 0.57                  | 24                    | 12                   | 8 x M6 | 90      | 13      | 23                   | 72      | 59                   | 3       | 0.5 |
|             |         | 50                   | 0.66                  | 26                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 52                   | 0.76                  | 29                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 61 - 20 | 61      | 53                   | 0.68                  | 26                    | 12                   | 8 x M6 | 96      | 13      | 24                   | 76      | 64                   | 3       | 0.6 |
|             |         | 55                   | 0.79                  | 29                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 57                   | 0.90                  | 32                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 66 - 20 | 65      | 58                   | 0.74                  | 26                    | 12                   | 8 x M6 | 100     | 13      | 24                   | 82      | 69                   | 3       | 0.6 |
|             |         | 60                   | 0.85                  | 28                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 62                   | 0.97                  | 31                    |                      |        |         |         |                      |         |                      |         |     |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 35 - 20 x 34



## Shrink Disc Type HSD – Series 20

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 73 - 20  | 70      | 63                   | 0.94                  | 30                    | 29                   | 9 x M8  | 115     | 18      | 30                   | 94      | 77                   | 3       | 1.2 |
|              | 72      | 65                   | 1.07                  | 33                    |                      |         |         |         |                      |         |                      |         |     |
|              | 73      | 68                   | 1.29                  | 38                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 78 - 20  | 76      | 68                   | 1.21                  | 36                    | 29                   | 9 x M8  | 120     | 18      | 30                   | 100     | 82                   | 3       | 1.2 |
|              | 78      | 70                   | 1.36                  | 39                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 72                   | 1.52                  | 42                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 83 - 20  | 81      | 73                   | 1.24                  | 34                    | 29                   | 9 x M8  | 125     | 18      | 30                   | 104     | 87                   | 3       | 1.3 |
|              | 83      | 75                   | 1.38                  | 37                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 77                   | 1.54                  | 40                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 88 - 20  | 86      | 78                   | 1.47                  | 38                    | 29                   | 9 x M8  | 130     | 18      | 30                   | 110     | 92                   | 3       | 1.4 |
|              | 88      | 80                   | 1.62                  | 40                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 82                   | 1.78                  | 43                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 93 - 20  | 93      | 83                   | 1.63                  | 39                    | 29                   | 9 x M8  | 135     | 18      | 31                   | 114     | 97                   | 3       | 1.4 |
|              | 94      | 85                   | 1.80                  | 42                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 87                   | 1.97                  | 45                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 98 - 20  | 96      | 88                   | 1.72                  | 39                    | 29                   | 9 x M8  | 140     | 18      | 31                   | 120     | 102                  | 3       | 1.5 |
|              | 98      | 90                   | 1.89                  | 42                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 92                   | 2.07                  | 45                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 103 - 20 | 103     | 93                   | 2.13                  | 46                    | 29                   | 10 x M8 | 145     | 18      | 31                   | 124     | 107                  | 3.5     | 1.5 |
|              |         | 95                   | 2.31                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 97                   | 2.50                  | 52                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 108 - 20 | 106     | 98                   | 2.16                  | 44                    | 29                   | 10 x M8 | 150     | 18      | 31                   | 128     | 112                  | 3.5     | 1.6 |
|              | 108     | 100                  | 2.34                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 102                  | 2.53                  | 50                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 115 - 20 | 112     | 103                  | 2.34                  | 45                    | 29                   | 10 x M8 | 160     | 22      | 35                   | 134     | 118                  | 3.5     | 2.1 |
|              | 115     | 105                  | 2.54                  | 48                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 108                  | 2.86                  | 53                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 120 - 20 | 118     | 108                  | 2.82                  | 52                    | 29                   | 10 x M8 | 164     | 22      | 35                   | 140     | 124                  | 3.5     | 2.1 |
|              | 120     | 110                  | 3.03                  | 55                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 113                  | 3.37                  | 60                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 125 - 20 | 125     | 113                  | 2.94                  | 52                    | 29                   | 12 x M8 | 169     | 22      | 35                   | 144     | 129                  | 3.5     | 2.2 |
|              |         | 115                  | 3.16                  | 55                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 118                  | 3.49                  | 59                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 130 - 20 | 130     | 118                  | 3.15                  | 53                    | 29                   | 12 x M8 | 174     | 22      | 35                   | 150     | 134                  | 3.5     | 2.2 |
|              |         | 120                  | 3.37                  | 56                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 123                  | 3.71                  | 60                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 135 - 20 | 135     | 123                  | 3.57                  | 58                    | 29                   | 12 x M8 | 179     | 22      | 35                   | 154     | 139                  | 3.5     | 2.3 |
|              |         | 125                  | 3.81                  | 61                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 128                  | 4.19                  | 66                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 140 - 20 | 138     | 128                  | 3.93                  | 61                    | 29                   | 12 x M8 | 184     | 22      | 36                   | 160     | 144                  | 4       | 2.4 |
|              | 140     | 130                  | 4.18                  | 64                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 132                  | 4.44                  | 67                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 145 - 20 | 145     | 133                  | 4.39                  | 66                    | 29                   | 12 x M8 | 189     | 22      | 36                   | 164     | 149                  | 4       | 2.5 |
|              |         | 135                  | 4.65                  | 69                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 137                  | 4.92                  | 72                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 150 - 20 | 150     | 138                  | 4.89                  | 71                    | 29                   | 12 x M8 | 194     | 22      | 36                   | 170     | 154                  | 4       | 2.5 |
|              |         | 140                  | 5.16                  | 74                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 142                  | 5.44                  | 77                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 160 - 20 | 160     | 146                  | 4.86                  | 67                    | 29                   | 12 x M8 | 204     | 22      | 35                   | 180     | 164                  | 4       | 2.6 |
|              |         | 150                  | 5.39                  | 72                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 152                  | 5.67                  | 75                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 170 - 20 | 166     | 156                  | 5.20                  | 67                    | 29                   | 12 x M8 | 214     | 22      | 35                   | 190     | 174                  | 4       | 3.0 |
|              | 170     | 160                  | 5.73                  | 72                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 162                  | 6.01                  | 74                    |                      |         |         |         |                      |         |                      |         |     |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 108 - 20 x 106

## Shrink Disc Type HSD – Series 20

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 182 - 20 | 182     | 166                  | 7.62                  | 92                    | 29                   | 14 x M8 | 230     | 25      | 41                   | 206     | 188                  | 5       | 3.9 |
|              |         | 170                  | 8.35                  | 98                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 172                  | 8.73                  | 101                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 192 - 20 | 189     | 176                  | 8.35                  | 95                    | 29                   | 14 x M8 | 240     | 25      | 41                   | 216     | 198                  | 5       | 3.9 |
|              |         | 180                  | 9.09                  | 101                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 182                  | 9.47                  | 104                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 202 - 20 | 197     | 186                  | 8.88                  | 95                    | 29                   | 15 x M8 | 250     | 25      | 41                   | 224     | 208                  | 5.5     | 4.6 |
|              |         | 190                  | 9.67                  | 102                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 192                  | 10.08                 | 105                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 212 - 20 | 212     | 196                  | 9.74                  | 99                    | 29                   | 15 x M8 | 260     | 25      | 41                   | 234     | 218                  | 5.5     | 4.4 |
|              |         | 200                  | 10.55                 | 106                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 202                  | 10.97                 | 109                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 222 - 20 | 220     | 206                  | 10.83                 | 105                   | 29                   | 16 x M8 | 270     | 25      | 42                   | 244     | 228                  | 5.7     | 4.9 |
|              |         | 210                  | 11.66                 | 111                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 212                  | 12.09                 | 114                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 232 - 20 | 230     | 216                  | 14.40                 | 133                   | 29                   | 16 x M8 | 280     | 25      | 42                   | 254     | 238                  | 5.7     | 5.0 |
|              |         | 220                  | 15.35                 | 140                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 222                  | 15.83                 | 143                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 242 - 20 | 242     | 226                  | 15.27                 | 135                   | 29                   | 16 x M8 | 290     | 25      | 42                   | 264     | 248                  | 5.7     | 5.0 |
|              |         | 230                  | 16.22                 | 141                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 232                  | 16.72                 | 144                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 252 - 20 | 252     | 234                  | 15.98                 | 137                   | 29                   | 16 x M8 | 300     | 25      | 42                   | 274     | 258                  | 6       | 5.2 |
|              |         | 238                  | 16.94                 | 142                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 240                  | 17.44                 | 145                   |                      |         |         |         |                      |         |                      |         |     |
| HSD 262 - 20 | 262     | 244                  | 16.84                 | 138                   | 29                   | 18 x M8 | 310     | 25      | 42                   | 286     | 268                  | 6       | 5.6 |
|              |         | 248                  | 17.80                 | 144                   |                      |         |         |         |                      |         |                      |         |     |
|              |         | 250                  | 18.30                 | 146                   |                      |         |         |         |                      |         |                      |         |     |

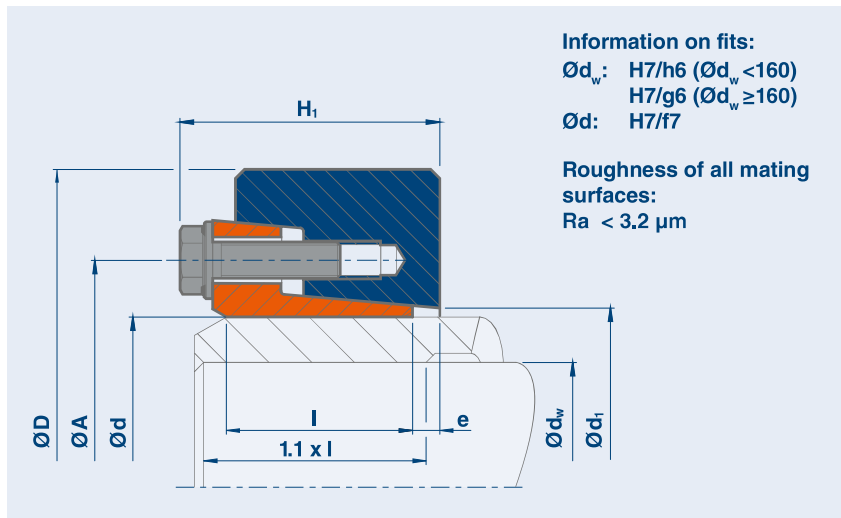
Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 192 - 20 x 192

# STÜWE® Shrink Disc Type HSD Series 21



## Code

**$M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

**$P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$

**$M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 21

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 140 - 21 | 140     | 110                  | 16                    | 298                   | 100                  | 9 x M12  | 215     | 38      | 52                   | 164     | 143                  | 6.5     | 6.4  |
|              |         | 120                  | 20                    | 341                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 130                  | 25                    | 385                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 155 - 21 | 155     | 130                  | 26                    | 398                   | 100                  | 15 x M12 | 245     | 38      | 52                   | 184     | 164                  | 6.5     | 8.7  |
|              |         | 160                  | 28                    | 420                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 140                  | 31                    | 443                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 165 - 21 | 165     | 135                  | 29                    | 432                   | 160                  | 12 x M14 | 263     | 43      | 58                   | 200     | 174                  | 6.2     | 11.4 |
|              |         | 170                  | 32                    | 456                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 145                  | 35                    | 480                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 175 - 21 | 175     | 145                  | 36                    | 497                   | 160                  | 12 x M14 | 275     | 43      | 59                   | 208     | 184                  | 7.2     | 12.2 |
|              |         | 180                  | 39                    | 522                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 155                  | 42                    | 547                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 185 - 21 | 185     | 155                  | 50                    | 645                   | 160                  | 16 x M14 | 290     | 51      | 68                   | 220     | 195                  | 8.2     | 16   |
|              |         | 190                  | 54                    | 675                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 165                  | 58                    | 704                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 195 - 21 | 195     | 165                  | 68                    | 822                   | 160                  | 15 x M14 | 320     | 51      | 68                   | 230     | 204                  | 8.2     | 20.6 |
|              |         | 200                  | 73                    | 855                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 180                  | 83                    | 922                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 220 - 21 | 220     | 180                  | 80                    | 892                   | 240                  | 16 x M16 | 340     | 55      | 79                   | 254     | 227                  | 10      | 23.6 |
|              |         | 190                  | 91                    | 962                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 200                  | 103                   | 1032                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 240 - 21 | 240     | 200                  | 103                   | 1026                  | 240                  | 16 x M16 | 370     | 55      | 80                   | 274     | 247                  | 11      | 27.6 |
|              |         | 210                  | 115                   | 1095                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 220                  | 128                   | 1165                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 260 - 21 | 260     | 220                  | 132                   | 1197                  | 240                  | 18 x M16 | 405     | 55      | 80                   | 294     | 266                  | 11      | 33.5 |
|              |         | 230                  | 146                   | 1271                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 240                  | 161                   | 1344                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 280 - 21 | 280     | 230                  | 160                   | 1392                  | 470                  | 15 x M20 | 430     | 65      | 93                   | 320     | 288                  | 12      | 44.1 |
|              |         | 240                  | 177                   | 1473                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 250                  | 194                   | 1555                  |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 185 - 21 x 190

## Shrink Disc Type HSD – Series 21

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 300 - 21 | 300     | 250                  | 191                   | 1529                  | 470                  | 16 x M20 | 460     | 65      | 94                   | 340     | 308                  | 13      | 50.2 |
|              |         | 260                  | 209                   | 1610                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 270                  | 228                   | 1691                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 320 - 21 | 320     | 270                  | 243                   | 1804                  | 470                  | 20 x M20 | 485     | 77      | 106                  | 364     | 327                  | 13      | 64.5 |
|              |         | 280                  | 265                   | 1894                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 290                  | 288                   | 1986                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 340 - 21 | 340     | 280                  | 274                   | 1958                  | 470                  | 20 x M20 | 520     | 77      | 106                  | 384     | 347                  | 13      | 75   |
|              |         | 290                  | 297                   | 2050                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 300                  | 322                   | 2143                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 360 - 21 | 360     | 300                  | 356                   | 2373                  | 470                  | 20 x M20 | 570     | 89      | 122                  | 410     | 368                  | 13      | 113  |
|              |         | 310                  | 384                   | 2476                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 330                  | 443                   | 2686                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 390 - 21 | 390     | 330                  | 438                   | 2654                  | 470                  | 24 x M20 | 590     | 89      | 123                  | 440     | 398                  | 14      | 114  |
|              |         | 340                  | 469                   | 2759                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 350                  | 501                   | 2865                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 420 - 21 | 420     | 350                  | 624                   | 3564                  | 820                  | 18 x M24 | 630     | 120     | 160                  | 470     | 427                  | 21      | 166  |
|              |         | 360                  | 665                   | 3697                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 370                  | 709                   | 3831                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 440 - 21 | 440     | 370                  | 778                   | 4203                  | 820                  | 20 x M24 | 660     | 132     | 174                  | 494     | 448                  | 21      | 203  |
|              |         | 380                  | 826                   | 4350                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 390                  | 877                   | 4497                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 460 - 21 | 460     | 390                  | 852                   | 4370                  | 820                  | 20 x M24 | 690     | 132     | 174                  | 516     | 468                  | 21      | 222  |
|              |         | 400                  | 903                   | 4514                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 410                  | 955                   | 4658                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 480 - 21 | 480     | 410                  | 1086                  | 5298                  | 820                  | 24 x M24 | 720     | 152     | 194                  | 540     | 487                  | 23      | 274  |
|              |         | 420                  | 1147                  | 5461                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 430                  | 1210                  | 5626                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 500 - 21 | 500     | 420                  | 1137                  | 5415                  | 820                  | 24 x M24 | 745     | 152     | 197                  | 560     | 508                  | 24      | 293  |
|              |         | 430                  | 1200                  | 5581                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 450                  | 1331                  | 5914                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 530 - 21 | 530     | 450                  | 1376                  | 6114                  | 1210                 | 24 x M27 | 790     | 166     | 209                  | 594     | 540                  | 20      | 359  |
|              |         | 460                  | 1446                  | 6287                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 480                  | 1592                  | 6635                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 560 - 21 | 560     | 480                  | 1578                  | 6576                  | 1210                 | 28 x M27 | 830     | 166     | 211                  | 626     | 570                  | 22      | 393  |
|              |         | 490                  | 1653                  | 6748                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 510                  | 1809                  | 7093                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 590 - 21 | 590     | 510                  | 1873                  | 7344                  | 1210                 | 24 x M27 | 880     | 172     | 219                  | 658     | 599                  | 26      | 452  |
|              |         | 520                  | 1957                  | 7526                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 540                  | 2131                  | 7891                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 620 - 21 | 620     | 540                  | 2097                  | 7768                  | 1210                 | 24 x M27 | 930     | 172     | 222                  | 690     | 629                  | 28      | 516  |
|              |         | 550                  | 2186                  | 7948                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 570                  | 2368                  | 8309                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 660 - 21 | 660     | 570                  | 2426                  | 8511                  | 1640                 | 24 x M30 | 990     | 182     | 235                  | 734     | 670                  | 29      | 619  |
|              |         | 580                  | 2522                  | 8696                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 610                  | 2823                  | 9255                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 700 - 21 | 700     | 610                  | 2772                  | 9088                  | 1640                 | 24 x M30 | 1040    | 182     | 234                  | 774     | 710                  | 28      | 694  |
|              |         | 620                  | 2874                  | 9271                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 640                  | 3084                  | 9638                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 750 - 21 | 750     | 640                  | 3104                  | 9700                  | 1640                 | 28 x M30 | 1100    | 192     | 246                  | 826     | 760                  | 30      | 777  |
|              |         | 650                  | 3214                  | 9888                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 680                  | 3555                  | 10456                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 800 - 21 | 800     | 680                  | 3443                  | 10128                 | 1640                 | 28 x M30 | 1150    | 192     | 248                  | 876     | 809                  | 32      | 819  |
|              |         | 700                  | 3673                  | 10495                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 730                  | 4033                  | 11049                 |                      |          |         |         |                      |         |                      |         |      |

Further sizes on request, subject to technical changes.

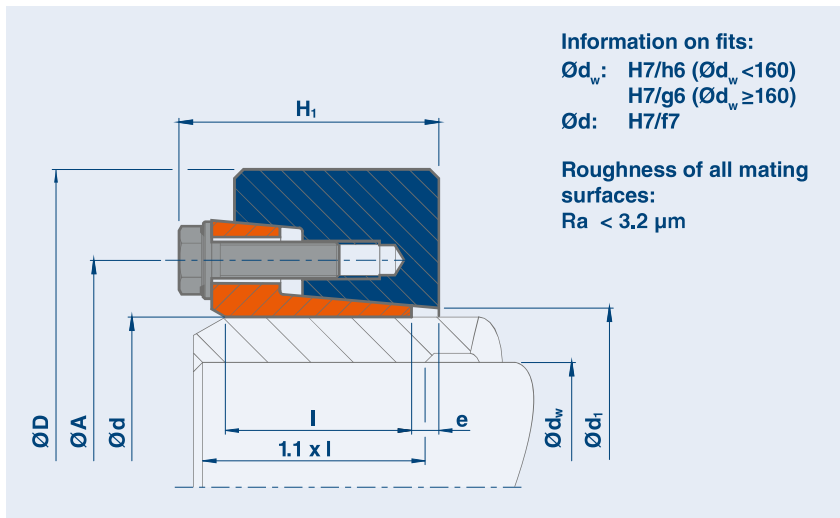
\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 660 - 21 x 660

# STÜWE® Shrink Disc Type HSD

## Series 22



### Code

- $M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$
- $P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$
- $M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 22

| Type        | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*     | D<br>mm | L<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|-------------|---------|----------------------|-----------------------|-----------------------|----------------------|--------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 12 - 22 | 12      | 9                    | 0.02                  | 5                     | 12                   | 3x M6  | 35      | 10      | 16                   | 24      | 13                   | 2       | 0.1 |
|             |         | 10                   | 0.04                  | 8                     |                      |        |         |         |                      |         |                      |         |     |
| HSD 14 - 22 | 14      | 11                   | 0.03                  | 6                     | 12                   | 3 x M6 | 38      | 10      | 16                   | 26      | 15                   | 2       | 0.1 |
|             |         | 12                   | 0.05                  | 9                     |                      |        |         |         |                      |         |                      |         |     |
| HSD 16 - 22 | 16      | 13                   | 0.07                  | 10                    | 12                   | 3 x M6 | 41      | 13.5    | 20                   | 28      | 17                   | 2.5     | 0.1 |
|             |         | 14                   | 0.09                  | 13                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 18 - 22 | 18      | 15                   | 0.08                  | 11                    | 12                   | 4x M6  | 44      | 13.5    | 20                   | 30      | 19                   | 2.5     | 0.1 |
|             |         | 16                   | 0.11                  | 14                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 20 - 22 | 20      | 17                   | 0.15                  | 18                    | 12                   | 4 x M6 | 47      | 13.5    | 20                   | 32      | 21                   | 2.5     | 0.2 |
|             |         | 18                   | 0.18                  | 20                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 24 - 22 | 24      | 19                   | 0.16                  | 17                    | 12                   | 5 x M6 | 50      | 14      | 23                   | 36      | 26                   | 2.5     | 0.2 |
|             |         | 20                   | 0.20                  | 20                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 22                   | 0.28                  | 25                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 30 - 22 | 30      | 24                   | 0.27                  | 23                    | 12                   | 6 x M6 | 60      | 16      | 26                   | 44      | 32                   | 3       | 0.4 |
|             |         | 25                   | 0.32                  | 25                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 26                   | 0.36                  | 28                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 36 - 22 | 36      | 28                   | 0.49                  | 35                    | 29                   | 5 x M8 | 72      | 18      | 29                   | 52      | 38                   | 3.4     | 0.5 |
|             |         | 30                   | 0.61                  | 41                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 33                   | 0.82                  | 50                    |                      |        |         |         |                      |         |                      |         |     |
| HSD 44 - 22 | 44      | 34                   | 0.69                  | 41                    | 29                   | 6 x M8 | 80      | 20      | 33                   | 61      | 47                   | 4.7     | 0.7 |
|             |         | 35                   | 0.77                  | 44                    |                      |        |         |         |                      |         |                      |         |     |
|             |         | 36                   | 0.84                  | 47                    |                      |        |         |         |                      |         |                      |         |     |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 44 - 22 x 42



## Shrink Disc Type HSD – Series 22

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 50 - 22  | 50      | 38                   | 1.10                  | 58                    | 29                   | 8 x M8   | 90      | 22      | 34                   | 68      | 53                   | 4.4     | 0.9  |
|              |         | 40                   | 1.29                  | 65                    |                      |          |         |         |                      |         |                      |         |      |
|              |         | 42                   | 1.50                  | 71                    |                      |          |         |         |                      |         |                      |         |      |
| HSD 55 - 22  | 55      | 42                   | 1.23                  | 59                    | 29                   | 8 x M8   | 100     | 23      | 36                   | 72      | 58                   | 4.4     | 1.2  |
|              |         | 45                   | 1.53                  | 68                    |                      |          |         |         |                      |         |                      |         |      |
|              |         | 48                   | 1.86                  | 78                    |                      |          |         |         |                      |         |                      |         |      |
| HSD 62 - 22  | 62      | 48                   | 1.67                  | 70                    | 29                   | 9 x M8   | 110     | 23      | 36                   | 80      | 66                   | 4.4     | 1.4  |
|              |         | 50                   | 1.89                  | 76                    |                      |          |         |         |                      |         |                      |         |      |
|              |         | 52                   | 2.12                  | 81                    |                      |          |         |         |                      |         |                      |         |      |
| HSD 68 - 22  | 68      | 50                   | 1.87                  | 75                    | 29                   | 9 x M8   | 115     | 23      | 36                   | 86      | 72                   | 4.4     | 1.4  |
|              |         | 55                   | 2.45                  | 89                    |                      |          |         |         |                      |         |                      |         |      |
|              |         | 60                   | 3.12                  | 104                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 75 - 22  | 75      | 55                   | 2.33                  | 85                    | 58                   | 10 x M10 | 138     | 25      | 40                   | 100     | 79                   | 4.6     | 2.5  |
|              |         | 60                   | 3.02                  | 101                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 65                   | 3.80                  | 117                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 80 - 22  | 80      | 60                   | 3.19                  | 106                   | 58                   | 10 x M10 | 141     | 25      | 40                   | 104     | 84                   | 4.6     | 2.5  |
|              |         | 65                   | 4.00                  | 123                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 70                   | 4.90                  | 140                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 90 - 22  | 90      | 65                   | 5.4                   | 166                   | 58                   | 10 x M10 | 155     | 30      | 46                   | 114     | 94                   | 5.1     | 3.5  |
|              |         | 70                   | 6.5                   | 187                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 75                   | 7.8                   | 208                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 100 - 22 | 100     | 70                   | 6.0                   | 171                   | 58                   | 12 x M10 | 170     | 34      | 51                   | 124     | 104                  | 5.1     | 4.7  |
|              |         | 95                   | 7.2                   | 192                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 80                   | 8.5                   | 213                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 110 - 22 | 110     | 80                   | 10.0                  | 249                   | 100                  | 12 x M12 | 185     | 39      | 59                   | 137     | 114                  | 5.5     | 6.3  |
|              |         | 105                  | 11.7                  | 275                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 90                   | 13.6                  | 302                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 120 - 22 | 120     | 85                   | 11.9                  | 280                   | 100                  | 12 x M12 | 197     | 42      | 63                   | 147     | 124                  | 6.5     | 7.4  |
|              |         | 90                   | 13.8                  | 307                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 95                   | 15.9                  | 334                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 125 - 22 | 125     | 90                   | 14.4                  | 319                   | 100                  | 12 x M12 | 215     | 42      | 63                   | 152     | 129                  | 6.5     | 9.3  |
|              |         | 95                   | 16.5                  | 347                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 100                  | 18.7                  | 375                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 135 - 22 | 135     | 95                   | 18.1                  | 382                   | 160                  | 10 x M14 | 230     | 46      | 69                   | 165     | 139                  | 7.2     | 11.5 |
|              |         | 100                  | 20.6                  | 412                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 110                  | 26.0                  | 473                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 140 - 22 | 140     | 100                  | 19.6                  | 392                   | 160                  | 12 x M14 | 230     | 46      | 70                   | 172     | 146                  | 8.2     | 11.1 |
|              |         | 105                  | 22.1                  | 421                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 115                  | 27.6                  | 481                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 155 - 22 | 155     | 110                  | 26.5                  | 482                   | 160                  | 12 x M14 | 263     | 50      | 74                   | 186     | 159                  | 8.7     | 15.9 |
|              |         | 150                  | 29.5                  | 514                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 125                  | 36.1                  | 578                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 165 - 22 | 165     | 120                  | 37.3                  | 622                   | 240                  | 12 x M16 | 290     | 56      | 85                   | 198     | 169                  | 9       | 22.2 |
|              |         | 160                  | 41.2                  | 659                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 135                  | 49.6                  | 734                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 175 - 22 | 175     | 130                  | 45                    | 692                   | 240                  | 12 x M16 | 300     | 56      | 85                   | 208     | 179                  | 9       | 23.3 |
|              |         | 170                  | 49                    | 730                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 145                  | 58                    | 805                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 185 - 22 | 185     | 140                  | 64                    | 916                   | 240                  | 16 x M16 | 320     | 71      | 102                  | 222     | 191                  | 10      | 33.3 |
|              |         | 180                  | 70                    | 961                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 155                  | 82                    | 1053                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 200 - 22 | 200     | 150                  | 80                    | 1073                  | 240                  | 16 x M16 | 340     | 71      | 102                  | 238     | 206                  | 10      | 36.9 |
|              |         | 195                  | 87                    | 1120                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 190                  | 100                   | 1216                  |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 200 - 22 x 195

## Shrink Disc Type HSD – Series 22

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 220 - 22 | 220     | 160                  | 103                   | 1283                  | 470                  | 15 x M20 | 370     | 93      | 121                  | 270     | 230                  | 12      | 51.5 |
|              |         | 170                  | 119                   | 1395                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 180                  | 136                   | 1509                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 240 - 22 | 240     | 170                  | 122                   | 1439                  | 470                  | 16 x M20 | 405     | 95      | 124                  | 288     | 248                  | 12      | 63.9 |
|              |         | 180                  | 140                   | 1555                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 200                  | 179                   | 1790                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 260 - 22 | 260     | 190                  | 163                   | 1715                  | 470                  | 15 x M20 | 430     | 105     | 136                  | 306     | 268                  | 14      | 77.5 |
|              |         | 200                  | 184                   | 1842                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 220                  | 231                   | 2099                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 280 - 22 | 280     | 210                  | 215                   | 2051                  | 470                  | 16 x M20 | 460     | 114     | 146                  | 328     | 288                  | 16      | 94.7 |
|              |         | 220                  | 240                   | 2186                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 240                  | 295                   | 2458                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 300 - 22 | 300     | 220                  | 270                   | 2456                  | 820                  | 16 x M24 | 485     | 123     | 158                  | 354     | 309                  | 16      | 112  |
|              |         | 230                  | 300                   | 2605                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 250                  | 363                   | 2906                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 320 - 22 | 320     | 240                  | 301                   | 2511                  | 820                  | 18 x M24 | 520     | 125     | 159                  | 380     | 328                  | 14      | 133  |
|              |         | 250                  | 332                   | 2655                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 270                  | 398                   | 2945                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 340 - 22 | 340     | 250                  | 390                   | 3118                  | 820                  | 18 x M24 | 570     | 134     | 171                  | 402     | 349                  | 16      | 177  |
|              |         | 260                  | 427                   | 3283                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 280                  | 506                   | 3617                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 350 - 22 | 350     | 270                  | 493                   | 3649                  | 820                  | 20 x M24 | 580     | 140     | 178                  | 414     | 365                  | 16      | 190  |
|              |         | 280                  | 535                   | 3825                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 290                  | 580                   | 4001                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 360 - 22 | 360     | 270                  | 496                   | 3676                  | 820                  | 20 x M24 | 590     | 140     | 179                  | 416     | 369                  | 17      | 194  |
|              |         | 280                  | 539                   | 3852                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 300                  | 631                   | 4206                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 380 - 22 | 380     | 290                  | 585                   | 4034                  | 1210                 | 18 x M27 | 640     | 146     | 188                  | 444     | 388                  | 19      | 244  |
|              |         | 300                  | 632                   | 4215                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 310                  | 681                   | 4397                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 390 - 22 | 390     | 290                  | 640                   | 4411                  | 1210                 | 18 x M27 | 645     | 146     | 189                  | 454     | 398                  | 20      | 243  |
|              |         | 300                  | 691                   | 4605                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 320                  | 799                   | 4996                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 420 - 22 | 420     | 320                  | 742                   | 4640                  | 1210                 | 18 x M27 | 670     | 167     | 210                  | 490     | 428                  | 20      | 286  |
|              |         | 330                  | 797                   | 4829                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 350                  | 912                   | 5209                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 440 - 22 | 440     | 340                  | 945                   | 5557                  | 1210                 | 21 x M27 | 710     | 174     | 219                  | 506     | 448                  | 22      | 339  |
|              |         | 350                  | 1009                  | 5764                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 370                  | 1143                  | 6181                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 460 - 22 | 460     | 360                  | 1104                  | 6133                  | 1210                 | 21 x M27 | 745     | 174     | 222                  | 534     | 470                  | 25      | 375  |
|              |         | 370                  | 1174                  | 6345                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 390                  | 1320                  | 6771                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 480 - 22 | 480     | 380                  | 1300                  | 6843                  | 1640                 | 20 x M30 | 770     | 192     | 239                  | 552     | 488                  | 22      | 437  |
|              |         | 390                  | 1378                  | 7066                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 410                  | 1541                  | 7516                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 500 - 22 | 500     | 400                  | 1496                  | 7478                  | 1640                 | 21 x M30 | 800     | 192     | 241                  | 572     | 509                  | 24      | 470  |
|              |         | 410                  | 1581                  | 7711                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 430                  | 1759                  | 8180                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 530 - 22 | 530     | 430                  | 1930                  | 8976                  | 1640                 | 24 x M30 | 845     | 213     | 266                  | 606     | 540                  | 29      | 576  |
|              |         | 440                  | 2031                  | 9234                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 460                  | 2243                  | 9752                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 560 - 22 | 560     | 450                  | 2097                  | 9318                  | 1640                 | 24 x M30 | 900     | 213     | 264                  | 632     | 568                  | 27      | 660  |
|              |         | 460                  | 2201                  | 9572                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 480                  | 2420                  | 10081                 |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 280 - 22 x 280

## Shrink Disc Type HSD – Series 22

| Type          | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|---------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 590 - 22  | 590     | 470                  | 2593                  | 11032                 | 1640                 | 28 x M30 | 950     | 230     | 287                  | 664     | 598                  | 32      | 821  |
|               |         | 480                  | 2715                  | 11314                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 500                  | 2970                  | 11881                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 620 - 22  | 620     | 500                  | 2904                  | 11616                 | 1640                 | 28 x M30 | 960     | 254     | 310                  | 706     | 630                  | 30      | 872  |
|               |         | 520                  | 3169                  | 12190                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 540                  | 3447                  | 12767                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 660 - 22  | 660     | 530                  | 3329                  | 12562                 | 2210                 | 24 x M33 | 1020    | 260     | 320                  | 748     | 670                  | 34      | 1004 |
|               |         | 550                  | 3614                  | 13140                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 570                  | 3911                  | 13722                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 700 - 22  | 700     | 560                  | 3804                  | 13585                 | 2210                 | 28 x M33 | 1080    | 260     | 318                  | 780     | 710                  | 32      | 1141 |
|               |         | 580                  | 4109                  | 14169                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 600                  | 4427                  | 14756                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 750 - 22  | 750     | 600                  | 4801                  | 16004                 | 2210                 | 32 x M33 | 1150    | 278     | 344                  | 846     | 760                  | 38      | 1346 |
|               |         | 620                  | 5157                  | 16636                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 650                  | 5716                  | 17589                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 800 - 22  | 800     | 640                  | 5620                  | 17562                 | 2210                 | 30 x M33 | 1230    | 296     | 376                  | 900     | 814                  | 52      | 1646 |
|               |         | 660                  | 6012                  | 18219                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 700                  | 6839                  | 19541                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 850 - 22  | 850     | 650                  | 5942                  | 18282                 | 2850                 | 30 x M36 | 1300    | 315     | 386                  | 950     | 860                  | 43      | 1942 |
|               |         | 700                  | 6994                  | 19983                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 730                  | 7669                  | 21011                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 900 - 22  | 900     | 700                  | 6967                  | 19905                 | 2850                 | 32 x M36 | 1350    | 332     | 413                  | 990     | 920                  | 51      | 2142 |
|               |         | 730                  | 7640                  | 20930                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 760                  | 8345                  | 21961                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 950 - 22  | 950     | 750                  | 8295                  | 22121                 | 2850                 | 36 x M36 | 1400    | 360     | 438                  | 1050    | 970                  | 50      | 2425 |
|               |         | 780                  | 9041                  | 23182                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 820                  | 10088                 | 24606                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 1000 - 22 | 1000    | 800                  | 9568                  | 23920                 | 2850                 | 36 x M36 | 1460    | 380     | 461                  | 1100    | 1020                 | 53      | 2740 |
|               |         | 830                  | 10380                 | 25013                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 860                  | 11228                 | 26111                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 1050 - 22 | 1050    | 850                  | 11241                 | 26449                 | 2850                 | 36 x M36 | 1520    | 400     | 481                  | 1150    | 1070                 | 53      | 3078 |
|               |         | 880                  | 12135                 | 27579                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 920                  | 13383                 | 29092                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 1100 - 22 | 1100    | 900                  | 13045                 | 28990                 | 2850                 | 40 x M36 | 1570    | 430     | 511                  | 1200    | 1120                 | 53      | 3438 |
|               |         | 930                  | 14023                 | 30156                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 960                  | 15038                 | 31328                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 1200 - 22 | 1200    | 940                  | 12902                 | 27452                 | 2850                 | 40 x M36 | 1630    | 460     | 541                  | 1300    | 1220                 | 53      | 3566 |
|               |         | 1000                 | 14803                 | 29606                 |                      |          |         |         |                      |         |                      |         |      |
|               |         | 1050                 | 16493                 | 31415                 |                      |          |         |         |                      |         |                      |         |      |

Further sizes on request, subject to technical changes.

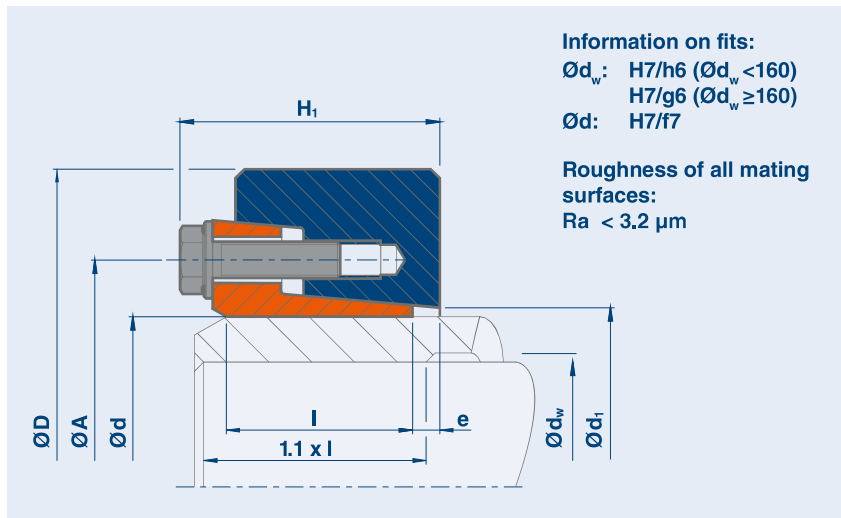
\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 750 - 22 x 750

# STÜWE® Shrink Disc Type HSD

## Series 23



### Code

**$M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

**$P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$

**$M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 23

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 140 - 23 | 140     | 100                  | 26                    | 523                   | 240                  | 8 x M16  | 230     | 60      | 89                   | 174     | 144                  | 10      | 13.6 |
|              | 135     | 105                  | 30                    | 562                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 115                  | 37                    | 641                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 155 - 23 | 155     | 110                  | 36                    | 646                   | 240                  | 9 x M16  | 263     | 66      | 95                   | 194     | 160                  | 11      | 19.8 |
|              | 150     | 115                  | 40                    | 687                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 125                  | 48                    | 772                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 165 - 23 | 165     | 120                  | 50                    | 828                   | 240                  | 12 x M16 | 290     | 72      | 102                  | 200     | 169                  | 10      | 27.7 |
|              | 160     | 125                  | 55                    | 877                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 135                  | 66                    | 977                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 175 - 23 | 175     | 130                  | 61                    | 943                   | 240                  | 12 x M16 | 300     | 72      | 103                  | 210     | 179                  | 11      | 29   |
|              | 170     | 135                  | 67                    | 993                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 145                  | 79                    | 1094                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 185 - 23 | 185     | 140                  | 89                    | 1269                  | 470                  | 12 x M20 | 320     | 92      | 122                  | 232     | 190                  | 12      | 40.1 |
|              | 180     | 145                  | 96                    | 1330                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 155                  | 113                   | 1455                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 200 - 23 | 200     | 150                  | 104                   | 1391                  | 470                  | 12 x M20 | 340     | 92      | 125                  | 246     | 204                  | 15      | 44.5 |
|              | 195     | 155                  | 113                   | 1453                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 165                  | 130                   | 1577                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 220 - 23 | 220     | 160                  | 127                   | 1591                  | 470                  | 15 x M20 | 370     | 117     | 148                  | 266     | 225                  | 14      | 65.3 |
|              |         | 165                  | 137                   | 1661                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 180                  | 169                   | 1876                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 240 - 23 | 240     | 170                  | 157                   | 1847                  | 470                  | 16 x M20 | 405     | 122     | 154                  | 286     | 245                  | 15      | 81.6 |
|              |         | 180                  | 180                   | 1996                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 200                  | 230                   | 2300                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 260 - 23 | 260     | 190                  | 230                   | 2424                  | 470                  | 18 x M20 | 430     | 136     | 171                  | 306     | 266                  | 17      | 101  |
|              |         | 200                  | 260                   | 2600                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 220                  | 325                   | 2957                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 280 - 23 | 280     | 210                  | 306                   | 2918                  | 820                  | 16 x M24 | 460     | 148     | 185                  | 334     | 286                  | 16      | 126  |
|              |         | 220                  | 342                   | 3105                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 240                  | 418                   | 3485                  |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x  $\varnothing d$ ) e.g. HSD 240 - 23 x 240

## Shrink Disc Type HSD – Series 23

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 300 - 23 | 300     | 230                  | 360                   | 3132                  | 820                  | 16 x M24 | 485     | 152     | 191                  | 354     | 306                  | 18      | 140  |
|              |         | 240                  | 398                   | 3314                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 250                  | 437                   | 3498                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 320 - 23 | 320     | 240                  | 430                   | 3580                  | 820                  | 18 x M24 | 520     | 160     | 199                  | 374     | 325                  | 18      | 171  |
|              |         | 250                  | 473                   | 3781                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 270                  | 565                   | 4186                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 340 - 23 | 340     | 250                  | 551                   | 4407                  | 1210                 | 18 x M27 | 560     | 176     | 219                  | 404     | 346                  | 19      | 221  |
|              |         | 260                  | 603                   | 4637                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 280                  | 714                   | 5100                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 360 - 23 | 360     | 270                  | 671                   | 4969                  | 1210                 | 18 x M27 | 590     | 180     | 224                  | 424     | 366                  | 20      | 249  |
|              |         | 280                  | 729                   | 5204                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 300                  | 852                   | 5679                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 390 - 23 | 390     | 290                  | 850                   | 5860                  | 1210                 | 20 x M27 | 650     | 190     | 238                  | 456     | 399                  | 24      | 324  |
|              |         | 300                  | 917                   | 6116                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 320                  | 1061                  | 6633                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 420 - 23 | 420     | 320                  | 1008                  | 6301                  | 1210                 | 21 x M27 | 670     | 214     | 264                  | 486     | 428                  | 26      | 367  |
|              |         | 330                  | 1082                  | 6555                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 350                  | 1237                  | 7067                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 440 - 23 | 440     | 340                  | 1218                  | 7166                  | 1640                 | 21 x M30 | 740     | 229     | 279                  | 514     | 448                  | 25      | 508  |
|              |         | 350                  | 1301                  | 7433                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 370                  | 1475                  | 7972                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 460 - 23 | 460     | 360                  | 1402                  | 7791                  | 1640                 | 21 x M30 | 750     | 226     | 278                  | 534     | 469                  | 28      | 485  |
|              |         | 370                  | 1491                  | 8062                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 390                  | 1678                  | 8606                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 480 - 23 | 480     | 380                  | 1712                  | 9008                  | 1640                 | 21 x M30 | 760     | 246     | 305                  | 552     | 488                  | 33      | 537  |
|              |         | 390                  | 1814                  | 9302                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 410                  | 2028                  | 9893                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 500 - 23 | 500     | 400                  | 1993                  | 9963                  | 1640                 | 24 x M30 | 800     | 246     | 303                  | 572     | 508                  | 31      | 604  |
|              |         | 410                  | 2106                  | 10273                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 430                  | 2342                  | 10895                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 530 - 23 | 530     | 430                  | 2549                  | 11857                 | 2210                 | 21 x M33 | 860     | 276     | 341                  | 616     | 539                  | 36      | 794  |
|              |         | 440                  | 2683                  | 12196                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 460                  | 2962                  | 12878                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 560 - 23 | 560     | 450                  | 2849                  | 12660                 | 2210                 | 24 x M33 | 900     | 280     | 341                  | 646     | 568                  | 34      | 867  |
|              |         | 460                  | 2990                  | 13002                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 480                  | 3285                  | 13689                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 590 - 23 | 590     | 470                  | 3310                  | 14084                 | 2210                 | 24 x M33 | 960     | 296     | 366                  | 672     | 598                  | 40      | 1071 |
|              |         | 480                  | 3467                  | 14446                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 500                  | 3793                  | 15171                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 620 - 23 | 620     | 500                  | 4069                  | 16276                 | 2210                 | 27 x M33 | 1000    | 330     | 401                  | 706     | 630                  | 41      | 1279 |
|              |         | 510                  | 4251                  | 16672                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 540                  | 4824                  | 17866                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 660 - 23 | 660     | 530                  | 4746                  | 17909                 | 2850                 | 28 x M36 | 1070    | 334     | 402                  | 750     | 670                  | 40      | 1475 |
|              |         | 540                  | 4944                  | 18313                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 570                  | 5566                  | 19530                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 700 - 23 | 700     | 560                  | 5316                  | 18985                 | 2850                 | 27 x M36 | 1070    | 334     | 413                  | 800     | 710                  | 45      | 1387 |
|              |         | 570                  | 5525                  | 19387                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 600                  | 6179                  | 20596                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 750 - 23 | 750     | 600                  | 6326                  | 21086                 | 2850                 | 32 x M36 | 1170    | 360     | 431                  | 850     | 760                  | 44      | 1810 |
|              |         | 620                  | 6794                  | 21917                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 650                  | 7530                  | 23169                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 800 - 23 | 800     | 640                  | 7358                  | 22993                 | 2850                 | 32 x M36 | 1280    | 360     | 439                  | 900     | 810                  | 51      | 2290 |
|              |         | 660                  | 7871                  | 23851                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 700                  | 8952                  | 25576                 |                      |          |         |         |                      |         |                      |         |      |

Further sizes on request, subject to technical changes.

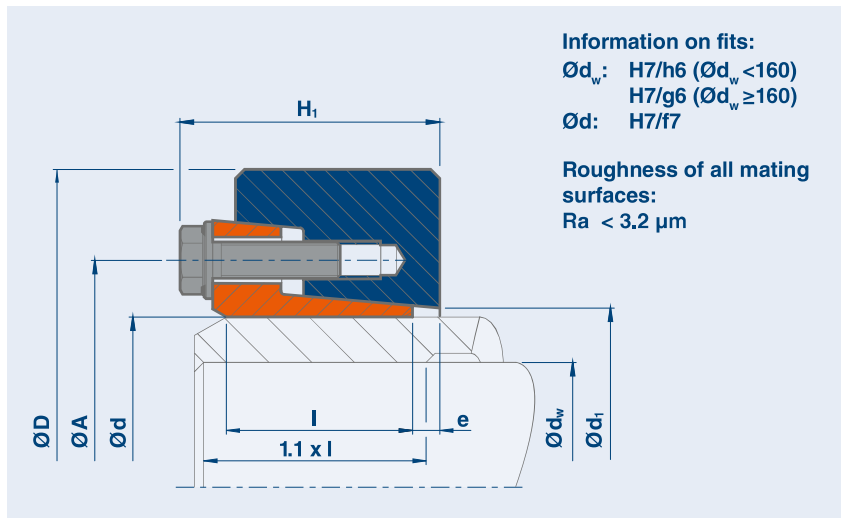
\*Locking bolts: standard DINENISO4014/4017 Grade 10.9, alternative DINENISO4762 Grade 10.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 420 - 23 x 420

# STÜWE® Shrink Disc Type HSD

## Series 81



### Code

**M<sub>t</sub>** Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$

**P<sub>ax</sub>** Maximum transmissible axial load of a shrink disc for  $M_t = 0$

**M<sub>a</sub>** Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 81

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | L<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 50 - 81  | 50      | 38                   | 1.5                   | 79                    | 35                   | 8 x M8   | 90      | 22      | 34                   | 68      | 53                   | 4.4     | 0.9 |
|              |         | 40                   | 1.7                   | 87                    |                      |          |         |         |                      |         |                      |         |     |
|              |         | 42                   | 2.0                   | 94                    |                      |          |         |         |                      |         |                      |         |     |
| HSD 55 - 81  | 55      | 42                   | 1.6                   | 78                    | 35                   | 8 x M8   | 100     | 23      | 36                   | 72      | 58                   | 4.4     | 1.2 |
|              |         | 45                   | 2.0                   | 88                    |                      |          |         |         |                      |         |                      |         |     |
|              |         | 48                   | 2.4                   | 99                    |                      |          |         |         |                      |         |                      |         |     |
| HSD 62 - 81  | 62      | 48                   | 2.2                   | 92                    | 35                   | 9 x M8   | 110     | 23      | 36                   | 80      | 66                   | 4.4     | 1.4 |
|              |         | 60                   | 2.5                   | 98                    |                      |          |         |         |                      |         |                      |         |     |
|              |         | 52                   | 2.7                   | 105                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 68 - 81  | 68      | 50                   | 2.4                   | 94                    | 35                   | 9 x M8   | 115     | 23      | 36                   | 86      | 72                   | 4.4     | 1.4 |
|              |         | 55                   | 3.0                   | 111                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 60                   | 3.8                   | 128                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 75 - 81  | 75      | 55                   | 3.7                   | 135                   | 70                   | 10 x M10 | 138     | 25      | 40                   | 100     | 79                   | 4.6     | 2.5 |
|              |         | 60                   | 4.7                   | 156                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 65                   | 5.8                   | 177                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 80 - 81  | 80      | 60                   | 4.2                   | 141                   | 70                   | 10 x M10 | 141     | 25      | 41                   | 104     | 84                   | 5.6     | 2.5 |
|              |         | 65                   | 5.2                   | 160                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 70                   | 6.3                   | 180                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 90 - 81  | 90      | 65                   | 5.9                   | 182                   | 70                   | 10 x M10 | 155     | 30      | 47                   | 114     | 94                   | 6.1     | 3.5 |
|              |         | 85                   | 7.2                   | 204                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 75                   | 8.5                   | 227                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 100 - 81 | 100     | 70                   | 7.4                   | 213                   | 70                   | 12 x M10 | 170     | 34      | 51                   | 124     | 104                  | 5.1     | 4.7 |
|              |         | 95                   | 8.9                   | 236                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 80                   | 10.4                  | 260                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 110 - 81 | 110     | 80                   | 12.6                  | 314                   | 120                  | 12 x M12 | 185     | 39      | 60                   | 137     | 114                  | 6.5     | 6.3 |
|              |         | 105                  | 14.6                  | 345                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 90                   | 16.9                  | 376                   |                      |          |         |         |                      |         |                      |         |     |
| HSD 120 - 81 | 120     | 85                   | 13.6                  | 320                   | 120                  | 12 x M12 | 197     | 42      | 63                   | 147     | 124                  | 6.5     | 7.8 |
|              |         | 115                  | 15.7                  | 349                   |                      |          |         |         |                      |         |                      |         |     |
|              |         | 95                   | 18.0                  | 379                   |                      |          |         |         |                      |         |                      |         |     |

\*Locking bolts: standard DINENISO4014/4017 Grade 12.9, alternative DINENISO4762 Grade 12.9

M16 and upwards with washers: DIN EN ISO 7416

When ordering please state: (Type x Ød) e.g. HSD 62 - 81 x 60

## Shrink Disc Type HSD – Series 81

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 125 - 81 | 125     | 90                   | 16.4                  | 365                   | 120                  | 12 x M12 | 215     | 42      | 63                   | 152     | 129                  | 6.5     | 9.3  |
|              |         | 95                   | 18.8                  | 395                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 100                  | 21.3                  | 425                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 135 - 81 | 135     | 95                   | 20.3                  | 428                   | 193                  | 10 x M14 | 230     | 46      | 69                   | 165     | 139                  | 7.2     | 11.5 |
|              |         | 130                  | 23.0                  | 461                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 110                  | 29.0                  | 527                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 140 - 81 | 140     | 100                  | 23.0                  | 460                   | 193                  | 12 x M14 | 230     | 46      | 70                   | 172     | 146                  | 8.2     | 11.5 |
|              |         | 105                  | 25.9                  | 493                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 115                  | 32.2                  | 561                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 155 - 81 | 155     | 110                  | 31.1                  | 566                   | 193                  | 12 x M14 | 263     | 50      | 74                   | 186     | 159                  | 8.7     | 16   |
|              |         | 150                  | 34.6                  | 602                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 125                  | 42.1                  | 673                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 165 - 81 | 165     | 120                  | 44.0                  | 734                   | 295                  | 12 x M16 | 290     | 56      | 85                   | 198     | 169                  | 9       | 22.5 |
|              |         | 160                  | 48.5                  | 776                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 135                  | 58.1                  | 860                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 175 - 81 | 175     | 130                  | 54                    | 831                   | 295                  | 12 x M16 | 300     | 56      | 86                   | 208     | 179                  | 10      | 23.5 |
|              |         | 170                  | 59                    | 874                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 145                  | 70                    | 960                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 185 - 81 | 185     | 140                  | 81                    | 1153                  | 295                  | 16 x M16 | 320     | 71      | 103                  | 222     | 191                  | 11      | 33.5 |
|              |         | 180                  | 88                    | 1207                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 155                  | 102                   | 1315                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 200 - 81 | 200     | 150                  | 96                    | 1280                  | 295                  | 16 x M16 | 340     | 71      | 103                  | 238     | 206                  | 11      | 37   |
|              |         | 195                  | 103                   | 1335                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 190                  | 119                   | 1446                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 220 - 81 | 220     | 160                  | 129                   | 1614                  | 570                  | 15 x M20 | 370     | 93      | 122                  | 270     | 230                  | 13      | 52   |
|              |         | 170                  | 149                   | 1751                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 180                  | 170                   | 1888                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 240 - 81 | 240     | 170                  | 151                   | 1778                  | 570                  | 16 x M20 | 405     | 95      | 125                  | 288     | 248                  | 13      | 64   |
|              |         | 180                  | 172                   | 1916                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 200                  | 220                   | 2195                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 260 - 81 | 260     | 190                  | 212                   | 2234                  | 570                  | 15 x M20 | 430     | 105     | 137                  | 306     | 268                  | 15      | 78   |
|              |         | 200                  | 239                   | 2391                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 220                  | 298                   | 2707                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 280 - 81 | 280     | 210                  | 279                   | 2657                  | 570                  | 16 x M20 | 460     | 114     | 149                  | 328     | 288                  | 19      | 95   |
|              |         | 220                  | 311                   | 2823                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 240                  | 379                   | 3158                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 300 - 81 | 300     | 220                  | 332                   | 3016                  | 900                  | 16 x M24 | 485     | 123     | 158                  | 354     | 308                  | 16      | 113  |
|              |         | 230                  | 367                   | 3194                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 250                  | 444                   | 3554                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 320 - 81 | 320     | 240                  | 404                   | 3371                  | 900                  | 18 x M24 | 520     | 125     | 160                  | 380     | 328                  | 15      | 133  |
|              |         | 250                  | 444                   | 3554                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 270                  | 530                   | 3924                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 340 - 81 | 340     | 250                  | 489                   | 3909                  | 900                  | 18 x M24 | 570     | 134     | 171                  | 402     | 349                  | 17      | 178  |
|              |         | 260                  | 534                   | 4109                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 280                  | 632                   | 4511                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 360 - 81 | 360     | 270                  | 625                   | 4626                  | 900                  | 20 x M24 | 590     | 140     | 179                  | 416     | 369                  | 19      | 195  |
|              |         | 280                  | 678                   | 4841                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 300                  | 791                   | 5275                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 390 - 81 | 390     | 290                  | 780                   | 5377                  | 1310                 | 18 x M27 | 650     | 146     | 190                  | 454     | 398                  | 21      | 249  |
|              |         | 300                  | 841                   | 5608                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 320                  | 972                   | 6074                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 420 - 81 | 420     | 320                  | 969                   | 6055                  | 1310                 | 18 x M27 | 680     | 167     | 211                  | 490     | 428                  | 22      | 300  |
|              |         | 330                  | 1038                  | 6292                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 350                  | 1185                  | 6769                  |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 12.9, alternative DINENISO4762 Grade 12.9

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 360 - 81 x 360



## Shrink Disc Type HSD – Series 81

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 440 - 81 | 440     | 340                  | 1212                  | 7129                  | 1310                 | 21 x M27 | 725     | 174     | 222                  | 506     | 448                  | 25      | 363  |
|              |         | 350                  | 1293                  | 7386                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 370                  | 1462                  | 7904                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 460 - 81 | 460     | 360                  | 1397                  | 7759                  | 1310                 | 21 x M27 | 745     | 174     | 225                  | 534     | 470                  | 28      | 376  |
|              |         | 370                  | 1484                  | 8020                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 390                  | 1666                  | 8545                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 480 - 81 | 480     | 380                  | 1658                  | 8729                  | 1800                 | 20 x M30 | 790     | 192     | 243                  | 552     | 488                  | 26      | 476  |
|              |         | 390                  | 1756                  | 9006                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 410                  | 1961                  | 9564                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 500 - 81 | 500     | 400                  | 1888                  | 9441                  | 1800                 | 21 x M30 | 835     | 192     | 244                  | 572     | 508                  | 27      | 540  |
|              |         | 410                  | 1994                  | 9727                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 430                  | 2215                  | 10304                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 530 - 81 | 530     | 430                  | 2397                  | 11148                 | 1800                 | 24 x M30 | 890     | 213     | 270                  | 606     | 541                  | 33      | 680  |
|              |         | 440                  | 2521                  | 11461                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 460                  | 2781                  | 12090                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 560 - 81 | 560     | 450                  | 2546                  | 11314                 | 1800                 | 24 x M30 | 920     | 213     | 268                  | 632     | 568                  | 31      | 710  |
|              |         | 460                  | 2672                  | 11617                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 480                  | 2934                  | 12225                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 590 - 81 | 590     | 470                  | 2969                  | 12634                 | 1800                 | 28 x M30 | 960     | 230     | 288                  | 664     | 598                  | 33      | 830  |
|              |         | 480                  | 3109                  | 12955                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 500                  | 3400                  | 13600                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 620 - 81 | 620     | 500                  | 3404                  | 13617                 | 1800                 | 28 x M30 | 970     | 254     | 314                  | 706     | 630                  | 34      | 900  |
|              |         | 520                  | 3713                  | 14281                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 540                  | 4036                  | 14949                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 660 - 81 | 660     | 530                  | 4034                  | 15222                 | 2400                 | 24 x M33 | 1060    | 260     | 326                  | 748     | 670                  | 38      | 1120 |
|              |         | 550                  | 4373                  | 15902                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 570                  | 4726                  | 16584                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 700 - 81 | 700     | 560                  | 4605                  | 16447                 | 2400                 | 28 x M33 | 1140    | 260     | 321                  | 780     | 710                  | 35      | 1320 |
|              |         | 580                  | 4969                  | 17134                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 600                  | 5347                  | 17823                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 750 - 81 | 750     | 600                  | 5806                  | 19354                 | 2400                 | 32 x M33 | 1200    | 278     | 345                  | 846     | 760                  | 42      | 1540 |
|              |         | 620                  | 6231                  | 20099                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 650                  | 6896                  | 21219                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 800 - 81 | 800     | 640                  | 6798                  | 21244                 | 2400                 | 32 x M33 | 1270    | 296     | 376                  | 900     | 810                  | 54      | 1835 |
|              |         | 660                  | 7265                  | 22016                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 700                  | 8249                  | 23569                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 850 - 81 | 850     | 650                  | 7214                  | 22197                 | 3100                 | 30 x M36 | 1340    | 315     | 392                  | 950     | 860                  | 49      | 2154 |
|              |         | 700                  | 8470                  | 24199                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 730                  | 9274                  | 25408                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 900 - 81 | 900     | 700                  | 8453                  | 24152                 | 3100                 | 32 x M36 | 1400    | 332     | 419                  | 990     | 915                  | 56      | 2433 |
|              |         | 730                  | 9256                  | 25360                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 760                  | 10098                 | 26573                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 950 - 81 | 950     | 750                  | 10060                 | 26826                 | 3100                 | 36 x M36 | 1450    | 360     | 444                  | 1050    | 965                  | 56      | 2752 |
|              |         | 780                  | 10949                 | 28076                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 820                  | 12197                 | 29750                 |                      |          |         |         |                      |         |                      |         |      |

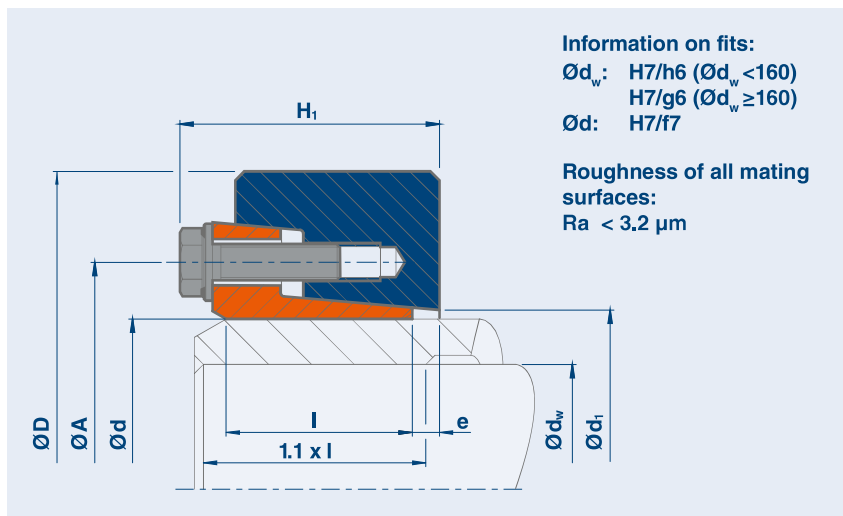
Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 12.9, alternative DINENISO4762 Grade 12.9 M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 950 - 81 x 950

# STÜWE® Shrink Disc Type HSD

## Series 83



### Code

- $M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$
- $P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$
- $M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD – Series 83

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 140 - 83 | 140     | 100                  | 30                    | 608                   | 295                  | 8 x M16  | 240     | 60      | 89                   | 174     | 144                  | 10      | 15.5 |
|              | 135     | 105                  | 34                    | 652                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 115                  | 43                    | 742                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 155 - 83 | 155     | 110                  | 45                    | 816                   | 295                  | 9 x M16  | 263     | 66      | 95                   | 194     | 160                  | 11      | 20   |
|              | 150     | 115                  | 50                    | 867                   |                      |          |         |         |                      |         |                      |         |      |
|              |         | 125                  | 61                    | 970                   |                      |          |         |         |                      |         |                      |         |      |
| HSD 165 - 83 | 165     | 120                  | 64                    | 1062                  | 295                  | 12 x M16 | 290     | 72      | 103                  | 200     | 169                  | 11      | 28   |
|              | 160     | 125                  | 70                    | 1122                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 135                  | 84                    | 1244                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 175 - 83 | 175     | 130                  | 74                    | 1132                  | 295                  | 12 x M16 | 300     | 72      | 104                  | 210     | 179                  | 12      | 29   |
|              | 170     | 135                  | 80                    | 1191                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 145                  | 95                    | 1309                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 185 - 83 | 185     | 140                  | 106                   | 1519                  | 570                  | 12 x M20 | 320     | 92      | 124                  | 232     | 189                  | 14      | 40.5 |
|              | 180     | 145                  | 115                   | 1592                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 155                  | 135                   | 1737                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 200 - 83 | 200     | 150                  | 127                   | 1696                  | 570                  | 12 x M20 | 340     | 92      | 124                  | 246     | 204                  | 14      | 44.5 |
|              | 195     | 155                  | 137                   | 1769                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 165                  | 158                   | 1917                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 220 - 83 | 220     | 160                  | 163                   | 2042                  | 570                  | 15 x M20 | 370     | 117     | 149                  | 266     | 224                  | 15      | 65.5 |
|              |         | 165                  | 176                   | 2128                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 180                  | 215                   | 2391                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 240 - 83 | 240     | 170                  | 209                   | 2459                  | 570                  | 16 x M20 | 405     | 122     | 154                  | 286     | 244                  | 15      | 82   |
|              |         | 180                  | 238                   | 2647                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 200                  | 303                   | 3029                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 260 - 83 | 260     | 190                  | 288                   | 3036                  | 570                  | 18 x M20 | 430     | 136     | 173                  | 306     | 265                  | 19      | 100  |
|              |         | 200                  | 325                   | 3247                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 220                  | 404                   | 3675                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 280 - 83 | 280     | 210                  | 361                   | 3437                  | 900                  | 16 x M24 | 460     | 148     | 186                  | 334     | 285                  | 17      | 126  |
|              |         | 220                  | 402                   | 3654                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 240                  | 491                   | 4092                  |                      |          |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade 12.9, alternative DINENISO4762 Grade 12.9  
M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 200 - 83 x 195

## Shrink Disc Type HSD – Series 83

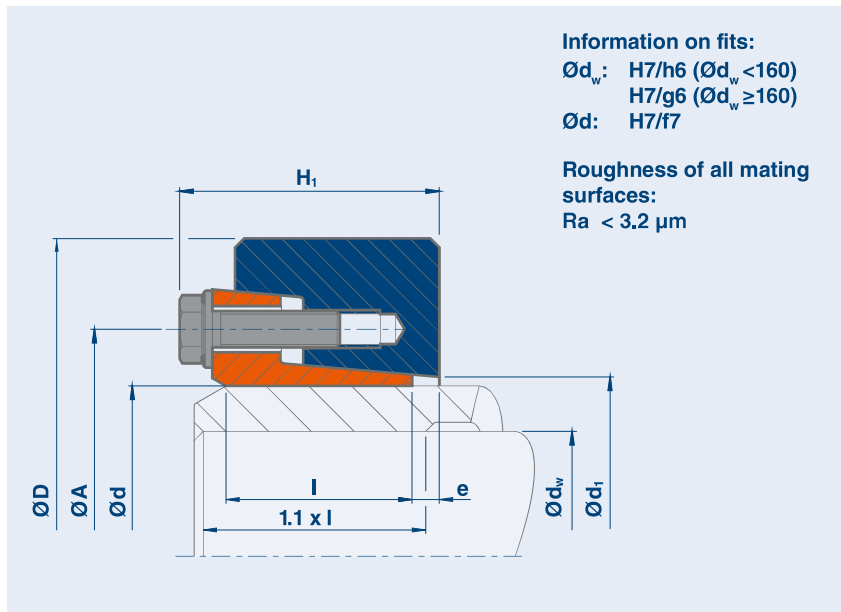
| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*       | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|----------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 300 - 83 | 300     | 230                  | 465                   | 4047                  | 900                  | 16 x M24 | 485     | 152     | 190                  | 354     | 305                  | 18      | 141  |
|              |         | 240                  | 513                   | 4273                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 250                  | 563                   | 4501                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 320 - 83 | 320     | 240                  | 510                   | 4250                  | 900                  | 18 x M24 | 520     | 160     | 200                  | 374     | 325                  | 19      | 171  |
|              |         | 250                  | 560                   | 4484                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 270                  | 669                   | 4955                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 340 - 83 | 340     | 250                  | 664                   | 5316                  | 1310                 | 18 x M27 | 570     | 176     | 221                  | 404     | 345                  | 21      | 234  |
|              |         | 260                  | 726                   | 5587                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 280                  | 859                   | 6135                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 360 - 83 | 360     | 270                  | 763                   | 5655                  | 1310                 | 18 x M27 | 590     | 180     | 226                  | 424     | 365                  | 22      | 249  |
|              |         | 280                  | 829                   | 5921                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 300                  | 969                   | 6457                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 390 - 83 | 390     | 290                  | 972                   | 6703                  | 1310                 | 20 x M27 | 650     | 190     | 240                  | 456     | 398                  | 26      | 325  |
|              |         | 300                  | 1049                  | 6994                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 320                  | 1213                  | 7580                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 420 - 83 | 420     | 320                  | 1297                  | 8105                  | 1310                 | 21 x M27 | 690     | 214     | 268                  | 486     | 428                  | 30      | 404  |
|              |         | 330                  | 1389                  | 8421                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 350                  | 1585                  | 9057                  |                      |          |         |         |                      |         |                      |         |      |
| HSD 440 - 83 | 440     | 340                  | 1585                  | 9323                  | 1800                 | 21 x M30 | 750     | 225     | 284                  | 514     | 448                  | 31      | 530  |
|              |         | 350                  | 1690                  | 9659                  |                      |          |         |         |                      |         |                      |         |      |
|              |         | 370                  | 1912                  | 10336                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 460 - 83 | 460     | 360                  | 1747                  | 9706                  | 1800                 | 21 x M30 | 760     | 226     | 280                  | 534     | 468                  | 30      | 520  |
|              |         | 370                  | 1856                  | 10035                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 390                  | 2086                  | 10697                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 480 - 83 | 480     | 380                  | 2105                  | 11076                 | 1800                 | 21 x M30 | 800     | 246     | 309                  | 552     | 488                  | 37      | 640  |
|              |         | 390                  | 2229                  | 11430                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 410                  | 2489                  | 12142                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 500 - 83 | 500     | 400                  | 2552                  | 12762                 | 1800                 | 24 x M30 | 850     | 246     | 306                  | 572     | 508                  | 34      | 740  |
|              |         | 410                  | 2695                  | 13147                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 430                  | 2993                  | 13922                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 530 - 83 | 530     | 430                  | 3108                  | 14455                 | 2400                 | 21 x M33 | 890     | 280     | 346                  | 616     | 538                  | 40      | 900  |
|              |         | 440                  | 3270                  | 14861                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 460                  | 3606                  | 15678                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 560 - 83 | 560     | 450                  | 3452                  | 15341                 | 2400                 | 24 x M33 | 940     | 280     | 344                  | 646     | 568                  | 36      | 1000 |
|              |         | 460                  | 3622                  | 15749                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 480                  | 3976                  | 16567                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 590 - 83 | 590     | 470                  | 4027                  | 17138                 | 2400                 | 24 x M33 | 980     | 296     | 369                  | 666     | 600                  | 41      | 1150 |
|              |         | 480                  | 4217                  | 17571                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 500                  | 4610                  | 18439                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 620 - 83 | 620     | 500                  | 5040                  | 20160                 | 2400                 | 27 x M33 | 1020    | 330     | 406                  | 706     | 630                  | 46      | 1370 |
|              |         | 510                  | 5263                  | 20641                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 540                  | 5964                  | 22089                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 660 - 83 | 660     | 530                  | 5833                  | 22013                 | 3100                 | 28 x M36 | 1090    | 334     | 405                  | 750     | 670                  | 43      | 1570 |
|              |         | 540                  | 6075                  | 22501                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 570                  | 6832                  | 23972                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 700 - 83 | 700     | 560                  | 6485                  | 23160                 | 3100                 | 27 x M36 | 1160    | 334     | 416                  | 800     | 710                  | 48      | 1810 |
|              |         | 570                  | 6738                  | 23642                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 600                  | 7528                  | 25095                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 750 - 83 | 750     | 600                  | 7671                  | 25569                 | 3100                 | 30 x M36 | 1220    | 370     | 446                  | 850     | 760                  | 48      | 2140 |
|              |         | 620                  | 8234                  | 26562                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 650                  | 9119                  | 28059                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 800 - 83 | 800     | 640                  | 9085                  | 28390                 | 3100                 | 36 x M36 | 1340    | 360     | 460                  | 900     | 810                  | 60      | 2651 |
|              |         | 660                  | 9709                  | 29422                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 700                  | 11024                 | 31497                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 850 - 83 | 850     | 650                  | 8924                  | 27459                 | 3100                 | 36 x M36 | 1440    | 380     | 469                  | 950     | 860                  | 60.5    | 3271 |
|              |         | 700                  | 10474                 | 29927                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 730                  | 11467                 | 31416                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 900 - 83 | 900     | 700                  | 10259                 | 29310                 | 3100                 | 38 x M36 | 1470    | 400     | 493                  | 1010    | 912                  | 64      | 3370 |
|              |         | 730                  | 11233                 | 30774                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 760                  | 12253                 | 32245                 |                      |          |         |         |                      |         |                      |         |      |
| HSD 950 - 83 | 950     | 750                  | 12147                 | 32392                 | 3100                 | 40 x M36 | 1520    | 430     | 525                  | 1050    | 970                  | 66.5    | 3805 |
|              |         | 780                  | 13220                 | 33898                 |                      |          |         |         |                      |         |                      |         |      |
|              |         | 820                  | 14726                 | 35917                 |                      |          |         |         |                      |         |                      |         |      |

Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade 12.9, alternative DINENISO4762 Grade 12.9 M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 950 - 83 x 950

# STÜWE® Shrink disc Type HSD Rust-free Series 20 - 1.4122



## Code

- $M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$
- $P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$
- $M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")
- $\mu_w$**  The transmissible loads on rust-free materials are calculated using the coefficient of friction  $\mu_w = 0.1$

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD Rust-free – Series 20 - 1.4122

| Type        | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*     | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|-------------|---------|----------------------|-----------------------|-----------------------|----------------------|--------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 24 - 20 | 24      | 20                   | 0.08                  | 8                     | 10                   | 6 x M6 | 50      | 11.5    | 18                   | 38      | 25                   | 1.8     | 0.2  |
|             |         | 21                   | 0.10                  | 10                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 22                   | 0.12                  | 11                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 29 - 20 | 29      | 25                   | 0.13                  | 10                    | 10                   | 6 x M6 | 58      | 12.5    | 18                   | 44      | 31                   | 1.8     | 0.2  |
|             |         | 26                   | 0.15                  | 11                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 27                   | 0.17                  | 13                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 35 - 20 | 34      | 29                   | 0.15                  | 10                    | 10                   | 5 x M6 | 64      | 12.5    | 18                   | 52      | 38                   | 1.8     | 0.25 |
|             |         | 30                   | 0.17                  | 11                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 32                   | 0.21                  | 13                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 40 - 20 | 38      | 34                   | 0.19                  | 11                    | 10                   | 6 x M6 | 69      | 12.2    | 18                   | 55      | 43                   | 2.5     | 0.3  |
|             |         | 40                   | 0.21                  | 12                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 36                   | 0.23                  | 13                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 46 - 20 | 46      | 38                   | 0.24                  | 13                    | 10                   | 6 x M6 | 80      | 13      | 23                   | 62      | 50                   | 2.5     | 0.5  |
|             |         | 47                   | 0.30                  | 15                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 42                   | 0.36                  | 17                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 51 - 20 | 51      | 44                   | 0.35                  | 16                    | 10                   | 8 x M6 | 86      | 13      | 23                   | 67      | 54                   | 2.5     | 0.5  |
|             |         | 45                   | 0.38                  | 17                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 47                   | 0.45                  | 19                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 56 - 20 | 55      | 48                   | 0.37                  | 15                    | 10                   | 8 x M6 | 90      | 13      | 23                   | 72      | 59                   | 2.9     | 0.6  |
|             |         | 56                   | 0.43                  | 17                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 57                   | 0.49                  | 19                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 61 - 20 | 61      | 53                   | 0.47                  | 18                    | 10                   | 8 x M6 | 96      | 13      | 24                   | 76      | 63                   | 2.9     | 0.7  |
|             |         | 55                   | 0.55                  | 20                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 57                   | 0.63                  | 22                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 66 - 20 | 65      | 58                   | 0.51                  | 18                    | 10                   | 8 x M6 | 100     | 13      | 24                   | 82      | 68                   | 2.9     | 0.7  |
|             |         | 66                   | 0.58                  | 19                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 62                   | 0.66                  | 21                    |                      |        |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade A4-80 M16 and upwards with washers:  
DIN EN ISO 7416, **When ordering please state:** (Type x  $\varnothing d$ ) e.g. HSD 61 - 20 x 61 - 61 - 1.4122

## Shrink Disc Type HSD Rust-free – Series 20 - 1.4122

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 73 - 20  | 70      | 63                   | 0.63                  | 20                    | 24                   | 9 x M8  | 115     | 18      | 30                   | 94      | 77                   | 3.2     | 1.2 |
|              | 72      | 65                   | 0.72                  | 22                    |                      |         |         |         |                      |         |                      |         |     |
|              | 73      | 68                   | 0.87                  | 26                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 78 - 20  | 76      | 68                   | 0.78                  | 23                    | 24                   | 9 x M8  | 120     | 18      | 30                   | 100     | 82                   | 3.2     | 1.3 |
|              | 78      | 70                   | 0.87                  | 25                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 72                   | 0.98                  | 27                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 83 - 20  | 81      | 73                   | 0.87                  | 24                    | 24                   | 9 x M8  | 125     | 18      | 30                   | 104     | 87                   | 3.2     | 1.3 |
|              | 83      | 75                   | 0.96                  | 26                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 77                   | 1.07                  | 28                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 88 - 20  | 86      | 78                   | 0.98                  | 25                    | 24                   | 9 x M8  | 130     | 18      | 30                   | 110     | 92                   | 3.5     | 1.4 |
|              | 88      | 80                   | 1.08                  | 27                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 82                   | 1.19                  | 29                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 93 - 20  | 93      | 83                   | 1.16                  | 28                    | 24                   | 9 x M8  | 135     | 18      | 31                   | 114     | 97                   | 3.5     | 1.4 |
|              | 94      | 85                   | 1.28                  | 30                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 87                   | 1.40                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 98 - 20  | 96      | 88                   | 1.18                  | 27                    | 24                   | 9 x M8  | 140     | 18      | 31                   | 120     | 102                  | 3.5     | 1.5 |
|              | 98      | 90                   | 1.30                  | 29                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 92                   | 1.42                  | 31                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 103 - 20 | 103     | 93                   | 1.44                  | 31                    | 24                   | 10 x M8 | 145     | 18      | 31                   | 124     | 107                  | 3.5     | 1.5 |
|              |         | 95                   | 1.56                  | 33                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 97                   | 1.69                  | 35                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 108 - 20 | 106     | 98                   | 1.46                  | 30                    | 24                   | 10 x M8 | 150     | 18      | 31                   | 128     | 112                  | 3.5     | 1.6 |
|              | 108     | 100                  | 1.58                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 102                  | 1.71                  | 34                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 115 - 20 | 112     | 103                  | 1.99                  | 39                    | 24                   | 10 x M8 | 160     | 22      | 35                   | 134     | 118                  | 3.9     | 2.2 |
|              | 115     | 105                  | 2.14                  | 41                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 108                  | 2.38                  | 44                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 120 - 20 | 120     | 108                  | 2.24                  | 42                    | 24                   | 10 x M8 | 164     | 22      | 35                   | 140     | 124                  | 3.9     | 2.2 |
|              |         | 110                  | 2.40                  | 44                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 113                  | 2.65                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 125 - 20 | 125     | 113                  | 2.35                  | 42                    | 24                   | 12 x M8 | 169     | 22      | 35                   | 144     | 129                  | 3.9     | 2.3 |
|              |         | 115                  | 2.50                  | 44                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 118                  | 2.75                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 130 - 20 | 130     | 118                  | 2.56                  | 43                    | 24                   | 12 x M8 | 174     | 22      | 35                   | 150     | 134                  | 3.9     | 2.3 |
|              |         | 120                  | 2.72                  | 45                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 123                  | 2.97                  | 48                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 135 - 20 | 135     | 123                  | 2.69                  | 44                    | 24                   | 12 x M8 | 179     | 22      | 35                   | 154     | 139                  | 3.9     | 2.3 |
|              |         | 125                  | 2.86                  | 46                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 128                  | 3.13                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 140 - 20 | 138     | 128                  | 2.71                  | 42                    | 24                   | 12 x M8 | 184     | 22      | 36                   | 160     | 144                  | 4.5     | 2.5 |
|              | 140     | 130                  | 2.88                  | 44                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 132                  | 3.05                  | 46                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 145 - 20 | 145     | 133                  | 3.02                  | 45                    | 24                   | 12 x M8 | 189     | 22      | 36                   | 164     | 149                  | 4.5     | 2.6 |
|              |         | 135                  | 3.20                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 137                  | 3.38                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 150 - 20 | 150     | 138                  | 3.25                  | 47                    | 24                   | 12 x M8 | 194     | 22      | 36                   | 170     | 154                  | 4.5     | 2.6 |
|              |         | 140                  | 3.43                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 142                  | 3.61                  | 51                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 160 - 20 | 160     | 146                  | 3.41                  | 47                    | 24                   | 12 x M8 | 204     | 22      | 36                   | 180     | 164                  | 4.5     | 2.7 |
|              |         | 150                  | 3.77                  | 50                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 152                  | 3.96                  | 52                    |                      |         |         |         |                      |         |                      |         |     |

\*Locking bolts: standard DINENISO4014/4017 Grade A4-80 M16 and upwards with washers:  
DIN EN ISO 7416, **When ordering please state:** (Type x Ød) e.g. HSD 140 - 20 x 138 - 1.4122

## Shrink Disc Type HSD Rust-free – Series 20 - 1.4122

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 170 - 20 | 166     | 156                  | 3.45                  | 44                    | 24                   | 12 x M8 | 214     | 22      | 36                   | 190     | 174                  | 4.5     | 3   |
|              | 170     | 160                  | 3.81                  | 48                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 162                  | 3.99                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 182 - 20 | 182     | 166                  | 4.88                  | 59                    | 24                   | 14 x M8 | 230     | 25      | 41                   | 206     | 188                  | 5.6     | 3.9 |
|              |         | 170                  | 5.36                  | 63                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 172                  | 5.61                  | 65                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 192 - 20 | 189     | 176                  | 5.03                  | 57                    | 24                   | 14 x M8 | 240     | 25      | 41                   | 216     | 198                  | 5.6     | 4   |
|              | 192     | 180                  | 5.50                  | 61                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 182                  | 5.74                  | 63                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 202 - 20 | 202     | 186                  | 5.66                  | 61                    | 24                   | 15 x M8 | 250     | 25      | 41                   | 224     | 208                  | 5.6     | 4.7 |
|              |         | 190                  | 6.18                  | 65                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 192                  | 6.45                  | 67                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 212 - 20 | 212     | 196                  | 6.27                  | 64                    | 24                   | 15 x M8 | 260     | 25      | 41                   | 234     | 218                  | 5.6     | 4.7 |
|              |         | 200                  | 6.81                  | 68                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 202                  | 7.08                  | 70                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 222 - 20 | 222     | 206                  | 6.73                  | 65                    | 24                   | 16 x M8 | 270     | 25      | 42                   | 244     | 228                  | 6.5     | 5   |
|              |         | 210                  | 7.27                  | 69                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 212                  | 7.54                  | 71                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 232 - 20 | 232     | 216                  | 7.18                  | 66                    | 24                   | 16 x M8 | 280     | 25      | 42                   | 254     | 238                  | 6.5     | 5   |
|              |         | 220                  | 7.73                  | 70                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 222                  | 8.01                  | 72                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 242 - 20 | 242     | 226                  | 7.63                  | 68                    | 24                   | 16 x M8 | 290     | 25      | 42                   | 264     | 248                  | 6.5     | 5   |
|              |         | 230                  | 8.19                  | 71                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 232                  | 8.47                  | 73                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 252 - 20 | 252     | 234                  | 7.84                  | 67                    | 24                   | 16 x M8 | 300     | 25      | 42                   | 274     | 258                  | 6.5     | 5.2 |
|              |         | 238                  | 8.39                  | 71                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 240                  | 8.67                  | 72                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 262 - 20 | 262     | 244                  | 8.30                  | 68                    | 24                   | 18 x M8 | 310     | 25      | 42                   | 286     | 268                  | 6.5     | 5.4 |
|              |         | 248                  | 8.86                  | 71                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 250                  | 9.14                  | 73                    |                      |         |         |         |                      |         |                      |         |     |

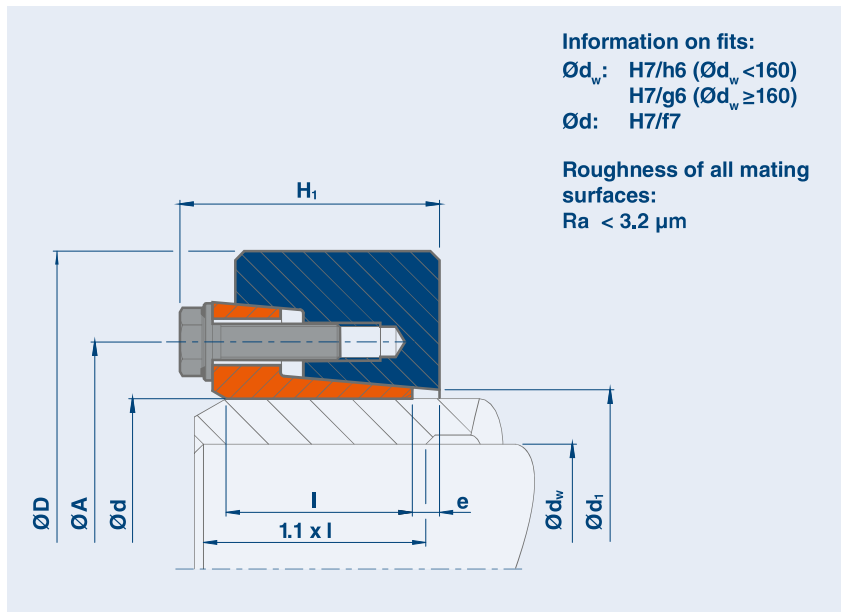
Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade A4-80

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x Ød) e.g. HSD 202 - 20 x 202 - 61 - 1.4122

# STÜWE® Shrink disc Type HSD Rust-free Series 20 - 1.4462



## Code

- $M_t$**  Maximum transmissible torque of a shrink disc for  $P_{ax} = 0$
- $P_{ax}$**  Maximum transmissible axial load of a shrink disc for  $M_t = 0$
- $M_a$**  Required tightening torque of the locking bolts (see also "Installation and Removal Instructions")
- $\mu_w$**  The transmissible loads on rust-free materials are calculated using the coefficient of friction  $\mu_w = 0.1$

Dimensions  $H_1$  and  $e$  apply to untightened units.

## Shrink Disc Type HSD Rust-free – Series 20 - 1.4462

| Type        | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*     | D<br>mm | I<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg   |
|-------------|---------|----------------------|-----------------------|-----------------------|----------------------|--------|---------|---------|----------------------|---------|----------------------|---------|------|
| HSD 24 - 20 | 24      | 20                   | 0.06                  | 6                     | 10                   | 6 x M6 | 50      | 11.5    | 18                   | 38      | 25                   | 1.8     | 0.2  |
|             |         | 21                   | 0.07                  | 7                     |                      |        |         |         |                      |         |                      |         |      |
|             |         | 22                   | 0.09                  | 8                     |                      |        |         |         |                      |         |                      |         |      |
| HSD 29 - 20 | 29      | 25                   | 0.09                  | 8                     | 10                   | 6 x M6 | 58      | 12.5    | 18                   | 44      | 31                   | 1.8     | 0.2  |
|             |         | 26                   | 0.11                  | 9                     |                      |        |         |         |                      |         |                      |         |      |
|             |         | 27                   | 0.13                  | 10                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 35 - 20 | 34      | 29                   | 0.11                  | 8                     | 10                   | 6 x M6 | 64      | 12.5    | 18                   | 52      | 38                   | 1.8     | 0.25 |
|             |         | 35                   | 0.13                  | 8                     |                      |        |         |         |                      |         |                      |         |      |
|             |         | 32                   | 0.16                  | 10                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 40 - 20 | 38      | 34                   | 0.14                  | 8                     | 10                   | 6 x M6 | 69      | 12.2    | 18                   | 55      | 43                   | 2.5     | 0.3  |
|             |         | 40                   | 0.16                  | 9                     |                      |        |         |         |                      |         |                      |         |      |
|             |         | 36                   | 0.18                  | 10                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 46 - 20 | 46      | 38                   | 0.16                  | 8                     | 10                   | 6 x M6 | 80      | 13      | 23                   | 62      | 50                   | 2.5     | 0.5  |
|             |         | 47                   | 0.20                  | 10                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 42                   | 0.25                  | 12                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 51 - 20 | 51      | 44                   | 0.24                  | 11                    | 10                   | 8 x M6 | 86      | 13      | 23                   | 67      | 54                   | 2.5     | 0.5  |
|             |         | 45                   | 0.26                  | 12                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 47                   | 0.32                  | 14                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 56 - 20 | 55      | 48                   | 0.24                  | 10                    | 10                   | 8 x M6 | 90      | 13      | 23                   | 72      | 59                   | 2.9     | 0.6  |
|             |         | 56                   | 0.29                  | 12                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 57                   | 0.35                  | 13                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 61 - 20 | 61      | 53                   | 0.32                  | 12                    | 10                   | 8 x M6 | 96      | 13      | 24                   | 76      | 63                   | 2.9     | 0.7  |
|             |         | 55                   | 0.38                  | 14                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 57                   | 0.45                  | 16                    |                      |        |         |         |                      |         |                      |         |      |
| HSD 66 - 20 | 65      | 58                   | 0.34                  | 12                    | 10                   | 8 x M6 | 100     | 13      | 24                   | 82      | 68                   | 2.9     | 0.7  |
|             |         | 66                   | 0.40                  | 13                    |                      |        |         |         |                      |         |                      |         |      |
|             |         | 62                   | 0.46                  | 15                    |                      |        |         |         |                      |         |                      |         |      |

\*Locking bolts: standard DINENISO4014/4017 Grade A4-80

M16 and upwards with washers: DIN EN ISO 7416

**When ordering please state:** (Type x  $\varnothing d$ ) e.g. HSD 61 - 20 x 61 - 61 - 1.4462



## Shrink Disc Type HSD Rust-free – Series 20 - 1.4462

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>1</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 73 - 20  | 70      | 63                   | 0.38                  | 12                    | 24                   | 9 x M8  | 115     | 18      | 30                   | 94      | 77                   | 3.2     | 1.2 |
|              | 72      | 65                   | 0.46                  | 14                    |                      |         |         |         |                      |         |                      |         |     |
|              | 73      | 68                   | 0.58                  | 17                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 78 - 20  | 76      | 68                   | 0.51                  | 15                    | 24                   | 9 x M8  | 120     | 18      | 30                   | 100     | 82                   | 3.2     | 1.3 |
|              | 78      | 70                   | 0.59                  | 17                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 72                   | 0.67                  | 19                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 83 - 20  | 81      | 73                   | 0.57                  | 16                    | 24                   | 9 x M8  | 125     | 18      | 30                   | 104     | 87                   | 3.2     | 1.3 |
|              | 83      | 75                   | 0.65                  | 17                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 77                   | 0.74                  | 19                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 88 - 20  | 86      | 78                   | 0.66                  | 17                    | 24                   | 9 x M8  | 130     | 18      | 30                   | 110     | 92                   | 3.5     | 1.4 |
|              | 88      | 80                   | 0.74                  | 19                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 82                   | 0.83                  | 20                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 93 - 20  | 93      | 83                   | 0.82                  | 20                    | 24                   | 9 x M8  | 135     | 18      | 31                   | 114     | 97                   | 3.5     | 1.4 |
|              | 94      | 85                   | 0.92                  | 22                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 87                   | 1.02                  | 24                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 98 - 20  | 96      | 88                   | 0.82                  | 19                    | 24                   | 9 x M8  | 140     | 18      | 31                   | 120     | 102                  | 3.5     | 1.5 |
|              | 98      | 90                   | 0.91                  | 20                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 92                   | 1.02                  | 22                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 103 - 20 | 103     | 93                   | 1.01                  | 22                    | 24                   | 10 x M8 | 145     | 18      | 31                   | 124     | 107                  | 3.5     | 1.5 |
|              |         | 95                   | 1.11                  | 23                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 97                   | 1.22                  | 25                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 108 - 20 | 106     | 98                   | 1.03                  | 21                    | 24                   | 10 x M8 | 150     | 18      | 31                   | 128     | 112                  | 3.5     | 1.6 |
|              | 108     | 100                  | 1.13                  | 23                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 102                  | 1.24                  | 24                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 115 - 20 | 112     | 103                  | 1.39                  | 27                    | 24                   | 10 x M8 | 160     | 22      | 35                   | 134     | 118                  | 3.9     | 2.2 |
|              | 115     | 105                  | 1.52                  | 29                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 108                  | 1.72                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 120 - 20 | 120     | 108                  | 1.65                  | 31                    | 24                   | 10 x M8 | 164     | 22      | 35                   | 140     | 124                  | 3.9     | 2.2 |
|              |         | 110                  | 1.79                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 113                  | 2.00                  | 35                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 125 - 20 | 125     | 113                  | 1.72                  | 30                    | 24                   | 12 x M8 | 169     | 22      | 35                   | 144     | 129                  | 3.9     | 2.3 |
|              |         | 115                  | 1.86                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 118                  | 2.07                  | 35                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 130 - 20 | 130     | 118                  | 1.85                  | 31                    | 24                   | 12 x M8 | 174     | 22      | 35                   | 150     | 134                  | 3.9     | 2.3 |
|              |         | 120                  | 1.99                  | 33                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 123                  | 2.20                  | 36                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 135 - 20 | 135     | 123                  | 1.89                  | 31                    | 24                   | 12 x M8 | 179     | 22      | 35                   | 154     | 139                  | 3.9     | 2.3 |
|              |         | 125                  | 2.04                  | 33                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 128                  | 2.27                  | 35                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 140 - 20 | 138     | 128                  | 1.93                  | 30                    | 24                   | 12 x M8 | 184     | 22      | 36                   | 160     | 144                  | 4.5     | 2.5 |
|              | 140     | 130                  | 2.08                  | 32                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 132                  | 2.23                  | 34                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 145 - 20 | 145     | 133                  | 2.21                  | 33                    | 24                   | 12 x M8 | 189     | 22      | 36                   | 164     | 149                  | 4.5     | 2.6 |
|              |         | 135                  | 2.36                  | 35                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 137                  | 2.52                  | 37                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 150 - 20 | 150     | 138                  | 2.34                  | 34                    | 24                   | 12 x M8 | 194     | 22      | 36                   | 170     | 154                  | 4.5     | 2.6 |
|              |         | 140                  | 2.50                  | 36                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 142                  | 2.66                  | 37                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 160 - 20 | 160     | 146                  | 2.46                  | 34                    | 24                   | 12 x M8 | 204     | 22      | 36                   | 180     | 164                  | 4.5     | 2.7 |
|              |         | 150                  | 2.77                  | 37                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 152                  | 2.93                  | 39                    |                      |         |         |         |                      |         |                      |         |     |

\*Locking bolts: DIN EN ISO 4014/4017 grade A4-80 as standard,  
M16 and upwards with washers: DIN EN ISO 7416,  
**When ordering please state:** (Type x Ød) e.g. HSD 140 - 20 x 138 - 1.4462

## Shrink Disc Type HSD Rust-free – Series 20 - 1.4462

| Type         | d<br>mm | d <sub>w</sub><br>mm | M <sub>t</sub><br>kNm | P <sub>ax</sub><br>kN | M <sub>a</sub><br>Nm | B*      | D<br>mm | l<br>mm | H <sub>1</sub><br>mm | A<br>mm | d <sub>i</sub><br>mm | e<br>mm | kg  |
|--------------|---------|----------------------|-----------------------|-----------------------|----------------------|---------|---------|---------|----------------------|---------|----------------------|---------|-----|
| HSD 170 - 20 | 166     | 156                  | 2.43                  | 31                    | 24                   | 12 x M8 | 214     | 22      | 36                   | 190     | 174                  | 4.5     | 3   |
|              | 170     | 160                  | 2.73                  | 34                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 162                  | 2.89                  | 36                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 182 - 20 | 182     | 166                  | 3.59                  | 43                    | 24                   | 14 x M8 | 230     | 25      | 41                   | 206     | 188                  | 5.6     | 3.9 |
|              |         | 170                  | 4.00                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 172                  | 4.22                  | 49                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 192 - 20 | 189     | 176                  | 3.64                  | 41                    | 24                   | 14 x M8 | 240     | 25      | 41                   | 216     | 198                  | 5.6     | 4   |
|              | 192     | 180                  | 4.05                  | 45                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 182                  | 4.26                  | 47                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 202 - 20 | 202     | 186                  | 4.11                  | 44                    | 24                   | 15 x M8 | 250     | 25      | 41                   | 224     | 208                  | 5.6     | 4.7 |
|              |         | 190                  | 4.56                  | 48                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 192                  | 4.79                  | 50                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 212 - 20 | 212     | 196                  | 4.54                  | 46                    | 24                   | 15 x M8 | 260     | 25      | 41                   | 234     | 218                  | 5.6     | 4.7 |
|              |         | 200                  | 5.00                  | 50                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 202                  | 5.24                  | 52                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 222 - 20 | 222     | 206                  | 4.90                  | 48                    | 24                   | 16 x M8 | 270     | 25      | 42                   | 244     | 228                  | 6.5     | 5   |
|              |         | 210                  | 5.36                  | 51                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 212                  | 5.61                  | 53                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 232 - 20 | 232     | 216                  | 5.35                  | 50                    | 24                   | 16 x M8 | 280     | 25      | 42                   | 254     | 238                  | 6.5     | 5   |
|              |         | 220                  | 5.83                  | 53                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 222                  | 6.07                  | 55                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 242 - 20 | 242     | 226                  | 5.71                  | 51                    | 24                   | 16 x M8 | 290     | 25      | 42                   | 264     | 248                  | 6.5     | 5   |
|              |         | 230                  | 6.19                  | 54                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 232                  | 6.44                  | 56                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 252 - 20 | 252     | 234                  | 5.76                  | 49                    | 24                   | 16 x M8 | 300     | 25      | 42                   | 274     | 258                  | 6.5     | 5.2 |
|              |         | 238                  | 6.23                  | 52                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 240                  | 6.48                  | 54                    |                      |         |         |         |                      |         |                      |         |     |
| HSD 262 - 20 | 262     | 244                  | 6.12                  | 50                    | 24                   | 18 x M8 | 310     | 25      | 42                   | 286     | 268                  | 6.5     | 5.4 |
|              |         | 248                  | 6.60                  | 53                    |                      |         |         |         |                      |         |                      |         |     |
|              |         | 250                  | 6.84                  | 55                    |                      |         |         |         |                      |         |                      |         |     |

Further sizes on request, subject to technical changes.

\*Locking bolts: standard DINENISO4014/4017 Grade A4-80

M16 and upwards with washers: DIN EN ISO 7416

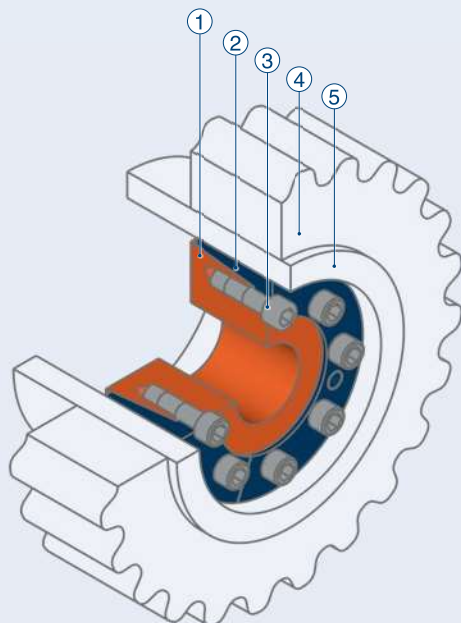
**When ordering please state:** (Type x Ød) e.g. HSD 202 - 20 x 202 - 61 - 1.4462

You have not found what you are looking for in our comprehensive range of standard-products?  
We will be happy to promptly prepare any form of custom-made product and development innovation  
even using special materials such as 1.3974. Please feel free to contact us.

# SHRINK DISC TYPE HSD – SPECIAL SOLUTIONS

## STÜWE® Individual solution UHSD

Example: Internal locking frictional connection

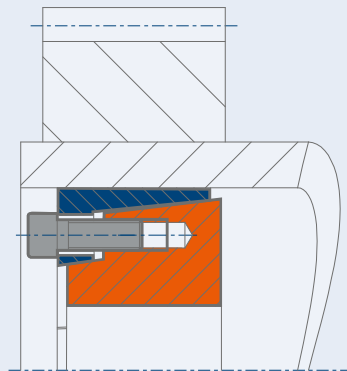


### Benefits

- Smaller installation space
- Greater freedom for design
- Outside the flow of loads

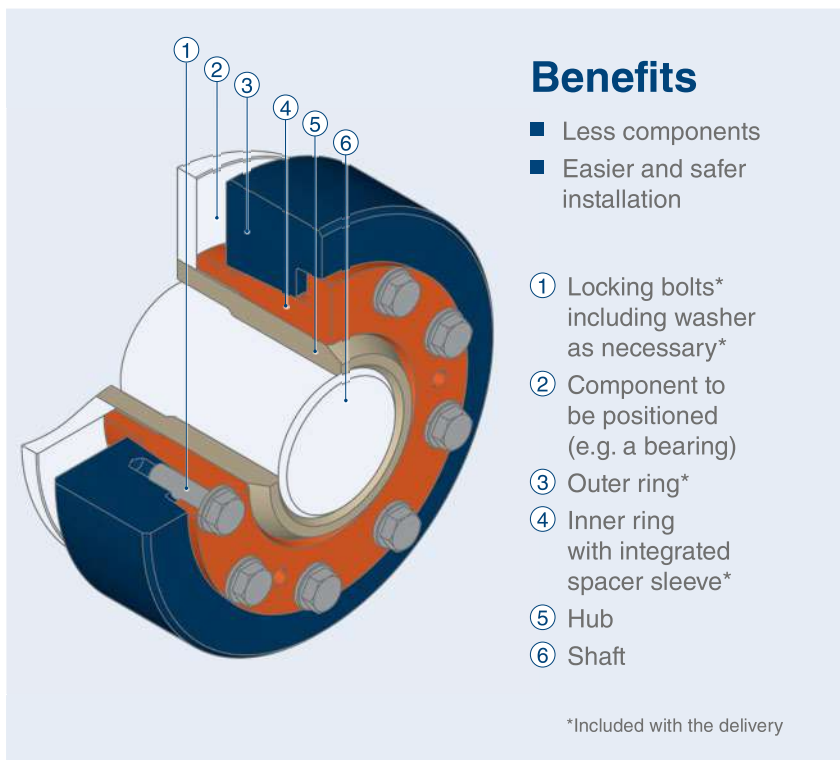
- ① Inner ring\*
- ② Outer ring\*
- ③ Locking bolts\* including washer as necessary\*
- ④ Hub (for example, a gearwheel)
- ⑤ Shaft

\*Included with the delivery



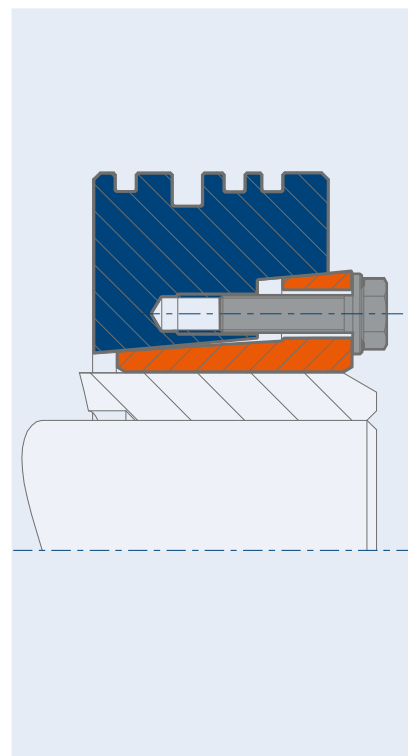
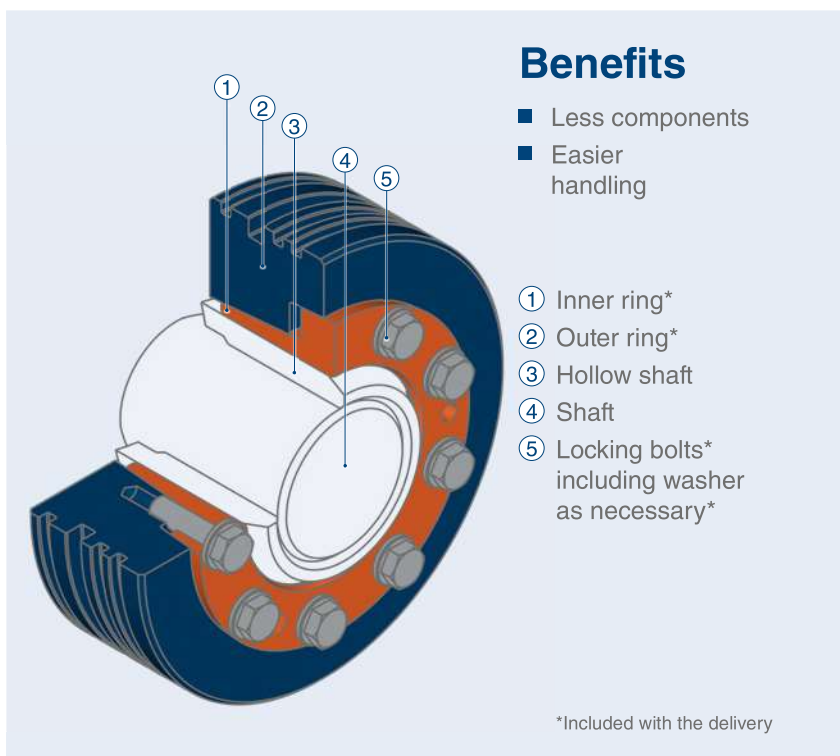
# STÜWE® HSD with integrated spacer

Integration of partial solutions into the connection element



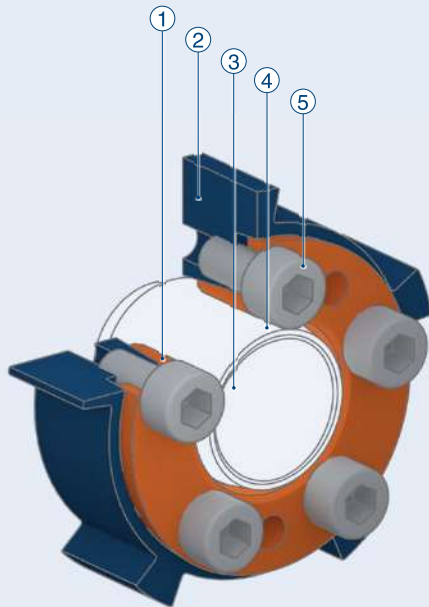
# STÜWE® Double-function HSD with Grooves

Connection element and seal



# STÜWE® HSD with External Teeth

Connection element with mating external contour

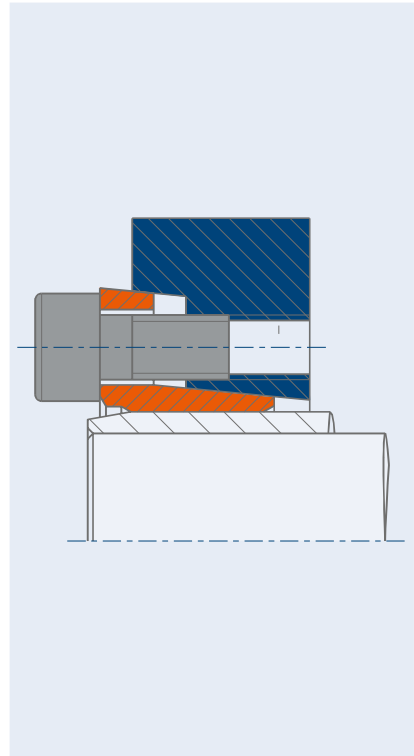


## Benefits

- Less components
- Teeth integrated in the component
- Design of the external contour can be varied

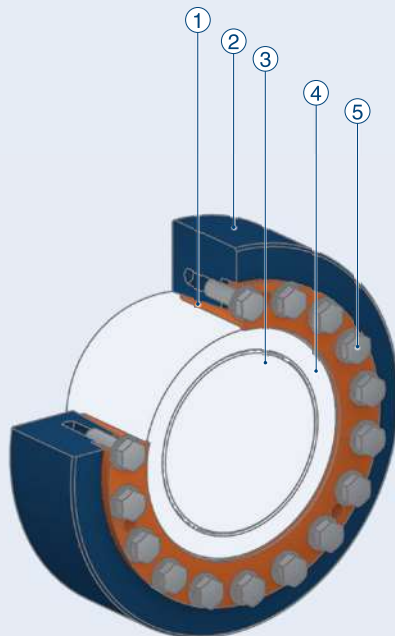
- ① Inner ring\*
- ② Outer ring\*
- ③ Shaft
- ④ Hub
- ⑤ Locking bolts\* including washer as necessary\*

\*Included with the delivery



# STÜWE® HSD with Centring Device

Connection element with centring device on the inner ring



## Benefits

- Easier positioning and centring
- Exact alignment is not necessary

- ① Inner ring\*
- ② Outer ring\*
- ③ Shaft
- ④ Hub
- ⑤ Locking bolts\* including washer as necessary\*

\*Included with the delivery

