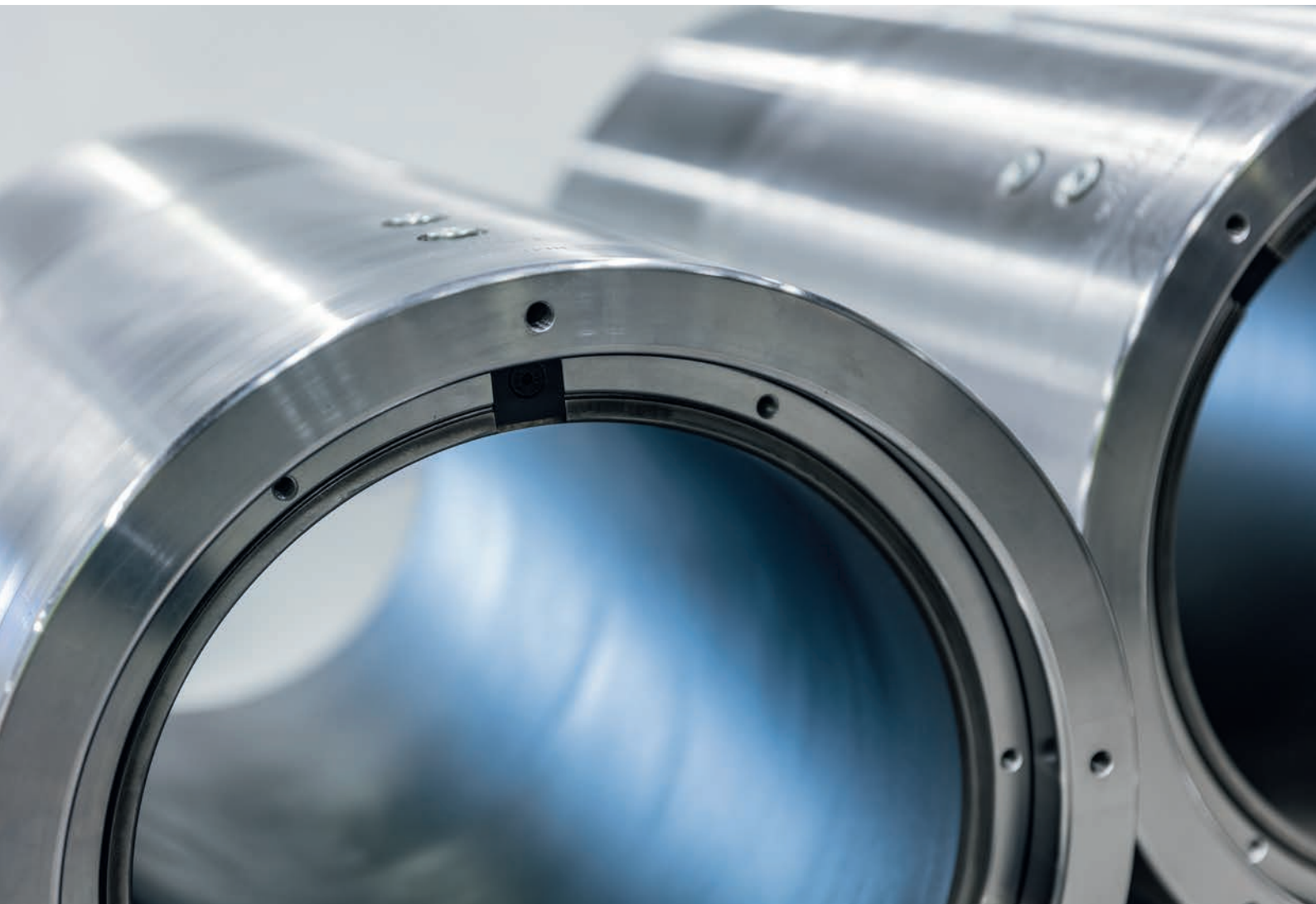
voith.com

VOITH

# Perfectly connected
## Connection couplings





Torque capacity up to

**26 000**

kNm

Number of countries with Voith service network **60**

**2 500**

Voith Torque limiting and connection couplings produced per year

# Leading the way in connection technology

Reliable, competent, close at hand: Voith offers a diverse range of services and products for business and industry worldwide. Complete solutions are available for all kinds of fields, including paper machines, high-value rotating equipment, drivelines, and hydropower equipment and services for industrial facilities. As a global company we are able to draw on our knowledge and expertise from every continent to provide suitable results that allow your business to meet its full potential.

### Our connection technology

Torque limiting, process improving and connection couplings from Voith help protect high-value rotating equipment components and increase productivity in a variety of industries. Our customer-adapted solutions optimize performance of drivelines in mining machinery, steel mills, turbines, compressors, ships, high speed trains and recycling plants all over the world. Cutting-edge research keeps our solutions matching the demands of today's rapidly advancing driveline technology.

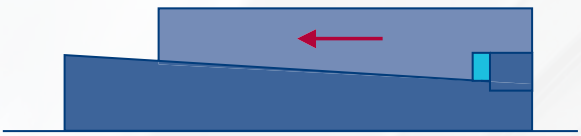



> **"We are always looking for new ways to improve our products."**
>
> **Erik Nordström**
> Senior technical adviser torque limiting and connection couplings

# Superior connection
# HyCon | HyGrip | HyLoc

**Providing a backlash-free, frictional, quick-setting/releasing shaft-hub connection, our Hycon connection couplings. The setting or releasing occurs hydraulically, depending on the application, with various operating principles available, all of which offers the advantage of a backlash-free pressure connection.**

## HyCon

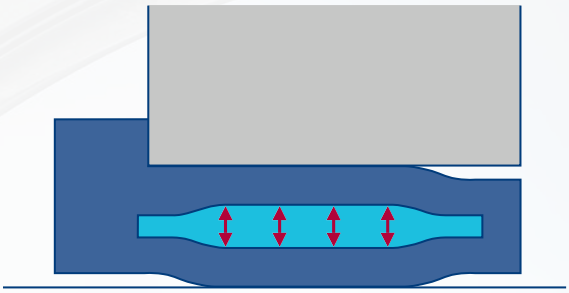


- Mechanical shaft-shaft/shaft-flange connection
- Hydraulically set and released
- No oil pressure is required for transmitting torque

The inner and outer tapered sleeves are hydraulically pushed toward each other to produce a radial force. Subsequently, a frictional connection is created between the shaft, coupling, and shaft/flange.

During setting and releasing, the shaft hub remains static; only the tapered outer sleeve moves.

## HyGrip



- Hydraulic hollow sleeve-shaft-hub connection
- Pumped up hydraulically
- Oil pressure is required for transmitting torque

The hydraulic expansion of the coupling unit creates the frictional connection between the shaft, coupling, and hub. The hydraulic pressure creates a radial force within the coupling.

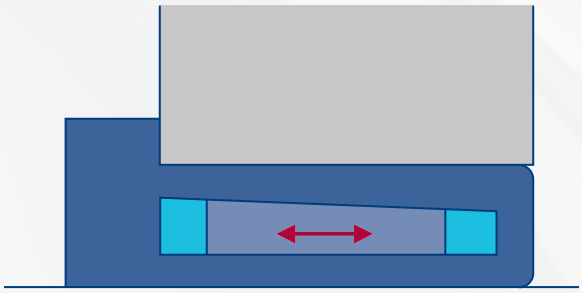
During setting and releasing, the shaft hub remains static.

# High friction coating doubles the torque capacity

**Providing the most compact and effective connection coupling, a thin coat of tungsten carbide can ensure improved fatigue and wear resistance.**

When tungsten carbide is applied to the inner surface of the coupling, this high friction coating (HFC) strengthens the bond between the shaft and sleeve, doubling the torque capacity. HFC is standard on all HyCon and optional on HyGrip and HyLoc.

## HyLoc

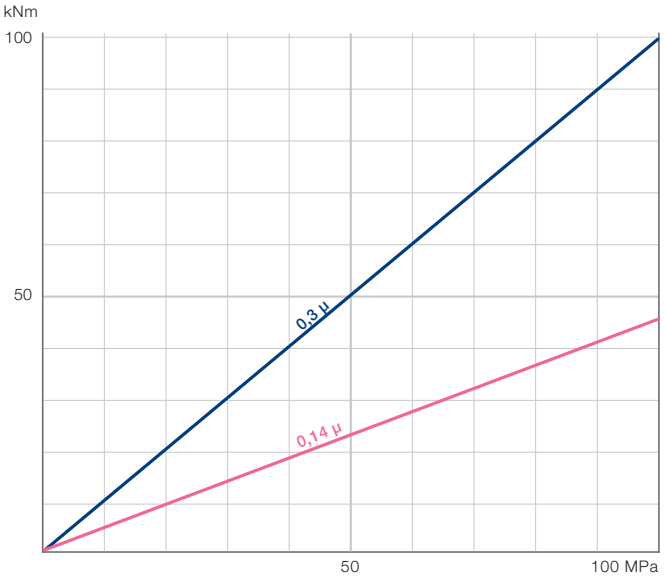


- Mechanical shaft-hub connection
- Hydraulically set and released
- Oil pressure is not required for transmitting torque

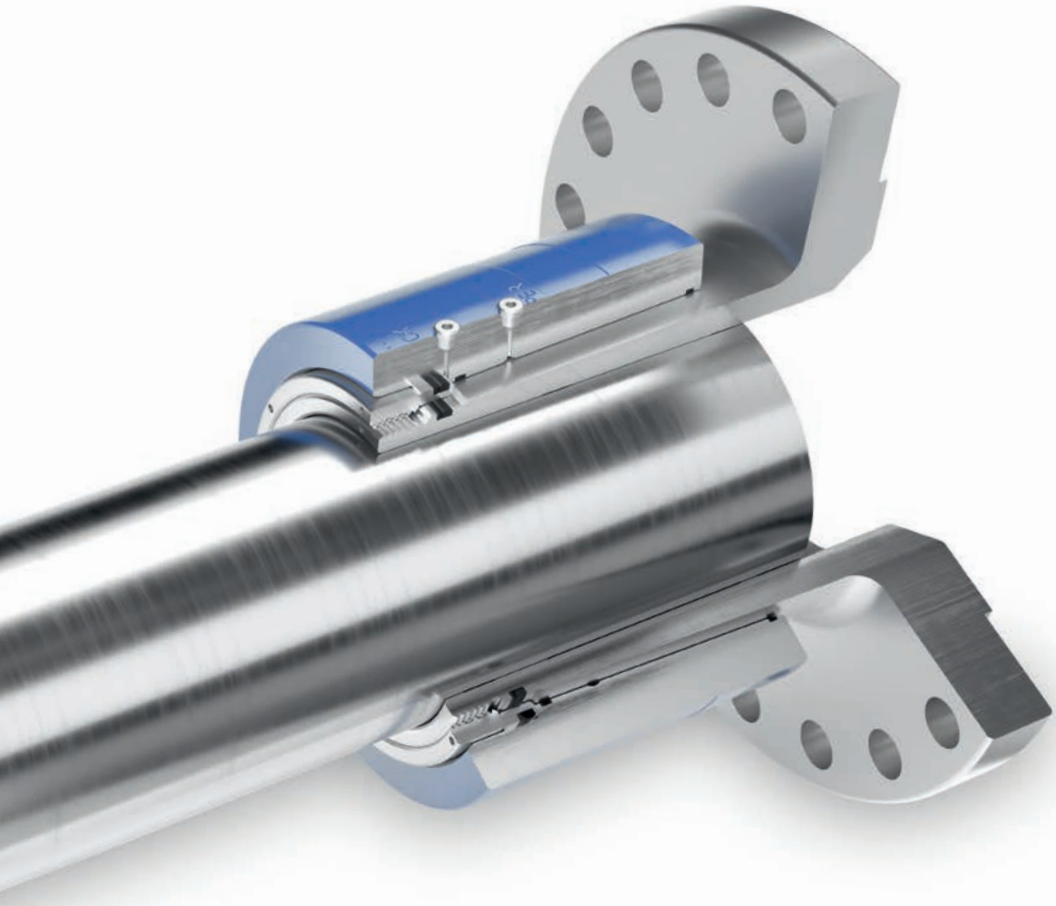
A radial force is created by hydraulically pushing a tapered sleeve inside a coupling unit. Subsequently, a frictional connection is made between the shaft, coupling, and hub.

During setting and releasing, the shaft hub remains static; only the tapered conical sleeve inside the coupling moves.

### HFC doubles the friction coefficient




The coupling friction surfaces are treated, which doubles the friction factor providing the corresponding increase of the transmittable torque.



**HyCon connection couplings can be used in:**

- Tankers and carriers
- Offshore supply vessels
- Cargo ships
- Container ships
- Dredgers
- Car transport ships
- Cruise ships and ferries
- Mega yachts
- Pilot boats



# HyCon connection technology for outstanding performance

DNV GL approved HyCon connection couplings ensure a reliable low-weight friction connection with outstanding performance and torque capacity. HyCon is easily installed without oil leakage and is safe both for people and environment. With an increased payload capacity due to at least 40% reduced system weight*, the installation, setting and releasing is fast, easy and secure.

### Operation

The HyCon connection coupling consists mainly of a tapered parts sleeve and a tapered hub. To secure the shaft, the tapered hub is hydraulically pushed up onto the tapered sleeve. The pressure assembly creates a tight grip that holds the shaft. When the coupling is pressurized, the tapered surfaces are totally separated from each other. The seals on both sides of the coupling ensure that no oil leak can occur. This smart design minimizes the environmental impact.

*compared to conventional connection couplings without HFC.

### Customer benefits

+ Increased payload capacity due to at least 40% reduced system weight
+ Minimized installation time
+ Only one pump for setting and releasing
+ Easy to position axially and radially
+ Shock load resistant
+ Simple clamping process optimal for applications that require frequent changes
+ Safe work environment
+ Low maintenance need

### Design features

- Minimized hydrodynamic turbulence if located outboard
- Tailor-made design for solid or hollow shafts
- Torque capacity available from 1 to 20 000 kNm
- Shaft-shaft and shaft-flange connections
- Backlash-free connection
- Flange bolts can be tightened before drive up
- Sealed tapered surfaces ensure protection against seawater and oil leakage


509



Photo by Marine Jet Power AB

**HyCon connection couplings are built for maximum performance and safety in the toughest of environments.**

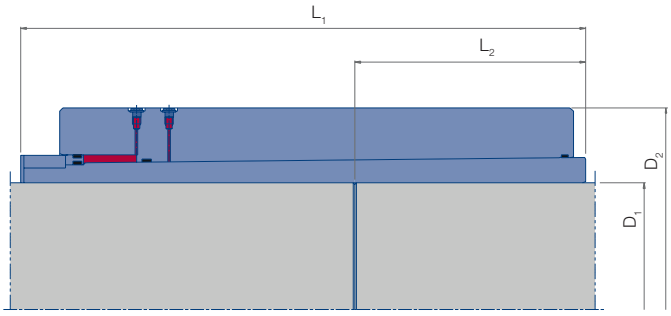
# HyCon S series

HyCon basic dimensions and specifications.

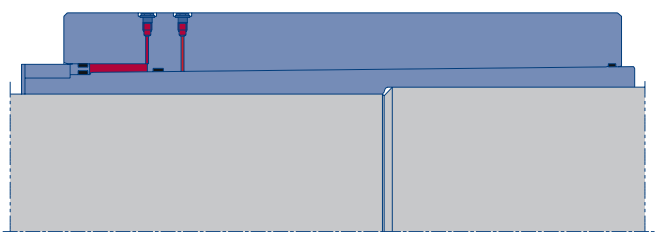
| Size HyCon S | T [kNm] | D1 [mm] | D2 [mm] | DD1 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|
| 80 mm | 15.6 | 80 | 125 | 0.06 | 142 | 51 | 8 | 0.022 |
| 90 mm | 22.6 | 90 | 140 | 0.06 | 157 | 58 | 11 | 0.039 |
| 100 mm | 31.3 | 100 | 152 | 0.06 | 173 | 64 | 14 | 0.058 |
| 110 mm | 40.6 | 110 | 166 | 0.08 | 189 | 70 | 18 | 0.089 |
| 120 mm | 53.5 | 120 | 181 | 0.08 | 206 | 76 | 23 | 0.138 |
| 130 mm | 68.9 | 130 | 196 | 0.08 | 222 | 83 | 29 | 0.204 |
| 140 mm | 86.5 | 140 | 212 | 0.08 | 244 | 89 | 38 | 0.308 |
| 150 mm | 107 | 150 | 227 | 0.08 | 257 | 95 | 46 | 0.426 |
| 160 mm | 131 | 160 | 240 | 0.08 | 272 | 101 | 54 | 0.558 |
| 170 mm | 157 | 170 | 256 | 0.085 | 285 | 107 | 64 | 0.760 |
| 180 mm | 187 | 180 | 272 | 0.09 | 298 | 113 | 76 | 1.016 |
| 190 mm | 220 | 190 | 286 | 0.095 | 314 | 119 | 89 | 1.304 |
| 200 mm | 256 | 200 | 300 | 0.10 | 327 | 125 | 101 | 1.638 |
| 220 mm | 341 | 220 | 331 | 0.11 | 354 | 137 | 134 | 2.636 |
| 240 mm | 443 | 240 | 360 | 0.12 | 382 | 149 | 170 | 3.968 |
| 260 mm | 563 | 260 | 391 | 0.13 | 409 | 162 | 215 | 5.927 |
| 280 mm | 704 | 280 | 420 | 0.14 | 437 | 174 | 264 | 8.410 |
| 300 mm | 865 | 300 | 450 | 0.15 | 465 | 186 | 323 | 11.792 |
| 320 mm | 1050 | 320 | 479 | 0.16 | 491 | 198 | 385 | 15.952 |
| 340 mm | 1260 | 340 | 510 | 0.17 | 519 | 211 | 462 | 21.714 |
| 360 mm | 1490 | 360 | 540 | 0.18 | 545 | 223 | 544 | 28.660 |
| 380 mm | 1760 | 380 | 570 | 0.19 | 571 | 235 | 635 | 37.276 |
| 400 mm | 2050 | 400 | 600 | 0.20 | 597 | 247 | 736 | 47.850 |
| 500 mm | 3450 | 500 | 720 | 0.25 | 766 | 325 | 1204 | 118 |
| 600 mm | 5978 | 600 | 865 | 0.30 | 909 | 390 | 2061 | 289 |
| 700 mm | 9490 | 700 | 1009 | 0.35 | 1041 | 450 | 3238 | 623 |
| 800 mm | 14219 | 800 | 1153 | 0.40 | 1104 | 500 | 4770 | 1174 |

T: Torque m: Mass J: Mass moment of inertia DD1: Nominal assembly clearance shaft-bore

## HyCon S/SX standard dimensions




## HyCon S/SX for different shaft diameters



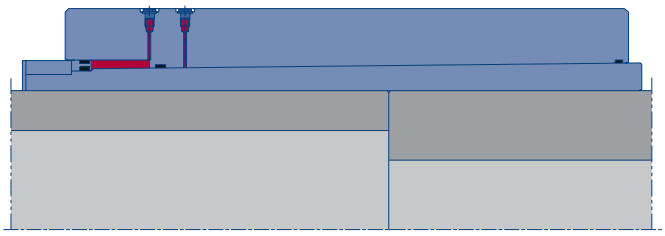
# HyCon SX series

HyCon basic dimensions and specifications.

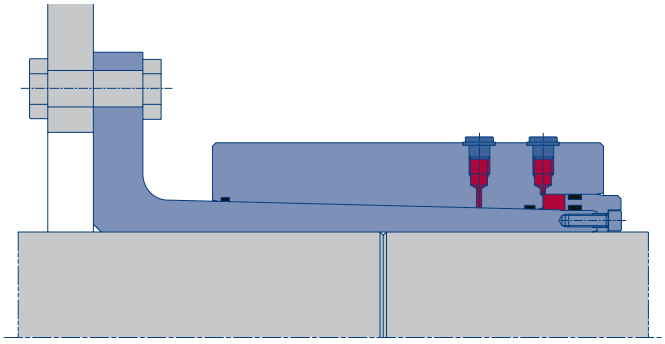
| Size HyCon SX | T [kNm] | D1 [mm] | D2 [mm] | DD1 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|
| 80 mm | 28.7 | 80 | 136 | 0.06 | 253 | 102 | 19 | 0.059 |
| 90 mm | 41.8 | 90 | 154 | 0.06 | 282 | 116 | 27 | 0.108 |
| 100 mm | 58.7 | 100 | 165 | 0.06 | 311 | 128 | 33 | 0.154 |
| 110 mm | 75.5 | 110 | 180 | 0.08 | 342 | 140 | 43 | 0.238 |
| 120 mm | 99.5 | 120 | 197 | 0.08 | 371 | 152 | 56 | 0.371 |
| 130 mm | 129 | 130 | 214 | 0.08 | 400 | 165 | 71 | 0.559 |
| 140 mm | 163 | 140 | 231 | 0.08 | 435 | 177 | 91 | 0.826 |
| 150 mm | 203 | 150 | 247 | 0.08 | 461 | 189 | 110 | 1.143 |
| 160 mm | 248 | 160 | 264 | 0.08 | 489 | 201 | 133 | 1.584 |
| 170 mm | 298 | 170 | 280 | 0.085 | 515 | 213 | 157 | 2.108 |
| 180 mm | 354 | 180 | 296 | 0.09 | 541 | 225 | 184 | 2.763 |
| 190 mm | 415 | 190 | 314 | 0.095 | 570 | 238 | 220 | 3.698 |
| 200 mm | 485 | 200 | 330 | 0.10 | 596 | 250 | 253 | 4.712 |
| 220 mm | 645 | 220 | 363 | 0.11 | 649 | 274 | 334 | 7.513 |
| 240 mm | 838 | 240 | 394 | 0.12 | 703 | 298 | 423 | 11.259 |
| 260 mm | 1060 | 260 | 427 | 0.13 | 757 | 323 | 536 | 16.728 |
| 280 mm | 1330 | 280 | 460 | 0.14 | 811 | 348 | 666 | 24.143 |
| 300 mm | 1630 | 300 | 492 | 0.15 | 864 | 372 | 810 | 33.623 |
| 340 mm | 1980 | 320 | 525 | 0.16 | 916 | 396 | 978 | 46.227 |
| 340 mm | 2380 | 340 | 558 | 0.17 | 971 | 421 | 1172 | 62.548 |
| 360 mm | 2830 | 360 | 590 | 0.18 | 1022 | 445 | 1377 | 82.211 |
| 380 mm | 3320 | 380 | 625 | 0.19 | 1074 | 469 | 1630 | 109 |
| 400 mm | 3870 | 400 | 655 | 0.20 | 1126 | 493 | 1868 | 137 |
| 500 mm | 6362 | 500 | 778 | 0.25 | 1406 | 625 | 2953 | 316 |
| 600 mm | 11054 | 600 | 934 | 0.30 | 1679 | 750 | 5030 | 779 |
| 700 mm | 17580 | 700 | 1090 | 0.35 | 1938 | 870 | 7950 | 1675 |
| 800 mm | 26381 | 800 | 1245 | 0.40 | 2211 | 995 | 11727 | 3263 |

T: Torque m: Mass J: Mass moment of inertia DD1: Nominal assembly clearance shaft-bore

## HyCon S/SX for different bore diameters



## HyCon S/SX for brake disc application



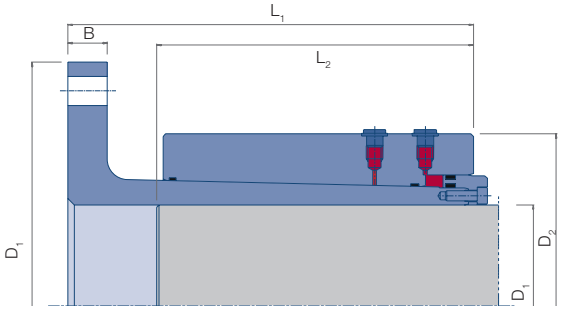
# HyCon F series

HyCon basic dimensions and specifications.

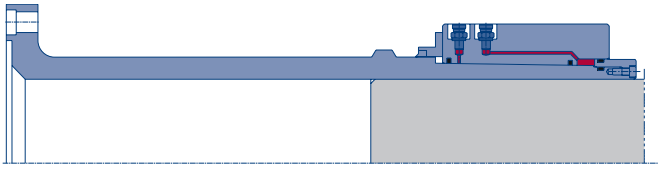
| Size HyCon F | T [kNm] | D1 [mm] | D2 [mm] | Df [mm] | B [mm] | DD1 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|---|---|
| 80 mm | 14.7 | 80 | 130 | 185 | 13 | 0.06 | 113 | 87 | 8 | 0.027 |
| 90 mm | 21.4 | 90 | 147 | 210 | 15 | 0.06 | 125 | 95 | 11 | 0.050 |
| 100 mm | 29.1 | 100 | 158 | 235 | 16 | 0.06 | 135 | 103 | 14 | 0.077 |
| 110 mm | 38.4 | 110 | 174 | 260 | 18 | 0.08 | 149 | 114 | 19 | 0.126 |
| 120 mm | 50.5 | 120 | 191 | 285 | 20 | 0.08 | 166 | 125 | 25 | 0.205 |
| 130 mm | 65.3 | 130 | 207 | 305 | 22 | 0.08 | 176 | 132 | 31 | 0.294 |
| 140 mm | 82.6 | 140 | 223 | 325 | 23 | 0.08 | 194 | 147 | 40 | 0.425 |
| 150 mm | 102 | 150 | 240 | 345 | 26 | 0.08 | 205 | 154 | 49 | 0.597 |
| 160 mm | 126 | 160 | 256 | 365 | 27 | 0.08 | 216 | 161 | 58 | 0.801 |
| 170 mm | 151 | 170 | 272 | 390 | 29 | 0.085 | 226 | 168 | 69 | 1.084 |
| 180 mm | 179 | 180 | 288 | 415 | 31 | 0.09 | 236 | 175 | 81 | 1.441 |
| 190 mm | 211 | 190 | 303 | 435 | 32 | 0.095 | 247 | 183 | 93 | 1.836 |
| 200 mm | 246 | 200 | 320 | 455 | 24 | 0.10 | 257 | 190 | 108 | 2.342 |
| 220 mm | 327 | 220 | 351 | 495 | 37 | 0.11 | 278 | 204 | 139 | 3.612 |
| 240 mm | 424 | 240 | 383 | 525 | 41 | 0.12 | 302 | 220 | 176 | 5.306 |
| 260 mm | 540 | 260 | 416 | 575 | 44 | 0.13 | 322 | 234 | 224 | 8.028 |
| 280 mm | 674 | 280 | 448 | 605 | 47 | 0.14 | 344 | 249 | 272 | 11.056 |
| 300 mm | 830 | 300 | 480 | 635 | 51 | 0.15 | 365 | 264 | 327 | 14.942 |
| 320 mm | 1000 | 320 | 511 | 695 | 54 | 0.16 | 385 | 277 | 398 | 21.247 |
| 340 mm | 1200 | 340 | 544 | 730 | 58 | 0.17 | 407 | 291 | 473 | 28.282 |
| 360 mm | 1430 | 360 | 576 | 760 | 61 | 0.18 | 427 | 305 | 550 | 36.259 |
| 380 mm | 1680 | 380 | 607 | 820 | 64 | 0.19 | 447 | 319 | 651 | 48.860 |
| 400 mm | 1960 | 400 | 639 | 855 | 68 | 0.20 | 469 | 332 | 751 | 61.957 |
| 500 mm | 3578 | 500 | 765 | 1115 | 69 | 0.25 | 558 | 445 | 1337 | 173 |
| 600 mm | 6182 | 600 | 915 | 1340 | 83 | 0.30 | 663 | 528 | 2261 | 422 |
| 700 mm | 9815 | 700 | 1067 | 1560 | 96 | 0.35 | 758 | 600 | 3531 | 898 |
| 800 mm | 14650 | 800 | 1219 | 1780 | 110 | 0.40 | 863 | 682 | 5224 | 1735 |

T: Torque m: Mass J: Mass moment of inertia DD1: Nominal assembly clearance shaft-bore

## HyCon F/FX standard




## HyCon F/FX long sleeve



# HyCon FX series

HyCon basic dimensions and specifications.

| Size HyCon F | T [kNm] | D1 [mm] | D2 [mm] | Df [mm] | B [mm] | DD1 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|---|---|
| 80 mm | 26.6 | 80 | 145 | 235 | 21 | 0.06 | 182 | 139 | 19 | 0.092 |
| 90 mm | 39.1 | 90 | 164 | 285 | 25 | 0.06 | 202 | 153 | 29 | 0.201 |
| 100 mm | 53 | 100 | 177 | 305 | 27 | 0.06 | 222 | 168 | 37 | 0.293 |
| 110 mm | 69.7 | 110 | 194 | 325 | 29 | 0.08 | 243 | 185 | 47 | 0.432 |
| 120 mm | 92.3 | 120 | 214 | 345 | 33 | 0.08 | 269 | 202 | 62 | 0.657 |
| 130 mm | 120 | 130 | 233 | 390 | 37 | 0.08 | 289 | 216 | 82 | 1.093 |
| 140 mm | 153 | 140 | 252 | 415 | 40 | 0.08 | 317 | 237 | 104 | 1.573 |
| 150 mm | 191 | 150 | 270 | 455 | 43 | 0.08 | 336 | 250 | 130 | 2.344 |
| 160 mm | 235 | 160 | 289 | 475 | 46 | 0.08 | 358 | 265 | 156 | 3.101 |
| 170 mm | 282 | 170 | 307 | 495 | 50 | 0.085 | 377 | 278 | 183 | 4.008 |
| 180 mm | 335 | 180 | 324 | 525 | 52 | 0.09 | 395 | 291 | 214 | 5.269 |
| 190 mm | 393 | 190 | '343 | 555 | 55 | 0.095 | 416 | 305 | 253 | 6.973 |
| 200 mm | 458 | 200 | 362 | 575 | 59 | 0.10 | 435 | 318 | 291 | 8.723 |
| 220 mm | 610 | 220 | 400 | 620 | 64 | 0.11 | 473 | 344 | 380 | 13.439 |
| 240 mm | 793 | 240 | 436 | 675 | 70 | 0.12 | 512 | 372 | 489 | 20.531 |
| 260 mm | 1000 | 260 | 470 | 730 | 76 | 0.13 | 549 | 398 | 610 | 30.024 |
| 280 mm | 1260 | 280 | 506 | 810 | 81 | 0.14 | 588 | 426 | 777 | 46.345 |
| 300 mm | 1540 | 300 | 542 | 840 | 87 | 0.15 | 626 | 452 | 924 | 60.444 |
| 320 mm | 1880 | 320 | 578 | 890 | 93 | 0.16 | 6'63 | 478 | 1108 | 81.825 |
| 340 mm | 2250 | 340 | 614 | 955 | 98 | 0.17 | 701 | 504 | 1333 | 112 |
| 360 mm | 2680 | 360 | 650 | 1000 | 104 | 0.18 | 738 | 530 | 1560 | 145 |
| 380 mm | 3150 | 380 | 685 | 1040 | 110 | 0.19 | 775 | 556 | 1799 | 183 |
| 400 mm | 3670 | 400 | 721 | 1115 | 116 | 0.20 | 812 | 581 | 2121 | 246 |
| 500 mm | 6662 | 500 | 850 | 1350 | 118 | 0.25 | 978 | 767 | 3502 | 578 |
| 600 mm | 11507 | 600 | 1020 | 1620 | 142 | 0.30 | 1168 | 914 | 5989 | 1428 |
| 700 mm | 18266 | 700 | 1190 | 1890 | 166 | 0.35 | 1348 | 1051 | 9452 | 3074 |
| 800 mm | 27276 | 800 | 1360 | 2160 | 189 | 0.40 | 1536 | 1198 | 13991 | 5950 |

T: Torque m: Mass J: Mass moment of inertia DD1: Nominal assembly clearance shaft-bore

# HyGrip connection coupling for rapid installation

The HyGrip connection coupling consists of a twin-walled pressure sleeve. It is pressurized with oil up to 1000 bar and sealed with a brass valve. This results in a completely backlash-free frictional connection. HyGrip connection couplings can be specifically designed to meet the exact requirements of the application. The torque transmission capacity and the axial forces are proportional to the oil pressure. The connection can be set and released very quickly if a suitable hydraulic pump is used. HyGrip couplings have limited radial force capacity.

### Customer benefits

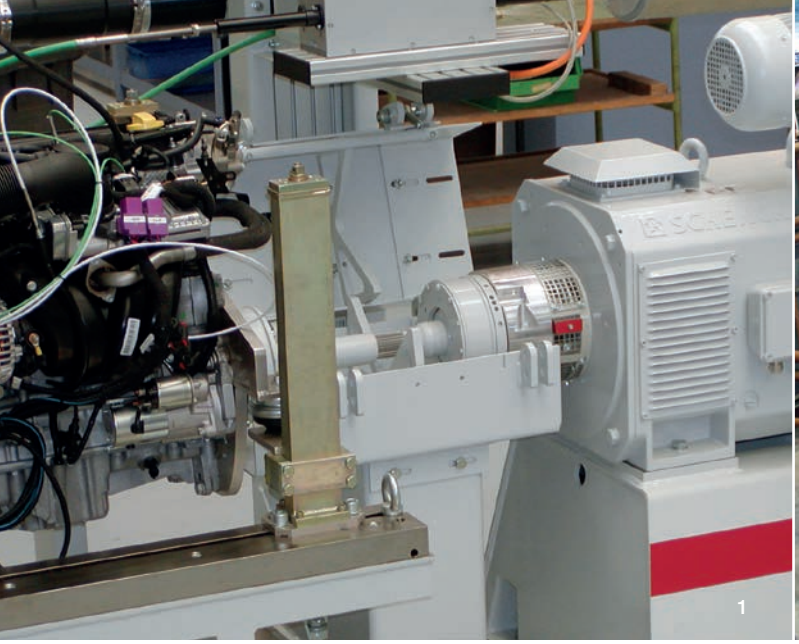
+ Improved control of processes
+ Increased service life of all driveline components
+ No notch effects as the keyways are eliminated
+ Rapid and accurate installation
+ Improved control of actual process
+ Able to withstand dirty and difficult environments
+ Extremely high torque capacity

### Design features

- Backlash-free connection
- Design optimized for simple assembly and disassembly
- Minimized radial and axial run out
- Robust design
- High friction coating (HFC) optional







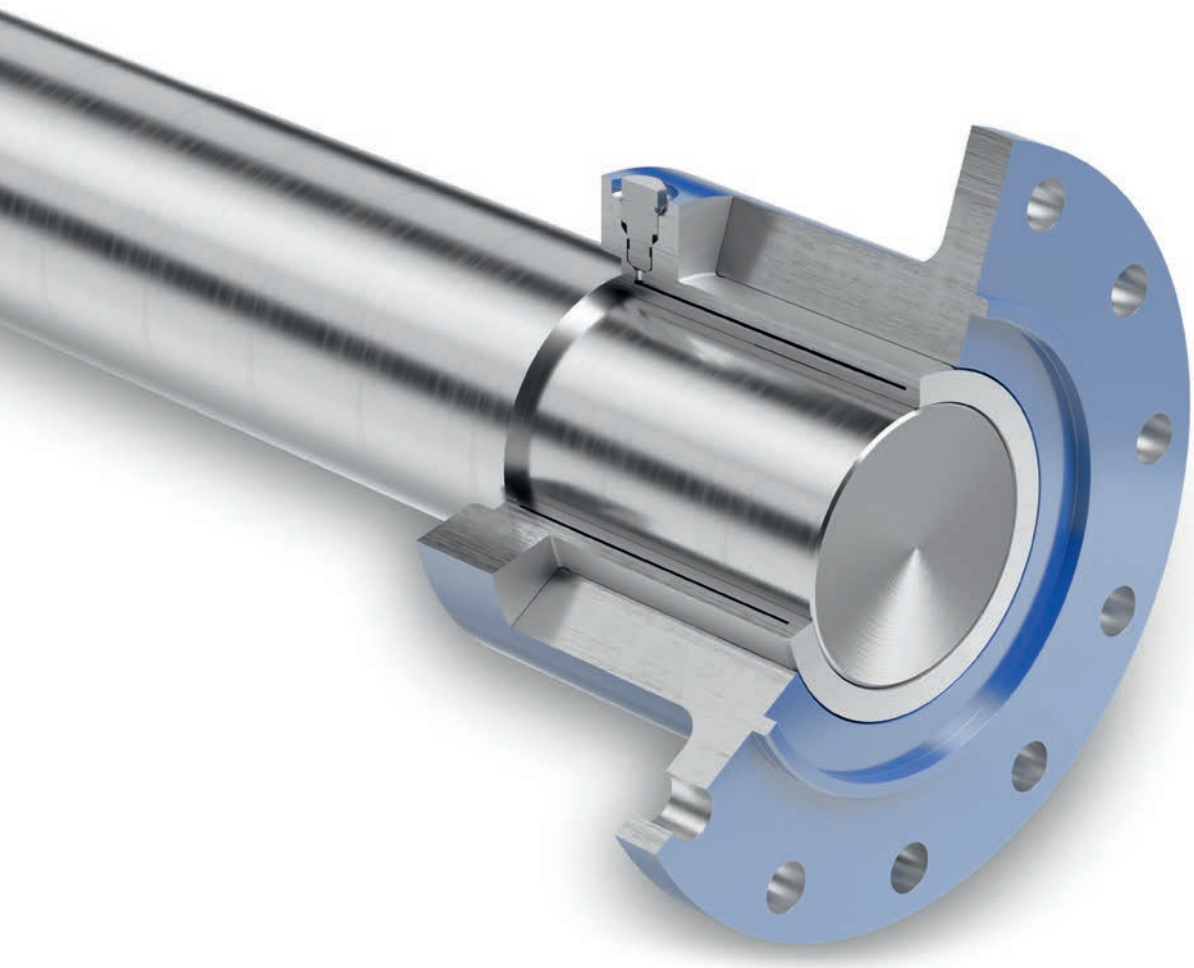


1 TestRig

2 SEC Compressor hall

### HyGrip connection couplings can be used for:

- Fixing of straightening rolls and cutting rolls where the radial forces are low
- Fixing of flexible drive shafts and couplings for easy assembly and disassembly
- Knife/blade holders for rotating slitters to cut sheet metal or paper



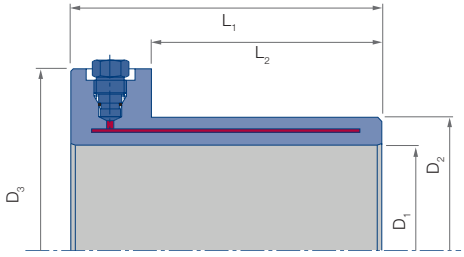
# HyGrip HG-B series

HyGrip basic dimensions and specifications.

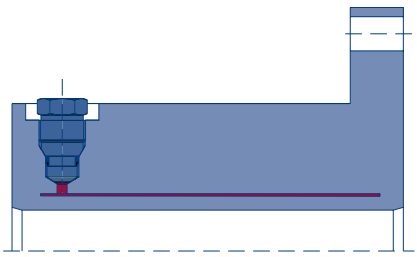
| Size HyGrip HG-B | T [kNm] | D1 [mm] | D2 [mm] | D3 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|
| 60 mm | 3,6 | 60 | 75 | 120 | 95 | 65 | 2,8 | 0.005 |
| 70 mm | 6 | 70 | 90 | 135 | 104 | 74 | 3,9 | 0.010 |
| 80 mm | 7,8 | 80 | 100 | 144 | 120 | 90 | 4,7 | 0.013 |
| 90 mm | 10 | 90 | 110 | 155 | 132 | 102 | 5,5 | 0.018 |
| 100 mm | 15 | 100 | 125 | 170 | 146 | 108 | 8,2 | 0.034 |
| 110 mm | 20 | 110 | 140 | 188 | 144 | 109 | 10 | 0.050 |
| 120 mm | 25 | 120 | 150 | 196 | 171 | 133 | 12 ,2 | 0.068 |
| 130 mm | 33 | 130 | 160 | 205 | 182 | 144 | 13 ,6 | 0.084 |
| 140 mm | 40 | 140 | 170 | 215 | 190 | 152 | 15 | 0.104 |
| 150 mm | 46 | 150 | 180 | 225 | 200 | 162 | 16,5 | 0.128 |
| 160 mm | 71 | 160 | 200 | 233 | 225 | 180 | 24 | 0.211 |
| 170 mm | 78 | 170 | 210 | 243 | 221 | 176 | 24,9 | 0.243 |
| 180 mm | 85 | 180 | 225 | 261 | 221 | 176 | 29,7 | 0.330 |
| 190 mm | 120 | 190 | 240 | 273 | 270 | 222 | 40 | 0.491 |
| 200 mm | 130 | 200 | 250 | 283 | 270 | 222 | 42 | 0.56 |
| 220 mm | 160 | 220 | 270 | 301 | 270 | 222 | 45 | 0.71 |
| 240 mm | 201 | 240 | 296 | 363 | 260 | 205 | 56 | 1.12 |
| 260 mm | 256 | 260 | 326 | 386 | 284 | 247 | 77 | 1.77 |
| 280 mm | 336 | 280 | 351 | 409 | 320 | 280 | 99 | 2.62 |
| 300 mm | 410 | 300 | 380 | 434 | 342 | 302 | 126 | 3.87 |
| 320 mm | 530 | 320 | 408 | 459 | 392 | 346 | 167 | 5.80 |
| 340 mm | 651 | 340 | 438 | 484 | 428 | 379 | 214 | 8.40 |
| 360 mm | 789 | 360 | 465 | 508 | 464 | 412 | 260 | 11.5 |
| 380 mm | 931 | 380 | 494 | 533 | 495 | 440 | 317 | 15.6 |
| 400 mm | 1085 | 400 | 520 | 557 | 523 | 465 | 369 | 20.1 |
| 450 mm | 1544 | 450 | 585 | 615 | 590 | 526 | 521 | 35.8 |
| 500 mm | 2116 | 500 | 648 | 673 | 655 | 586 | 698 | 58.8 |

T: Torque m: Mass J: Mass moment of inertia Recommended hub diameter D2 x 1.4 (material with yield point minimum 400 N/mm²)

## HyGrip HG-B standard




## HyGrip HG-N with integrated flange



# HyLoc connection coupling for extreme radial forces

The HyLoc connection coupling consists of a hollow sleeve, where the internal chamber is a conical ring piston that is moved hydraulically. The ensuring radial expansion produces a backlash-free connection between a shaft and a hub. The pressure required for assembly is normally 1000 bar. A maximum of 1200 bar is usually required for disassembly. After assembly, the oil is drained so that there is no residual oil pressure in the coupling during operation. The same applies for disassembly. The ring piston is provided with specially arranged lubrication grooves, hence a lubricating film is created when the ring piston moves between the working surfaces.

### Customer benefits

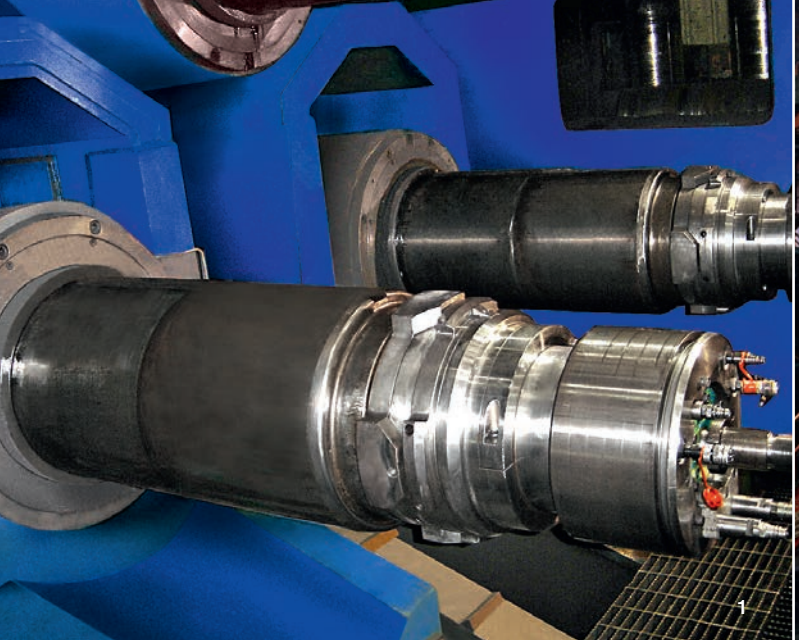
+ Improved control of processes
+ Increased service life of all driveline components
+ No notch effects as the keyways are eliminated
+ Rapid and accurate installation
+ Improved control of actual process
+ Ideally suited for roll connections
+ Able to withstand dirty and difficult environments
+ Extremely high torque capacity
+ High radial force capacity

### Design features

- Backlash-free connection
- Design optimized for simple assembly and disassembly
- Minimized radial and axial run out
- Design optimized for withstanding high radial forces
- Robust design
- High friction coating (HFC) optional









1 HyLoc in leveling machine

2 HyLoc in roll connection

### HyLoc connection couplings can be used for:

- Fixing of straightening and cutting rolls in the steel industry
- Fixing of different hubs and runners as flywheels, turbines, coils, plates, etc.
- Knife/blade holders for rotating slitters to cut sheet metal or paper



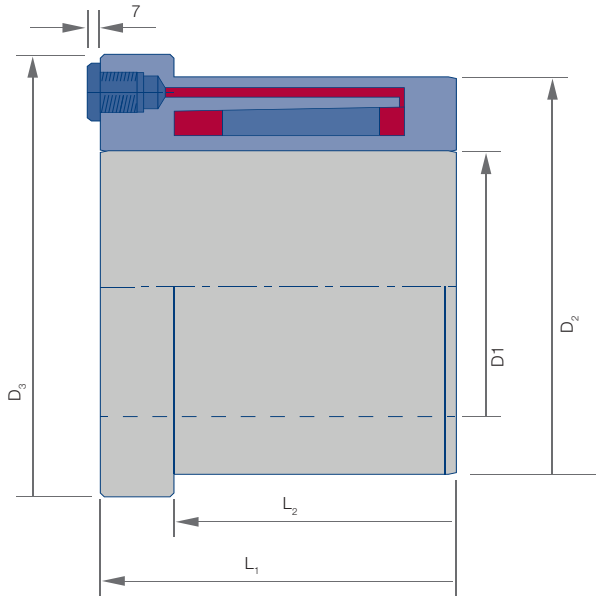
# HyLoc HC-B series

Hyloc basic dimensions and specifications.

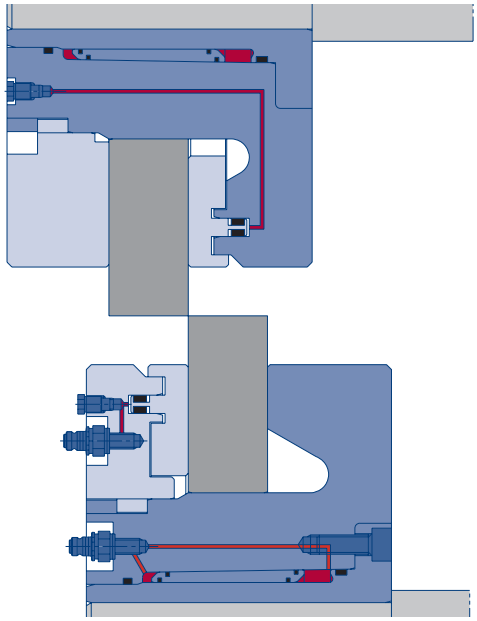
| Size Hyloc standard | T [kNm] | D1 [mm] | D2 [mm] | D3 [mm] | L1 [mm] | L2 [mm] | m [kg] | J [kgm²] |
|---|---|---|---|---|---|---|---|---|
| 150 mm | 89 | 150 | 204 | 220 | 220 | 195 | 26 | 0,22 |
| 160 mm | 108 | 160 | 217 | 234 | 235 | 210 | 32 | 0,3 |
| 170 mm | 129 | 170 | 223 | 245 | 252 | 227 | 35 | 0,34 |
| 180 mm | 150 | 180 | 236 | 256 | 267 | 242 | 40 | 0,44 |
| 190 mm | 176 | 190 | 256 | 267 | 283 | 258 | 52 | 0,67 |
| 200 mm | 202 | 200 | 268 | 278 | 298 | 273 | 59 | 0,84 |
| 220 mm | 269 | 220 | 291 | 299 | 326 | 301 | 74 | 1,23 |
| 240 mm | 349 | 240 | 317 | 327 | 354 | 329 | 94 | 1,88 |
| 260 mm | 444 | 260 | 341 | 351 | 397 | 372 | 120 | 2,76 |
| 280 mm | 555 | 280 | 360 | 370 | 446 | 421 | 141 | 3,69 |
| 300 mm | 683 | 300 | 384 | 394 | 474 | 449 | 168 | 5,02 |
| 320 mm | 829 | 320 | 408 | 418 | 502 | 477 | 199 | 6,7 |
| 340 mm | 994 | 340 | 432 | 442 | 534 | 509 | 234 | 8,87 |
| 360 mm | 1180 | 360 | 457 | 467 | 561 | 536 | 274 | 11,7 |
| 380 mm | 1388 | 380 | 482 | 492 | 588 | 563 | 319 | 15,1 |
| 400 mm | 1619 | 400 | 507 | 517 | 616 | 591 | 369 | 19,3 |
| 450 mm | 2305 | 450 | 570 | 580 | 685 | 660 | 517 | 34,1 |
| 500 mm | 3162 | 500 | 633 | 643 | 752 | 727 | 698 | 56,9 |

T: Torque m: Mass J: Mass moment of inertia Recommended hub diameter D2 x 1.4 (material with yield point minimum 400 N/mm²)

## HyLoc HC-B

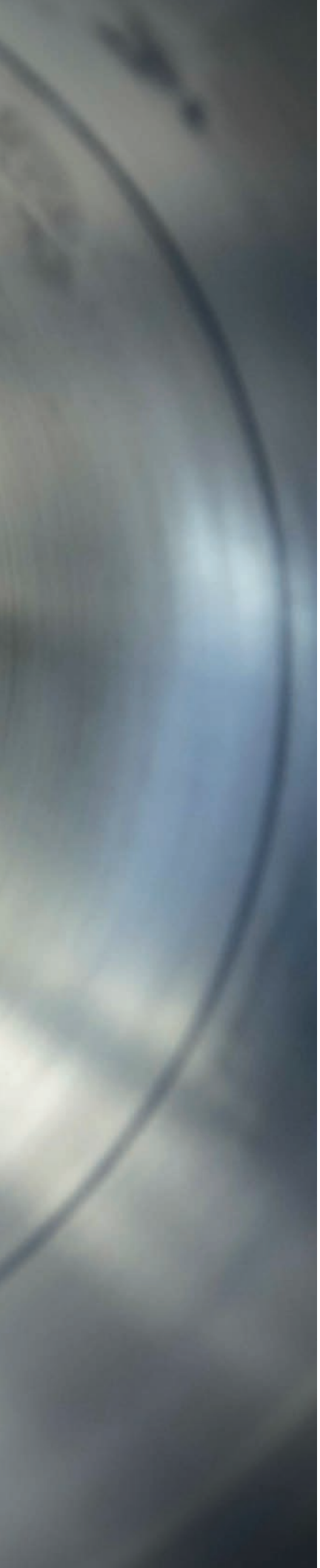



## HyLoc HC-B disc knife holder





# Our Service – Part of Your Business.



# Service and maintenance

**The quality of our products is exceptionally high and the life span is long. Nevertheless, all mechanical drive components need correct service and maintenance to ensure reliable performance.**
**Our service – part of your business**

The most important task is to help our customers prevent unplanned stoppages and production downtime. By providing correct installation, training of your maintenance personnel and frequent service, we make sure your equipment meets its full design potential.

Voith service personnel are present during installation, initial startup and final commissioning. We instruct your personnel on how to operate the couplings and optimize their settings.

Whenever our customers need support, we provide it instantly. Voith service personnel use the latest technology and all their knowledge and experience to provide the service needed. Scheduled servicing and repairs of couplings are carried out in order to reduce life cycle costs and to guarantee continuous operating performance. Furthermore, we propose possible improvements and upgrades.

Voith has regional service centers worldwide, offering different types of service solutions tailored to your specific needs.

VT1578, en, 2023-02, BDI. Dimensions and illustrations without obligation. Subject to modifications.

Voith Group
St. Poeltener Str. 43
89522 Heidenheim, Germany

Contact:
Phone +46 650 540150
sales.safeset@voith.com
service.safeset@voith.com
www.voith.com/safeset