

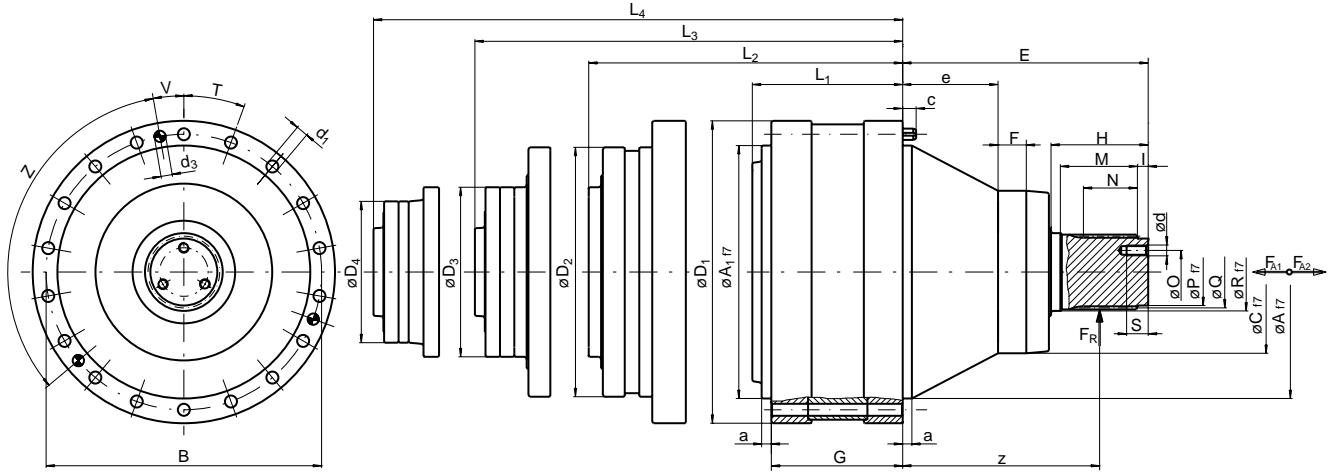
Industrial Planetary Reducers

SHANNON SANDERS
PRODUCT MANAGER
SSANDERS@SIPCO-MLS.COM
281-480-8711 EXT. 190

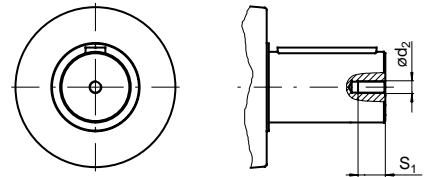
SIPCO
12610 GALVESTON ROAD
WEBSTER, TX 77598

PAUL CIOLLI
INSIDE SALES
PCIOLLI@SIPCO-MLS.COM
281-480-8711 EXT 240

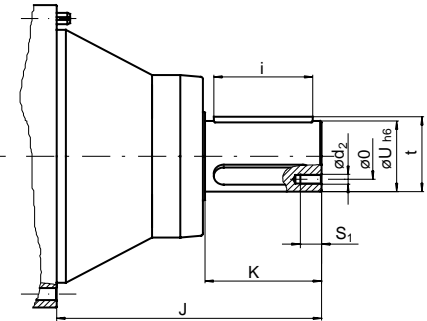
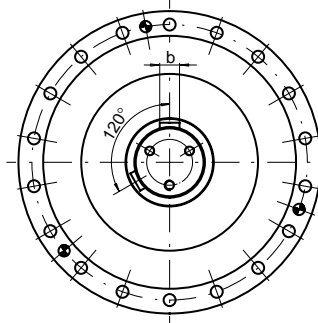
In Line Gearboxes



Only RES 1800/2000
(normal version)



The dimensions L₁...L₄ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔL. For dimensions of the standard input see pages 26...27.

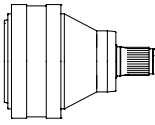


mounting spigots must be used.

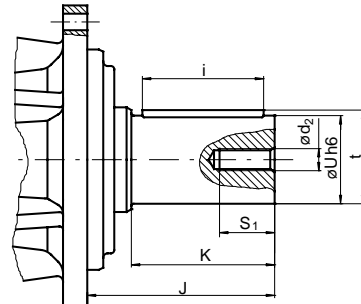
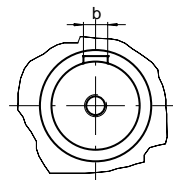
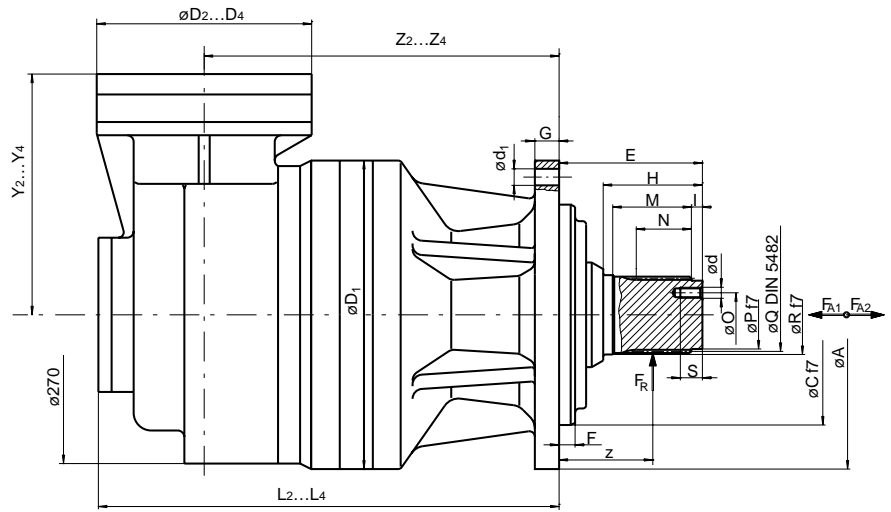
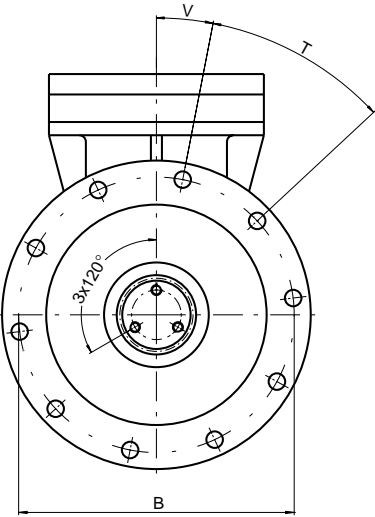
| RES | A | A ₁ | B | C | D ₁ | D ₂ | D ₃ | D ₄ | E | F | G | H | I | J | K | L ₁ | L ₂ | L ₃ | L ₄ | M | N | O |
|-------|-----|----------------|-----|-----|----------------|----------------|----------------|----------------|-----|------|-----|-----|----|-----|-----|----------------|----------------|----------------|----------------|-----|-----|-----|
| 1800 | 278 | - | 314 | 225 | 353 | 240 | 200 | 200 | 231 | 25 | 138 | 90 | 10 | 311 | 170 | - | 229 | 283.5 | 333.5 | 70 | 50 | 45 |
| 1800R | 290 | - | 314 | 250 | 353 | 240 | 200 | 200 | 343 | 71.5 | 117 | 110 | 12 | 398 | 165 | - | 208 | 262.5 | 312.5 | 86 | 66 | 65 |
| 2000 | 278 | - | 314 | 225 | 353 | 280 | 240 | 200 | 231 | 25 | 139 | 90 | 10 | 311 | 170 | 161 | 269 | 322 | 364.5 | 70 | 50 | 45 |
| 2000R | 290 | - | 314 | 250 | 353 | 280 | 240 | 200 | 343 | 71.5 | 118 | 110 | 12 | 398 | 165 | 140 | 248 | 301 | 343.5 | 86 | 66 | 65 |
| 3000 | 358 | 358 | 390 | 230 | 428 | 280 | 240 | 200 | 320 | 40 | 140 | 110 | 12 | 375 | 165 | 195 | 279.5 | 332.5 | 375 | 86 | 66 | 65 |
| 4000 | 358 | 358 | 390 | 230 | 428 | 353 | 240 | 200 | 340 | 40 | 184 | 130 | 10 | 375 | 165 | 199.5 | 285.5 | 353.5 | 408 | 105 | 88 | 70 |
| 6000 | 385 | 385 | 415 | 260 | 445 | 353 | 280 | 240 | 357 | 40 | 175 | 130 | 10 | 392 | 165 | 210 | 326 | 434 | 487 | 105 | 88 | 70 |
| 8000 | 460 | 460 | 503 | 300 | 542 | 428 | 353 | 240 | 429 | 30 | 199 | 150 | 12 | 479 | 200 | 246 | 395.5 | 481.5 | 549.5 | 123 | 107 | 70 |
| 10000 | 460 | 460 | 503 | 300 | 542 | 428 | 353 | 240 | 449 | 30 | 219 | 170 | 12 | 479 | 200 | 266 | 415.5 | 501.5 | 569.5 | 138 | 120 | 90 |
| 15000 | 560 | 560 | 635 | - | 695 | 445 | 353 | 280 | 352 | - | 200 | 200 | 20 | 412 | 260 | 308 | 472 | 588 | 696 | 150 | 130 | 140 |

| RES | P | Q | R | S | S ₁ | T | U | V | Z | a | b | c | d | d ₁ | d ₂ | d ₃ | e | i | t | z | F _R [kN] | F _{A1} [kN] | F _{A2} [kN] |
|-------|------|--------------------|-------|----|----------------|--------|-----|-------|--------|----|----|----|---------------|----------------|----------------|----------------|-----|-----|-----|-----|---------------------|----------------------|----------------------|
| 1800 | 70 | 80x74 DIN 5482 | 85 | 25 | 50 | 12x30° | 90 | 15° | 3x120° | 8 | 25 | 15 | M12 3x120° | 16.5 | M20 | 12 | 73 | 150 | 95 | 186 | 187 | 150 | 150 |
| 1800R | 85h6 | 100x94 DIN 5482 | 105g6 | 30 | 30 | 12x30° | 100 | 15° | 3x120° | 15 | 28 | 15 | M14 3x120° | 16.5 | M14 3x120° | 12 | 144 | 140 | 106 | 288 | 300 | 210 | 210 |
| 2000 | 70 | 80x74 DIN 5482 | 85 | 25 | 50 | 12x30° | 90 | 15° | 3x120° | 8 | 25 | 15 | M12 3x120° | 16.5 | M20 | 12 | 73 | 150 | 95 | 186 | 187 | 150 | 150 |
| 2000R | 85h6 | 100x94 DIN 5482 | 105g6 | 30 | 30 | 12x30° | 100 | 15° | 3x120° | 15 | 28 | 15 | M14 3x120° | 16.5 | M14 3x120° | 12 | 144 | 140 | 106 | 288 | 300 | 210 | 210 |
| 3000 | 85 | 100x94 DIN 5482 | 105 | 30 | 30 | 18x20° | 100 | 10° | 3x120° | 13 | 28 | 19 | M14 3x120° | 17 | M14 3x120° | 16 | 135 | 140 | 106 | 265 | 300 | 210 | 210 |
| 4000 | 100 | W120x3 DIN 5480 | 122 | 35 | 35 | 18x20° | 120 | 10° | 3x120° | 13 | 32 | 19 | M16 3x120° | 17 | M16 3x120° | 16 | 135 | 140 | 127 | 275 | 300 | 210 | 210 |
| 6000 | 100 | W120x3 DIN 5480 | 122 | 35 | 35 | 18x20° | 120 | 10° | 3x120° | 13 | 32 | 20 | M16 3x120° | 17 | M16 3x120° | 16 | 152 | 140 | 127 | 292 | 270 | 220 | 220 |
| 8000 | 125 | W150x5 DIN 5480 | 151 | 30 | 30 | 20x15° | 150 | 0° | 4x90° | 13 | 36 | 25 | M16 3x120° | 21 | M16 3x120° | 20 | 224 | 180 | 158 | 354 | 350 | 250 | 250 |
| 10000 | 145 | W170x5 DIN 5480 | 171 | 30 | 30 | 20x15° | 170 | 0° | 4x90° | 13 | 40 | 25 | M16 3x120° | 21 | M16 3x120° | 20 | 224 | 180 | 179 | 364 | 400 | 250 | 250 |
| 15000 | 170 | W200x5 DIN 5480 | 200 | 35 | 35 | 24x15° | 200 | 22.5° | 4x90° | 20 | 45 | 35 | M16 6x60° | 32 | M16 6x60° | 25 | - | 250 | 210 | 252 | 770 | 300 | 300 |

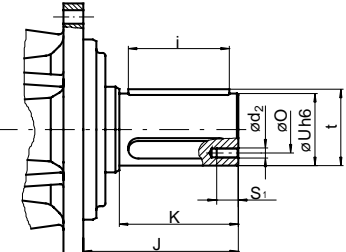
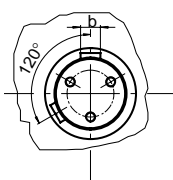
Male Output

|  | | 1800 | | 2000 | | 3000 | | 4000 | | 6000 | | 8000 | | 10000 | | 15000 | |
|--|--|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|-------|--------------|-------|--------------|-------|
| M_{in} | | 1800 [daBn] | | 2000 [daBn] | | 3000 [daBn] | | 4000 [daBn] | | 6000 [daBn] | | 8000 [daBn] | | 10000 [daBn] | | 15000 [daBn] | |
| M1/M1R | | | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stage 1 | | | | 3.429 | 2100 | 3.429 | 3100 | 3.429 | 4300 | 3.281 | 5400 | 3.429 | 9700 | 4.091 | 15600 | 4.091 | 21500 |
| n_1 [1/min] | | | | 4.091 2900 | | 4.091 3900 | | 4.091 5400 | | 4.174 7000 | | 4.091 13000 | | 5.250 11600 | | 5.250 17000 | |
| $n_{1,max}$ [1/min] | | | | 5.250 2100 | | 5.250 3100 | | 5.250 4300 | | 5.294 5400 | | 5.250 9700 | | 6.231 7800 | | 6.231 14000 | |
| n_1 [1/min] | | 1800 | | 1800 | | 1500 | | 1000 | | 750 | | 750 | | 500 | | | |
| $n_{1,max}$ [1/min] | | 2500 | | 2500 | | 2000 | | 1500 | | 1000 | | 1000 | | 800 | | | |
| M2/M2R | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 2 | | 12.00 | 1500 | 13.22 | 2100 | 13.22 | 3100 | 11.76 | 4300 | 11.25 | 5400 | 11.76 | 9700 | 14.03 | 15600 | 13.42 | 21500 |
| n_1 [1/min] | | 2800 | | 2000 | | 2000 | | 2000 | | 1800 | | 1500 | | 1500 | | 1000 | |
| $n_{1,max}$ [1/min] | | 3800 | | 3000 | | 3000 | | 3000 | | 2500 | | 2000 | | 2000 | | 1500 | |
| M3/M3R | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 3 | | 50.1 | 1500 | 46.3 | 2100 | 46.3 | 3100 | 41.1 | 4300 | 43.4 | 5400 | 40.3 | 9700 | 48.1 | 15600 | 46.0 | 21500 |
| n_1 [1/min] | | 3000 | | 2800 | | 2800 | | 2800 | | 2000 | | 2000 | | 2000 | | 1800 | |
| $n_{1,max}$ [1/min] | | 4000 | | 3800 | | 3800 | | 3800 | | 3000 | | 3000 | | 3000 | | 2500 | |
| M4/M4R | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 4 | | 265 | 2100 | 193 | 2900 | 193 | 3900 | 205 | 5400 | 193 | 7000 | 201 | 13000 | 201 | 15600 | 178 | 21500 |
| n_1 [1/min] | | 3000 | | 3000 | | 3000 | | 3000 | | 2800 | | 2800 | | 2800 | | 2000 | |
| $n_{1,max}$ [1/min] | | 4000 | | 4000 | | 4000 | | 4000 | | 3800 | | 3800 | | 3800 | | 3000 | |

Right Angle Gears



Only RES 1300R

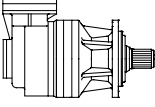


The dimensions $Y_2 \dots Y_4$ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔY . For dimensions of the standard input see pages 26...27.

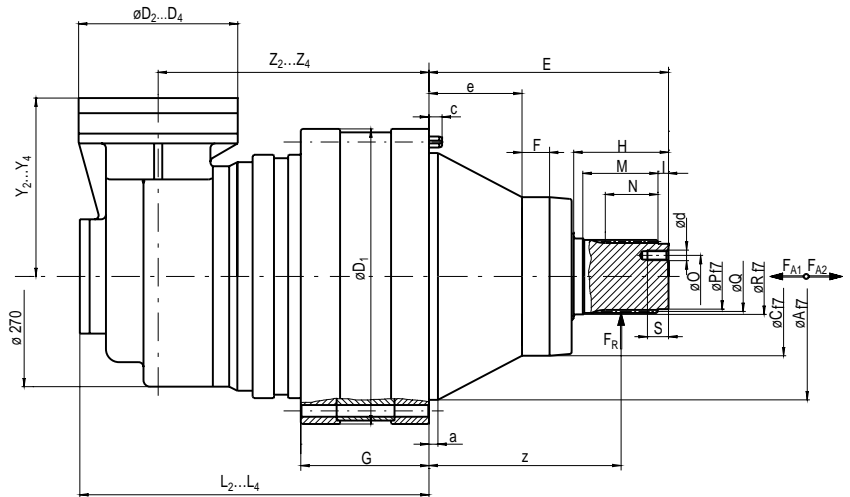
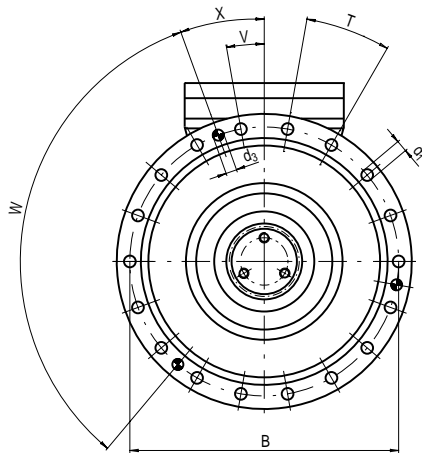
| RES | A | B | C | D_1 | D_2 | D_3 | D_4 | E | F | G | H | I | J | K | L_2 | L_3 | L_4 | M | N | O | P | Q |
|-------|-----|-----|-----|-------|-------|-------|-------|-----|----|----|-----|----|-----|-----|-------|-------|-------|----|----|----|------|--------|
| 300 | 220 | 195 | 150 | 240 | 195 | 200 | 200 | 83 | 14 | 18 | 68 | 8 | 120 | 105 | 333.5 | 333.5 | 333.5 | 50 | 38 | 32 | 50 | 58x53 |
| 300R | 272 | 245 | 175 | 240 | 195 | 200 | 200 | 119 | 10 | 20 | 80 | 8 | 144 | 105 | 347 | 347 | 347 | 65 | 50 | 32 | 50 | 58x53 |
| 500 | 220 | 195 | 150 | 240 | 195 | 200 | 200 | 83 | 14 | 18 | 68 | 8 | 120 | 105 | 348.5 | 348.5 | 348.5 | 50 | 38 | 32 | 50 | 58x53 |
| 500R | 272 | 245 | 175 | 240 | 195 | 200 | 200 | 119 | 10 | 20 | 80 | 8 | 144 | 105 | 362 | 362 | 362 | 65 | 50 | 32 | 50 | 58x53 |
| 800R | 280 | 250 | 200 | 280 | 195 | 200 | 200 | 130 | 15 | 22 | 90 | 10 | 170 | 130 | 411 | 411 | 411 | 70 | 50 | 40 | 62 | 70x64 |
| 1300 | 325 | 295 | 230 | 353 | 195 | 195 | 200 | 126 | 10 | 25 | 90 | 10 | 206 | 170 | 393.5 | 465 | 465 | 70 | 50 | 45 | 70 | 80x74 |
| 1300R | 325 | 295 | 250 | 353 | 195 | 195 | 200 | 167 | 21 | 30 | 110 | 12 | 222 | 165 | 443.5 | 515 | 515 | 86 | 66 | 65 | 85h6 | 100x94 |

| RES | R | S | S_1 | T | U | V | Y_2 | Y_3 | Y_4 | Z_2 | Z_3 | Z_4 | b | d | d_1 | d_2 | i | t | z | F_R [kN] | F_{A1} [kN] | F_{A2} [kN] |
|-------|-------|----|-------|--------|-----|-----|-------|-------|-------|-------|-------|-------|----|-----|-------|---------------|-----|-----|-----|------------|---------------|---------------|
| 300 | 60 | 20 | 50 | 10x36° | 60 | 0° | 238 | 289.5 | 339.5 | 236.5 | 236.5 | 236.5 | 18 | M10 | 12.5 | M20 | 90 | 64 | 49 | 76 | 55 | 55 |
| 300R | 60 | 20 | 50 | 10x36° | 65 | 0° | 238 | 289.5 | 339.5 | 250 | 250 | 250 | 18 | M10 | 12.5 | M20 | 90 | 69 | 79 | 115 | 82 | 82 |
| 500 | 60 | 20 | 50 | 10x36° | 60 | 0° | 238 | 289.5 | 339.5 | 251.5 | 251.5 | 251.5 | 18 | M10 | 12.5 | M20 | 90 | 64 | 49 | 76 | 55 | 55 |
| 500R | 60 | 20 | 50 | 10x36° | 65 | 0° | 238 | 289.5 | 339.5 | 265 | 265 | 265 | 18 | M10 | 12.5 | M20 | 90 | 69 | 79 | 115 | 82 | 82 |
| 800R | 72 | 20 | 50 | 12x30° | 80 | 15° | 238 | 289.5 | 339.5 | 314 | 314 | 314 | 22 | M10 | 15 | M20 | 110 | 85 | 85 | 128 | 96 | 96 |
| 1300 | 85 | 25 | 50 | 10x36° | 90 | 0° | 238 | 238 | 289.5 | 296.5 | 368 | 368 | 25 | M12 | 16.5 | M20 | 150 | 95 | 81 | 187 | 150 | 150 |
| 1300R | 105g6 | 30 | 30 | 20x18° | 100 | 0° | 238 | 238 | 289.5 | 346.5 | 418 | 418 | 28 | M14 | 16.5 | M14 3x120° | 140 | 106 | 112 | 300 | 210 | 210 |

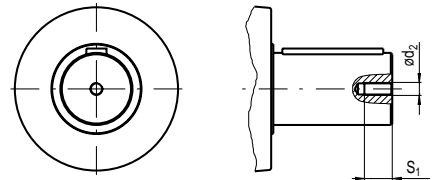
Male Output

|  | | 300 | | 500 | | 800 | | 1300 | |
|--|---------|--------|-----|--------|-----|--------|------|--------|------|
| | | [daNm] | | [daNm] | | [daNm] | | [daNm] | |
| M_n | | 300 | | 500 | | 800 | | 1300 | |
| M2A/M2RA | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 2 | | 17.00 | 290 | 17.00 | 490 | 18.73 | 980 | 19.87 | 1100 |
| | | 20.04 | 390 | 20.04 | 660 | 21.05 | 1100 | 25.50 | 1300 |
| | | 25.10 | 320 | 25.10 | 570 | 24.29 | 980 | 30.26 | 1100 |
| | | 29.14 | 290 | 29.14 | 490 | 29.14 | 750 | | |
| | | 35.21 | 220 | 35.21 | 360 | | | | |
| | | | | | | | | | |
| n_1 | [1/min] | 3000 | | 3000 | | 3000 | | 3000 | |
| n_{1max} | [1/min] | 3500 | | 3500 | | 3500 | | 3500 | |
| M3A/M3RA | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 3 | | 59.5 | 290 | 59.5 | 490 | 65.6 | 980 | 58.3 | 1300 |
| | | 70.1 | 390 | 70.1 | 660 | 73.7 | 1100 | 69.5 | 1800 |
| | | 82.6 | 390 | 82.6 | 660 | 77.3 | 980 | 82.0 | 1800 |
| | | 87.8 | 320 | 87.8 | 570 | 86.8 | 1100 | 89.3 | 1300 |
| | | 102.0 | 290 | 102.0 | 490 | 96.8 | 980 | 102.7 | 1800 |
| | | 103.5 | 390 | 103.5 | 660 | 108.7 | 1100 | 105.2 | 1300 |
| | | 120.2 | 390 | 120.2 | 660 | 126.3 | 1100 | 119.2 | 1800 |
| | | 129.7 | 320 | 129.7 | 570 | 135.8 | 980 | 131.7 | 1300 |
| | | 145.3 | 390 | 145.3 | 660 | 145.7 | 980 | 144.1 | 1800 |
| | | 150.6 | 320 | 150.6 | 570 | 152.6 | 1100 | 153.0 | 1300 |
| | | 171.1 | 390 | 171.1 | 660 | 160.0 | 980 | 184.9 | 1300 |
| | | 174.9 | 290 | 174.9 | 490 | 179.7 | 1100 | 219.4 | 1100 |
| | | 181.9 | 320 | 181.9 | 570 | 207.4 | 980 | | |
| | | 214.3 | 320 | 214.3 | 570 | 248.8 | 750 | | |
| | | 248.8 | 290 | 248.8 | 490 | | | | |
| | | 300.7 | 220 | 300.7 | 360 | | | | |
| n_1 | [1/min] | 3000 | | 3000 | | 3000 | | 3000 | |
| n_{1max} | [1/min] | 4000 | | 4000 | | 4000 | | 3500 | |
| M4A/M4RA | | i Mc | | i Mc | | i Mc | | i Mc | |
| Stages 4 | | 245 | 390 | 245 | 660 | 230 | 980 | 204 | 1300 |
| | | 289 | 390 | 289 | 660 | 258 | 1100 | 243 | 1800 |
| | | 341 | 390 | 341 | 660 | 304 | 1100 | 287 | 1800 |
| | | 362 | 390 | 362 | 660 | 358 | 1100 | 338 | 1800 |
| | | 427 | 390 | 427 | 660 | 381 | 1100 | 359 | 1800 |
| | | 496 | 390 | 496 | 660 | 442 | 1100 | 417 | 1800 |
| | | 535 | 390 | 535 | 660 | 521 | 1100 | 492 | 1800 |
| | | 599 | 390 | 599 | 660 | 562 | 1100 | 530 | 1800 |
| | | 621 | 390 | 621 | 660 | 629 | 1100 | 594 | 1800 |
| | | 706 | 390 | 706 | 660 | 758 | 1100 | 715 | 1800 |
| | | 721 | 390 | 721 | 660 | 916 | 1100 | 744 | 1800 |
| | | 751 | 390 | 751 | 660 | 1106 | 1100 | 864 | 1800 |
| | | 872 | 390 | 872 | 660 | 1303 | 1100 | 1044 | 1800 |
| | | 884 | 390 | 884 | 660 | 1503 | 980 | 1230 | 1800 |
| | | 1026 | 390 | 1026 | 660 | 1804 | 750 | 1340 | 1300 |
| | | 1053 | 390 | 1053 | 660 | | | 1578 | 1300 |
| | | 1240 | 390 | 1240 | 660 | | | 1873 | 1100 |
| | | 1553 | 320 | 1553 | 570 | | | | |
| | | 1804 | 290 | 1804 | 490 | | | | |
| 2180 | 220 | 2180 | 360 | | | | | | |
| n_1 | [1/min] | 3000 | | 3000 | | 3000 | | 3000 | |
| n_{1max} | [1/min] | 4000 | | 4000 | | 4000 | | 4000 | |

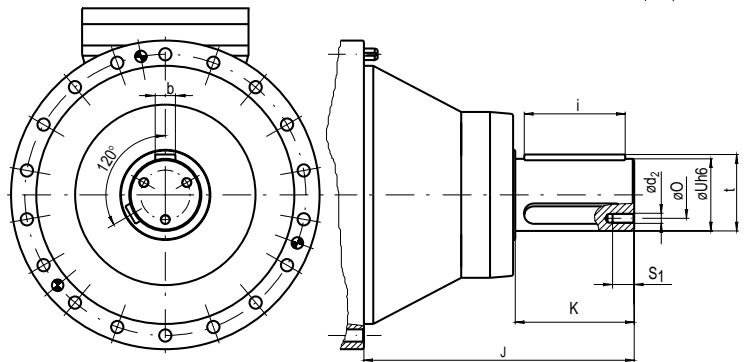
Right Angle Gears



Only RES 1800/2000
(normal version)



The dimensions $Y_2...Y_4$ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔY . For dimensions of the standard input see pages 26...27.

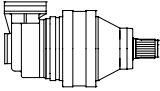


If shaft radial load exceeds 50% of the admissible load both mounting spigots must be used.

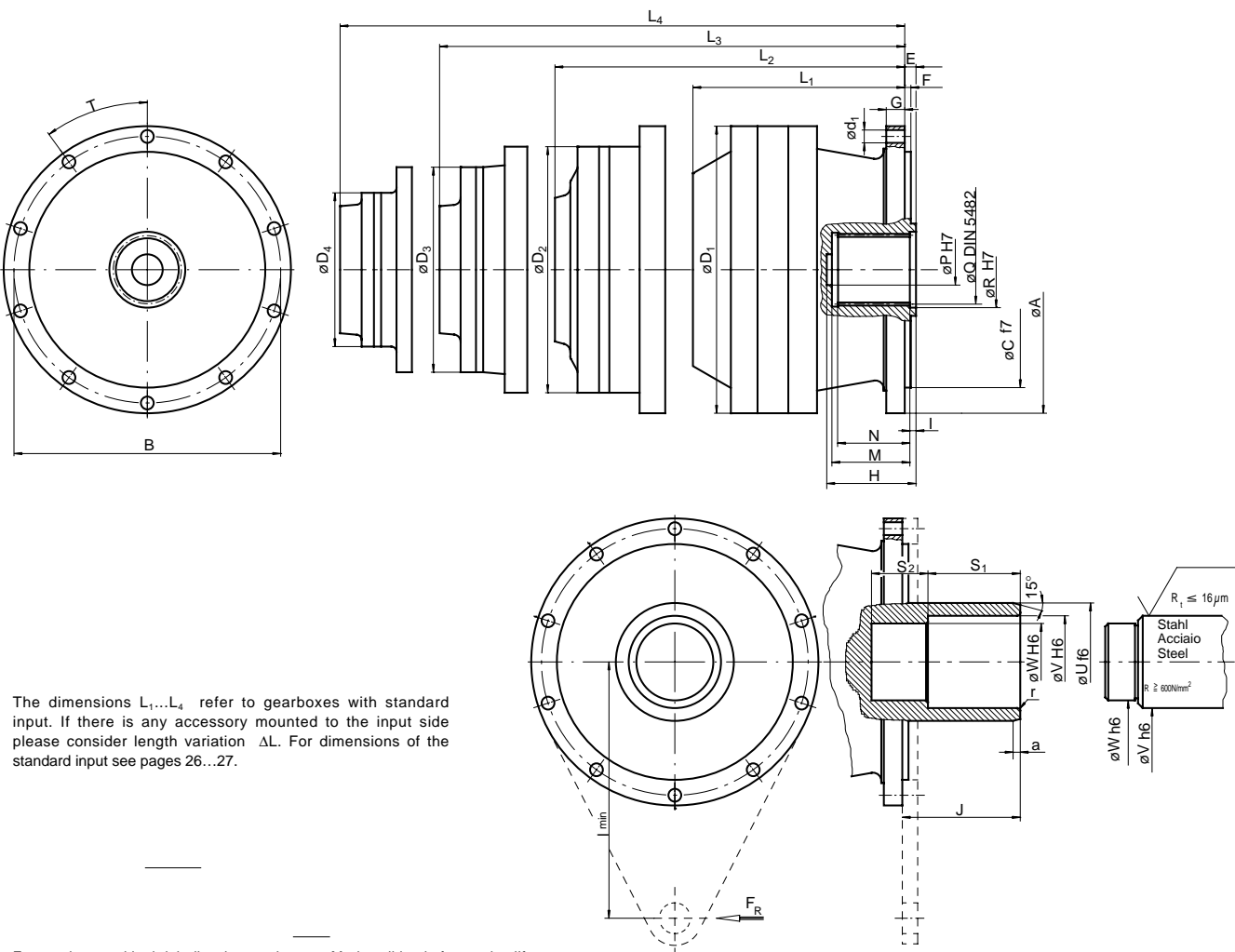
| RES | A | B | C | D ₁ | D ₂ | D ₃ | D ₄ | E | F | G | H | I | J | K | L ₂ | L ₃ | L ₄ | M | N | O | P | Q | R | S | S ₁ |
|-------|-----|-----|-----|----------------|----------------|----------------|----------------|-----|------|-----|-----|----|-----|-----|----------------|----------------|----------------|-----|-----|----|------|--------------------|-------|----|----------------|
| 1800 | 278 | 314 | 225 | 353 | - | 195 | 200 | 231 | 25 | 138 | 90 | 10 | 311 | 170 | - | 390 | 390 | 70 | 50 | 45 | 70 | 80x74 DIN 5482 | 85 | 25 | 50 |
| 1800R | 290 | 314 | 250 | 353 | - | 195 | 200 | 343 | 71.5 | 117 | 110 | 12 | 398 | 165 | - | 369 | 369 | 86 | 66 | 65 | 85h6 | 100x94 DIN 5482 | 105g6 | 30 | 30 |
| 2000 | 278 | 314 | 225 | 353 | - | 195 | 200 | 231 | 25 | 139 | 90 | 10 | 311 | 170 | - | 426.5 | 426.5 | 70 | 50 | 45 | 70 | 80x74 DIN 5482 | 85 | 25 | 50 |
| 2000R | 290 | 314 | 250 | 353 | - | 195 | 200 | 343 | 71.5 | 118 | 110 | 12 | 398 | 165 | - | 405.5 | 405.5 | 86 | 66 | 65 | 85h6 | 100x94 DIN 5482 | 105g6 | 30 | 30 |
| 3000 | 358 | 390 | 230 | 428 | - | 195 | 200 | 320 | 40 | 140 | 110 | 12 | 375 | 165 | - | 437 | 437 | 86 | 66 | 65 | 85 | 100x94 DIN 5482 | 105 | 30 | 30 |
| 4000 | 358 | 390 | 230 | 428 | - | 195 | 195 | 340 | 40 | 184 | 130 | 10 | 375 | 165 | - | 443 | 514.5 | 105 | 88 | 70 | 100 | W120x3 DIN 5480 | 122 | 35 | 35 |
| 6000 | 385 | 415 | 260 | 445 | - | - | 195 | 357 | 40 | 175 | 130 | 10 | 392 | 165 | - | - | 591.5 | 105 | 88 | 70 | 100 | W120x3 DIN 5480 | 122 | 35 | 35 |
| 8000 | 460 | 503 | 300 | 542 | - | - | 195 | 429 | 30 | 199 | 150 | 12 | 479 | 200 | - | - | 639 | 123 | 107 | 70 | 125 | W150x5 DIN 5480 | 151 | 30 | 30 |
| 10000 | 460 | 503 | 300 | 542 | - | - | 195 | 463 | 30 | 219 | 184 | 12 | 479 | 200 | - | - | 659 | 138 | 120 | 90 | 145 | W170x5 DIN 5480 | 171 | 30 | 30 |

| RES | T | U | V | W | X | Y ₂ | Y ₃ | Y ₄ | Z ₂ | Z ₃ | Z ₄ | a | b | c | d | d ₁ | d ₂ | d ₃ | e | i | t | z | F _R [kN] | F _{A1} [kN] | F _{A2} [kN] |
|-------|--------|-----|-----|--------|------|----------------|----------------|----------------|----------------|----------------|----------------|----|----|----|---------------|----------------|----------------|----------------|-----|-----|-----|-----|---------------------|----------------------|----------------------|
| 1800 | 12x30° | 90 | 0° | 3x120° | 15° | - | 238 | 289.5 | - | 293 | 293 | 8 | 25 | 15 | M12 3x120° | 16.5 | M20 | 12 | 73 | 150 | 95 | 186 | 187 | 150 | 150 |
| 1800R | 12x30° | 100 | 0° | 3x120° | 15° | - | 238 | 289.5 | - | 272 | 272 | 15 | 28 | 15 | M14 3x120° | 16.5 | M14 3x120° | 12 | 144 | 140 | 106 | 288 | 300 | 210 | 210 |
| 2000 | 12x30° | 90 | 15° | 3x120° | 0° | - | 238 | 289.5 | - | 329.5 | 329.5 | 8 | 25 | 15 | M12 3x120° | 16.5 | M20 | 12 | 73 | 150 | 95 | 186 | 187 | 150 | 150 |
| 2000R | 12x30° | 100 | 15° | 3x120° | 0° | - | 238 | 289.5 | - | 308.5 | 308.5 | 15 | 28 | 15 | M14 3x120° | 16.5 | M14 3x120° | 12 | 144 | 140 | 106 | 288 | 300 | 210 | 210 |
| 3000 | 18x20° | 100 | 5° | 3x120° | 115° | - | 238 | 289.5 | - | 340 | 340 | 13 | 28 | 19 | M14 3x120° | 17 | M14 3x120° | 16 | 135 | 140 | 106 | 265 | 300 | 210 | 210 |
| 4000 | 18x20° | 120 | 0° | 3x120° | 10° | - | 238 | 238 | - | 346 | 417.5 | 13 | 32 | 19 | M16 3x120° | 17 | M16 3x120° | 16 | 135 | 140 | 127 | 275 | 300 | 210 | 210 |
| 6000 | 18x20° | 120 | 5° | 3x120° | 115° | - | - | 238 | - | - | 494.5 | 13 | 32 | 20 | M16 3x120° | 17 | M16 3x120° | 16 | 152 | 140 | 127 | 292 | 270 | 220 | 220 |
| 8000 | 20x15° | 150 | 15° | 4x90° | 0° | - | - | 238 | - | - | 542 | 13 | 36 | 25 | M16 3x120° | 21 | M16 3x120° | 20 | 224 | 180 | 158 | 354 | 350 | 250 | 250 |
| 10000 | 20x15° | 170 | 15° | 4x90° | 0° | - | - | 238 | - | - | 542 | 13 | 40 | 25 | M16 3x120° | 21 | M16 3x120° | 20 | 224 | 180 | 179 | 364 | 400 | 250 | 250 |

Male Output

|  | | 1800 | 2000 | 3000 | 4000 | 6000 | 8000 | 10000 | | | | | | | | | | |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|------|------|------|------|-------|-----|-------|-----|-------|--|
| M_n | | 1800 [daNm] | 2000 [daNm] | 3000 [daNm] | 4000 [daNm] | 6000 [daNm] | 8000 [daNm] | 10000 [daNm] | | | | | | | | | | |
| M2A/M2RA | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | | | | | |
| | Stages | 2 | | | | | | | | | | | | | | | | |
| | n_1 | [1/min] | | | | | | | | | | | | | | | | |
| | n_{1max} | [1/min] | | | | | | | | | | | | | | | | |
| M3A/M3RA | | i Mc | | i Mc | | i Mc | | i Mc | | | | | | | | | | |
| | Stages | 3 | | 58.3 | 1500 | 64.2 | 2100 | 64.2 | 3100 | 81.3 | 4300 | | | | | | | |
| | | 69.5 | 1950 | 72.2 | 2100 | 72.2 | 3100 | 87.4 | 4300 | | | | | | | | | |
| | | 82.0 | 1950 | 76.6 | 2900 | 76.6 | 3900 | 104.3 | 5400 | | | | | | | | | |
| | | 86.0 | 2100 | 83.3 | 2100 | 83.3 | 3100 | 123.8 | 5400 | | | | | | | | | |
| | | 89.2 | 2100 | 86.1 | 2900 | 86.1 | 3900 | 133.9 | 4300 | | | | | | | | | |
| | | 102.7 | 2100 | 99.4 | 2900 | 99.4 | 3900 | 158.9 | 4300 | | | | | | | | | |
| | | 119.2 | 2100 | 110.5 | 2100 | 110.5 | 3100 | 188.6 | 3400 | | | | | | | | | |
| | | 131.8 | 1950 | 119.2 | 2900 | 119.2 | 3900 | | | | | | | | | | | |
| | | 144.1 | 2100 | 127.5 | 2100 | 127.5 | 3100 | | | | | | | | | | | |
| 153.0 | | 1950 | 153.0 | 2100 | 153.0 | 3100 | | | | | | | | | | | | |
| 184.9 | 1700 | 181.6 | 1800 | 181.6 | 2500 | | | | | | | | | | | | | |
| 219.4 | 1500 | | | | | | | | | | | | | | | | | |
| n_1 | [1/min] | | 3000 | | 3000 | | 3000 | | | | | | | | | | | |
| n_{1max} | [1/min] | | 3500 | | 3500 | | 3500 | | | | | | | | | | | |
| M4A/M4RA | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | | | | | |
| | Stages | 4 | | 204 | 1950 | 225 | 2100 | 225 | 3100 | 200 | 4300 | 211 | 5400 | 196 | 9700 | 234 | 12100 | |
| | | 243 | 1950 | 253 | 2100 | 253 | 3100 | 238 | 5400 | 237 | 5400 | 234 | 9700 | 279 | 13000 | 279 | 14400 | |
| | | 287 | 2100 | 268 | 2900 | 268 | 3900 | 281 | 5400 | 268 | 7000 | 279 | 13000 | 300 | 11600 | 300 | 11600 | |
| | | 312 | 2100 | 301 | 2900 | 301 | 3900 | 335 | 5400 | 301 | 7000 | 300 | 9700 | 333 | 15600 | 333 | 15600 | |
| | | 368 | 2100 | 355 | 2900 | 355 | 3900 | 365 | 5400 | 359 | 7000 | 333 | 13000 | 358 | 15600 | 358 | 15600 | |
| | | 434 | 2100 | 410 | 2900 | 410 | 3900 | 420 | 5400 | 415 | 7000 | 358 | 13000 | 427 | 15600 | 427 | 15600 | |
| | | 498 | 2100 | 460 | 2900 | 460 | 3900 | 488 | 5400 | 461 | 7000 | 424 | 13000 | 459 | 11600 | 459 | 11600 | |
| | | 543 | 2100 | 556 | 2900 | 556 | 3900 | 539 | 5400 | 532 | 7000 | 459 | 9700 | 506 | 15600 | 506 | 15600 | |
| | | 631 | 2100 | 624 | 2900 | 624 | 3900 | 626 | 5400 | 632 | 7000 | 459 | 13000 | 548 | 15600 | 548 | 15600 | |
| | | 763 | 2100 | 715 | 2900 | 715 | 3900 | 756 | 5400 | 694 | 5400 | 548 | 13000 | 650 | 15600 | 650 | 15600 | |
| | | 853 | 2100 | 848 | 2900 | 848 | 3900 | 897 | 5400 | 758 | 7000 | 650 | 13000 | 703 | 11600 | 703 | 11600 | |
| | | 955 | 1950 | 924 | 2100 | 924 | 3100 | 961 | 4300 | 810 | 5400 | 703 | 9700 | 771 | 15600 | 771 | 15600 | |
| | | 1109 | 2100 | 1018 | 2900 | 1018 | 3900 | 1152 | 4300 | 961 | 5400 | 771 | 13000 | 990 | 11600 | 990 | 11600 | |
| | | 1306 | 1950 | 1109 | 2100 | 1109 | 3100 | 1367 | 3400 | 1128 | 4500 | 990 | 9700 | | | | | |
| | | 1578 | 1950 | 1306 | 2100 | 1306 | 3100 | | | | | 1175 | 7800 | | | | | |
| | | 1873 | 1500 | 1550 | 1800 | 1550 | 2500 | | | | | | | | | | | |
| | | n_1 | [1/min] | | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | |
| | | n_{1max} | [1/min] | | 4000 | | 4000 | | 4000 | | 3500 | | 3500 | | 3500 | | 3500 | |

In Line Gearboxes



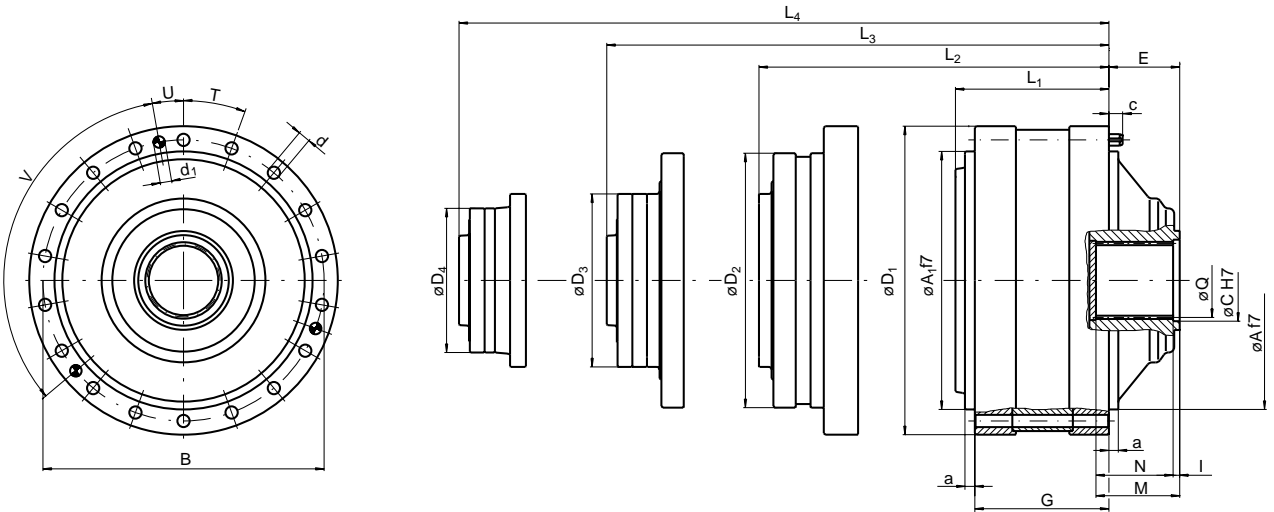
The dimensions L₁...L₄ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔL. For dimensions of the standard input see pages 26...27.

For gearboxes with shrink disc the rated torque MC is valid only for service life determination. The real transmissible torque could be limited by the shrink disc. For the transmissible torque with our shrink discs, see page 48.

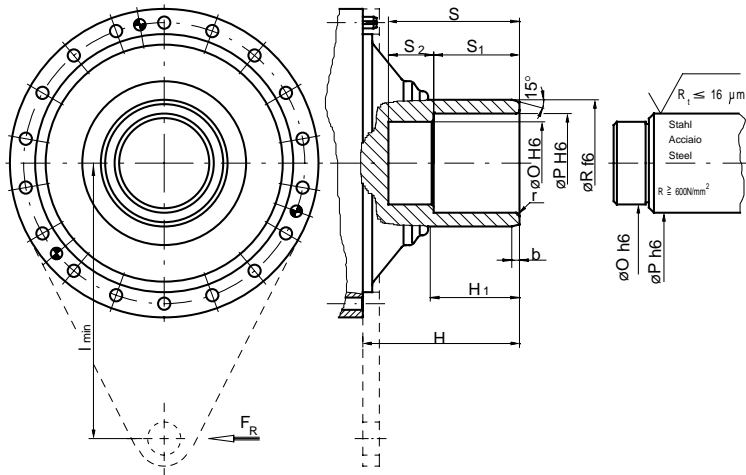
| RES | A | B | C | D ₁ | D ₂ | D ₃ | D ₄ | E | F | G | H | I | J | L ₁ | L ₂ | L ₃ | L ₄ |
|-------|-----|-----|-----|----------------|----------------|----------------|----------------|----|----|----|------|----|-----|----------------|----------------|----------------|----------------|
| 100 | 185 | 165 | 110 | 200 | 200 | 200 | 200 | 6 | 5 | 12 | 42.5 | 12 | 50 | 123 | 173 | 223 | 273 |
| 200 | 185 | 165 | 110 | 200 | 200 | 200 | 200 | 6 | 5 | 12 | 42.5 | 12 | 50 | 135 | 185 | 235 | 285 |
| 300 | 220 | 195 | 150 | 240 | 200 | 200 | 200 | 15 | 14 | 18 | 54 | 15 | 85 | 172.5 | 215 | 265 | 315 |
| 400 | 220 | 195 | 150 | 240 | 200 | 200 | 200 | 15 | 14 | 18 | 54 | 15 | 85 | - | 230 | 280 | 330 |
| 500 | 220 | 195 | 150 | 240 | 200 | 200 | 200 | 15 | 14 | 18 | 54 | 15 | 85 | 187.5 | 242 | 292 | 342 |
| 800 | 280 | 260 | 230 | 280 | 240 | 200 | 200 | 11 | 6 | 18 | 87 | 6 | - | 198 | 251 | 293.5 | 343.5 |
| 800FP | 280 | 250 | 200 | 280 | 240 | 200 | 200 | - | 15 | 22 | - | - | 115 | 253.5 | 306.5 | 349 | 399 |
| 1000 | 325 | 295 | 230 | 353 | 240 | 200 | 200 | 36 | 10 | 25 | 87 | 20 | 120 | - | 289 | 331.5 | 381.5 |
| 1300 | 325 | 295 | 230 | 353 | 240 | 200 | 200 | 36 | 10 | 25 | 87 | 20 | 120 | 236 | 304 | 358.5 | 408.5 |

| RES | M | N | P | Q | R | S ₁ | S ₂ | T | U | V | W | F _{Rmax} ^[30] | a | d ₁ | I _{min} | r |
|-------|----|----|----|---------|----|----------------|----------------|--------|-----|----|----|-----------------------------------|---|----------------|------------------|---|
| 100 | 22 | 18 | 35 | 40 x 36 | 42 | 42 | 18 | 8x45° | 50 | 42 | 35 | 8 | 4 | 10.5 | 200 | 1 |
| 200 | 22 | 18 | 35 | 40 x 36 | 42 | 42 | 18 | 8x45° | 50 | 42 | 35 | 15 | 4 | 10.5 | 200 | 1 |
| 300 | 29 | 25 | 50 | 58 x 53 | 60 | 70 | 30 | 10x36° | 100 | 75 | 65 | 27 | 6 | 12.5 | 250 | 2 |
| 400 | 29 | 25 | 50 | 58 x 53 | 60 | 70 | 30 | 10x36° | 100 | 75 | 65 | 27 | 6 | 12.5 | 250 | 2 |
| 500 | 29 | 25 | 50 | 58 x 53 | 60 | 70 | 30 | 10x36° | 100 | 75 | 65 | 27 | 6 | 12.5 | 250 | 2 |
| 800 | 76 | 70 | 30 | 70 x 64 | 74 | - | - | 10x36° | - | - | - | - | - | 12.5 | - | - |
| 800FP | - | - | - | - | - | 90 | 55 | 12x30° | 110 | 85 | 70 | 32 | 7 | 15 | 350 | 3 |
| 1000 | 55 | 50 | 70 | 80 x 74 | 85 | 100 | 40 | 10x36° | 125 | 95 | 80 | 45 | 7 | 16.5 | 400 | 3 |
| 1300 | 55 | 50 | 70 | 80 x 74 | 85 | 100 | 40 | 10x36° | 125 | 95 | 80 | 45 | 7 | 16.5 | 400 | 3 |

In Line Gearboxes



The dimensions $L_1...L_4$ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔL . For dimensions of the standard input see pages 26...27.

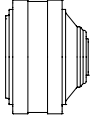


For gearboxes with shrink disc the rated torque M_c is valid only for service life determination. The real transmissible torque could be limited by the shrink disc. For the transmissible torque with our shrink discs, see page 48.

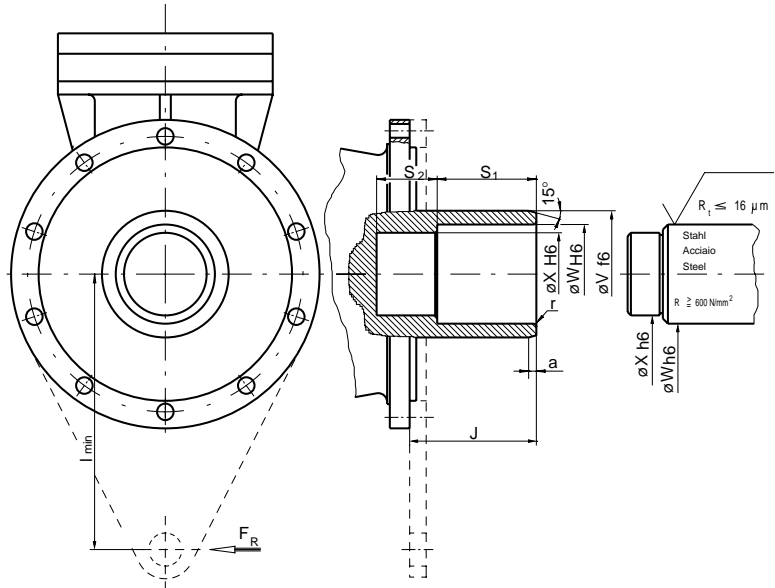
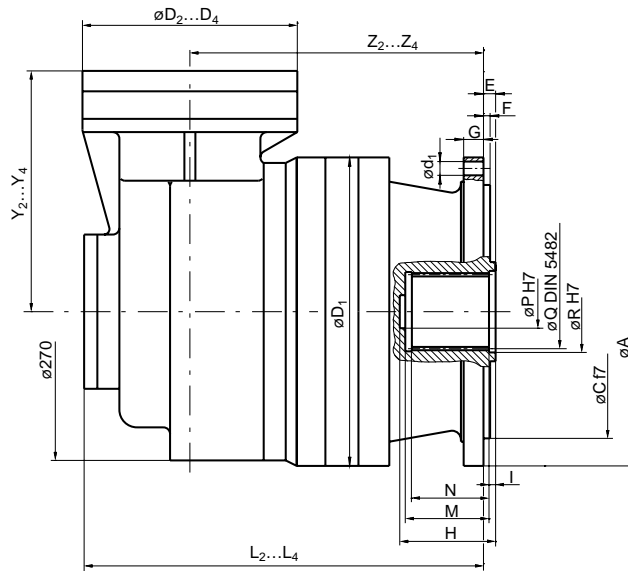
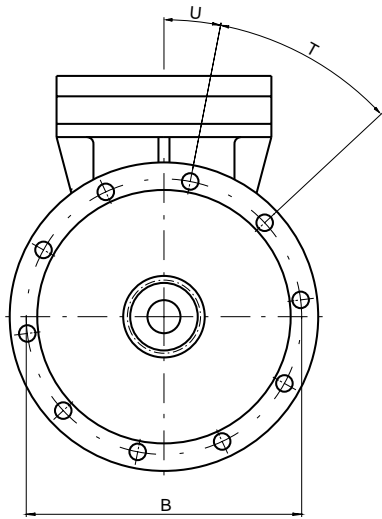
| RES | A | A ₁ | B | C | D ₁ | D ₂ | D ₃ | D ₄ | E | G | H | H ₁ | I | L ₁ | L ₂ | L ₃ | L ₄ | M | N |
|-------|-----|----------------|-----|-----|----------------|----------------|----------------|----------------|-----|-----|-----|----------------|----|----------------|----------------|----------------|----------------|-----|-----|
| 1800 | 278 | - | 314 | 85 | 353 | 240 | 200 | 200 | 141 | 138 | 225 | 85 | 20 | - | 229 | 283.5 | 333.5 | 70 | 50 |
| 2000 | 278 | - | 314 | 85 | 353 | 280 | 240 | 200 | 141 | 139 | 225 | 85 | 20 | 161 | 269 | 322 | 364.5 | 70 | 50 |
| 3000 | 358 | 358 | 390 | 102 | 428 | 280 | 240 | 200 | 88 | 140 | 190 | 100 | 15 | 195 | 279.5 | 332.5 | 375 | 92 | 77 |
| 4000 | 358 | 358 | 390 | 102 | 428 | 353 | 240 | 200 | 88 | 184 | 190 | 100 | 15 | 199 | 285.5 | 353.5 | 408 | 92 | 77 |
| 6000 | 385 | 385 | 415 | 122 | 445 | 353 | 280 | 240 | 81 | 175 | 450 | 140 | 15 | 210 | 326 | 442 | 487 | 100 | 85 |
| 8000 | 460 | 460 | 503 | 152 | 542 | 428 | 353 | 240 | 98 | 199 | 427 | 147 | 20 | 246 | 395.5 | 481.5 | 549.5 | 120 | 100 |
| 10000 | 460 | 460 | 503 | 162 | 542 | 428 | 353 | 240 | 98 | 219 | 437 | 147 | 20 | 266 | 415.5 | 501.5 | 569.5 | 120 | 100 |
| 15000 | 560 | 560 | 635 | 210 | 695 | 445 | 353 | 280 | 152 | 200 | 318 | 170 | 17 | 308 | 472 | 588 | 696 | 140 | 123 |

| RES | O | P | Q | R | S | S ₁ | S ₂ | T | U | V | a | b | c | d | d ₁ | I _{min} | r | F _{R max} [kN] |
|-------|-----|-----|--------------------|-----|-----|----------------|----------------|--------|-------|--------|----|---|----|------|----------------|------------------|-------|-------------------------|
| 1800 | 80 | 95 | 80x74 DIN 5482 | 125 | 140 | 100 | 40 | 12x30° | 15° | 3x120° | 8 | 4 | 15 | 16.5 | 12 | 560 | 3 | 52 |
| 2000 | 80 | 95 | 80x74 DIN 5482 | 125 | 140 | 100 | 40 | 12x30° | 15° | 3x120° | 8 | 4 | 15 | 16.5 | 12 | 560 | 3 | 52 |
| 3000 | - | 135 | 100x94 DIN 5482 | 175 | 153 | 150 | - | 18x20° | 10° | 3x120° | 13 | 4 | 19 | 17 | 16 | 800 | 3 | 65 |
| 4000 | - | 135 | 100x94 DIN 5482 | 175 | 153 | 150 | - | 18x20° | 10° | 3x120° | 13 | 4 | 19 | 17 | 16 | 800 | 3 | 65 |
| 6000 | 130 | 140 | N120x3 DIN 5480 | 185 | 225 | 150 | 60 | 18x20° | 10° | 3x120° | 13 | 5 | 20 | 17 | 16 | 900 | 5x30° | 77 |
| 8000 | - | 160 | N150x5 DIN 5480 | 200 | 164 | 149 | - | 20x15° | 0 | 4x90° | 13 | 5 | 25 | 21 | 20 | 1100 | 5x15° | 118 |
| 10000 | - | 170 | N160x5 DIN 5480 | 220 | 164 | 149 | - | 20x15° | 0 | 4x90° | 13 | 5 | 25 | 21 | 20 | 1100 | 5x15° | 142 |
| 15000 | - | 200 | N200x5 DIN 5480 | 260 | 307 | 290 | - | 24x15° | 22.5° | 4x90° | 20 | 5 | 35 | 32 | 25 | 1500 | 5x15° | 144 |

Female Output

| | 1800 | 2000 | 3000 | 4000 | 6000 | 8000 | 10000 | 15000 | | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | | | | | | | | | | | | | | | | |
| M_n | 1800 [daNm] | 2000 [daNm] | 3000 [daNm] | 4000 [daNm] | 6000 [daNm] | 8000 [daNm] | 10000 [daNm] | 15000 [daNm] | | | | | | | | |
| F1/F1P | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | | |
| | | | 3.429 | 2100 | 3.429 | 3100 | 3.429 | 4300 | 3.281 | 5400 | 3.429 | 9700 | 4.091 | 15600 | 4.091 | 21500 |
| | | | 4.091 | 2900 | 4.091 | 3900 | 4.091 | 5400 | 4.174 | 7000 | 4.091 | 13000 | 5.250 | 11600 | 5.250 | 17000 |
| | | | 5.250 | 2100 | 5.250 | 3100 | 5.250 | 4300 | 5.294 | 5400 | 5.250 | 9700 | | | 6.231 | 14000 |
| | | | 6.231 | 1800 | 6.231 | 2500 | 6.231 | 3400 | 6.214 | 4500 | 6.231 | 7800 | | | | |
| Stages | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | | |
| n_1 | [1/min] | | 1800 | | 1800 | | 1500 | | 1000 | | 750 | | 750 | | 500 | |
| n_{1max} | [1/min] | | 2500 | | 2500 | | 2000 | | 1500 | | 1000 | | 1000 | | 800 | |
| F2/F2P | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| | 12.00 | 1500 | 13.22 | 2100 | 13.22 | 3100 | 11.76 | 4300 | 11.25 | 5400 | 11.76 | 9700 | 14.03 | 15600 | 13.42 | 21500 |
| | 14.14 | 1950 | 15.78 | 2900 | 15.78 | 3900 | 14.03 | 5400 | 14.31 | 7000 | 14.03 | 13000 | 16.74 | 15600 | 17.08 | 21500 |
| | 16.88 | 2100 | 17.73 | 2900 | 17.73 | 3900 | 16.74 | 5400 | 17.08 | 7000 | 16.74 | 13000 | 18.00 | 11600 | 21.66 | 21500 |
| | 18.38 | 1950 | 20.45 | 2900 | 20.45 | 3900 | 18.00 | 4300 | 18.15 | 5400 | 18.00 | 9700 | 21.48 | 15600 | 25.42 | 21500 |
| 21.66 | 2100 | 22.75 | 2100 | 22.75 | 3100 | 21.48 | 5400 | 21.91 | 7000 | 21.48 | 13000 | 27.56 | 11600 | 27.79 | 17000 | |
| 27.13 | 2100 | 24.55 | 2900 | 24.55 | 3100 | 25.49 | 5400 | 26.01 | 7000 | 25.49 | 13000 | 32.71 | 11600 | 32.63 | 17000 | |
| 31.50 | 1800 | 26.25 | 2100 | 26.25 | 3100 | 27.56 | 4300 | 27.79 | 5400 | 27.56 | 9700 | | | 38.72 | 14000 | |
| 37.38 | 1700 | 31.50 | 2100 | 31.50 | 3100 | 32.71 | 4300 | 32.99 | 5400 | 32.71 | 9700 | | | | | |
| 45.17 | 1500 | 37.38 | 1800 | 37.38 | 2500 | 38.82 | 3400 | 38.72 | 4500 | 38.82 | 7800 | | | | | |
| n_1 | [1/min] | | 2800 | | 2000 | | 2000 | | 1800 | | 1500 | | 1500 | | 1000 | |
| n_{1max} | [1/min] | | 3800 | | 3000 | | 3000 | | 2500 | | 2000 | | 2000 | | 1500 | |
| F3/F3P | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| | 50.1 | 1500 | 46.3 | 2100 | 46.3 | 3100 | 41.1 | 4300 | 43.4 | 5400 | 40.3 | 9700 | 48.1 | 15600 | 46.0 | 21500 |
| | 59.1 | 2100 | 55.2 | 2900 | 55.2 | 3900 | 49.1 | 5400 | 55.2 | 7000 | 48.1 | 13000 | 57.4 | 15600 | 54.9 | 21500 |
| | 69.6 | 2100 | 62.0 | 2900 | 62.0 | 3900 | 58.6 | 5400 | 65.9 | 7000 | 57.4 | 13000 | 61.7 | 11600 | 58.5 | 21500 |
| | 75.8 | 2100 | 65.1 | 2900 | 65.1 | 3900 | 69.0 | 5400 | 74.0 | 7000 | 61.7 | 9700 | 68.5 | 15600 | 69.9 | 21500 |
| 89.3 | 2100 | 73.1 | 2900 | 73.1 | 3900 | 72.5 | 5400 | 85.4 | 7000 | 68.5 | 13000 | 73.6 | 15600 | 74.3 | 21500 | |
| 94.9 | 2100 | 81.5 | 2900 | 81.5 | 3900 | 86.5 | 5400 | 94.9 | 7000 | 73.6 | 13000 | 87.9 | 15600 | 83.6 | 21500 | |
| 101.3 | 2100 | 91.6 | 2900 | 91.6 | 3900 | 100.4 | 5400 | 102.5 | 7000 | 87.9 | 13000 | 94.5 | 11600 | 89.6 | 21500 | |
| 111.9 | 2100 | 106.4 | 2900 | 106.4 | 3900 | 111.0 | 5400 | 109.6 | 7000 | 94.5 | 9700 | 104.3 | 15600 | 104.0 | 21500 | |
| 122.3 | 2100 | 122.7 | 2900 | 122.7 | 3900 | 128.9 | 5400 | 120.4 | 5400 | 104.3 | 13000 | 112.8 | 15600 | 113.7 | 21500 | |
| 129.9 | 2100 | 128.5 | 2900 | 128.5 | 3900 | 142.4 | 4300 | 131.5 | 7000 | 112.8 | 13000 | 133.8 | 15600 | 134.9 | 21500 | |
| 140.1 | 2100 | 135.6 | 2100 | 135.6 | 3100 | 152.9 | 5400 | 138.9 | 5400 | 133.8 | 13000 | 144.7 | 11600 | 145.9 | 17000 | |
| 157.0 | 2100 | 147.3 | 2900 | 148.3 | 3900 | 165.4 | 4300 | 156.1 | 7000 | 144.7 | 9700 | 171.7 | 11600 | 158.4 | 21500 | |
| 196.7 | 2100 | 157.5 | 2100 | 157.5 | 3100 | 184.8 | 5400 | 166.8 | 5400 | 158.8 | 13000 | 203.8 | 11600 | 173.2 | 17000 | |
| 228.4 | 1800 | 178.0 | 2900 | 190.3 | 3100 | 196.3 | 4300 | 197.9 | 5400 | 171.7 | 9700 | | | 203.3 | 17000 | |
| 271.0 | 1700 | 228.4 | 2100 | 228.4 | 3100 | 237.2 | 4300 | 232.3 | 4500 | 203.8 | 9700 | | | 241.3 | 14000 | |
| 319.2 | 1700 | 271.0 | 1800 | 271.0 | 2500 | 281.5 | 3400 | | | 241.9 | 7800 | | | | | |
| 385.7 | 1500 | | | | | | | | | | | | | | | |
| n_1 | [1/min] | | 3000 | | 2800 | | 2800 | | 2000 | | 2000 | | 2000 | | 1800 | |
| n_{1max} | [1/min] | | 4000 | | 3800 | | 3800 | | 3000 | | 3000 | | 3000 | | 2500 | |
| F4/F4P | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | | i Mc | |
| | 265 | 2100 | 193 | 2900 | 193 | 3900 | 205 | 5400 | 193 | 7000 | 201 | 13000 | 201 | 15600 | 178 | 21500 |
| | 313 | 2100 | 217 | 2900 | 217 | 3900 | 242 | 5400 | 230 | 7000 | 240 | 13000 | 240 | 15600 | 226 | 21500 |
| | 368 | 2100 | 256 | 2900 | 256 | 3900 | 285 | 5400 | 259 | 7000 | 297 | 13000 | 297 | 15600 | 269 | 21500 |
| | 418 | 2100 | 302 | 2900 | 302 | 3900 | 303 | 5400 | 305 | 7000 | 354 | 13000 | 354 | 15600 | 303 | 21500 |
| 523 | 2100 | 321 | 2900 | 321 | 3900 | 351 | 5400 | 340 | 7000 | 411 | 13000 | 411 | 15600 | 349 | 21500 | |
| 608 | 2100 | 372 | 2900 | 372 | 3900 | 414 | 5400 | 382 | 7000 | 454 | 13000 | 454 | 15600 | 419 | 21500 | |
| 734 | 2100 | 439 | 2900 | 439 | 3900 | 447 | 5400 | 444 | 7000 | 527 | 13000 | 527 | 15600 | 493 | 21500 | |
| 887 | 2100 | 473 | 2900 | 473 | 3900 | 500 | 5400 | 512 | 7000 | 583 | 13000 | 583 | 15600 | 569 | 21500 | |
| 1138 | 2100 | 550 | 2900 | 550 | 3900 | 603 | 5400 | 566 | 7000 | 626 | 13000 | 626 | 15600 | 638 | 21500 | |
| 1341 | 2100 | 638 | 2900 | 638 | 3900 | 728 | 5400 | 615 | 7000 | 677 | 13000 | 677 | 15600 | 675 | 21500 | |
| 1679 | 2100 | 771 | 2900 | 771 | 3900 | 805 | 5400 | 657 | 7000 | 756 | 13000 | 756 | 15600 | 810 | 21500 | |
| 1950 | 1800 | 932 | 2900 | 932 | 3900 | 934 | 5400 | 743 | 7000 | 803 | 13000 | 803 | 15600 | 950 | 21500 | |
| 2296 | 1700 | 1075 | 2900 | 1075 | 3900 | 1129 | 5400 | 953 | 7000 | 970 | 13000 | 970 | 15600 | 1016 | 17000 | |
| 2356 | 1500 | 1266 | 2900 | 1266 | 3900 | 1340 | 5400 | 1131 | 7000 | 1152 | 13000 | 1245 | 11600 | 1220 | 17000 | |
| 2775 | 1700 | 1519 | 2900 | 1519 | 3100 | 1578 | 5400 | 1435 | 5400 | 1478 | 9700 | 1478 | 11600 | 1448 | 14000 | |
| 3293 | 1500 | 1656 | 2100 | 1656 | 3100 | 1719 | 4300 | 1684 | 4500 | 1754 | 7800 | | | | | |
| | | 1950 | 2100 | 1950 | 3100 | 2025 | 4300 | | | | | | | | | |
| | | 2314 | 1800 | 2314 | 2500 | 2403 | 3400 | | | | | | | | | |
| n_1 | [1/min] | | 3000 | | 3000 | | 3000 | | 2800 | | 2800 | | 2800 | | 2000 | |
| n_{1max} | [1/min] | | 4000 | | 4000 | | 4000 | | 3800 | | 3800 | | 3800 | | 3000 | |

Right Angle Gears



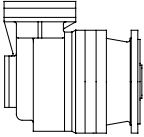
The dimensions $Y_2 \dots Y_4$ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔY . For dimensions of the standard input see pages 26...27.

For gearboxes with shrink disc the rated torque M_c is valid only for service life determination. The real transmissible torque could be limited by the shrink disc. For the transmissible torque with our shrink discs, see page 48.

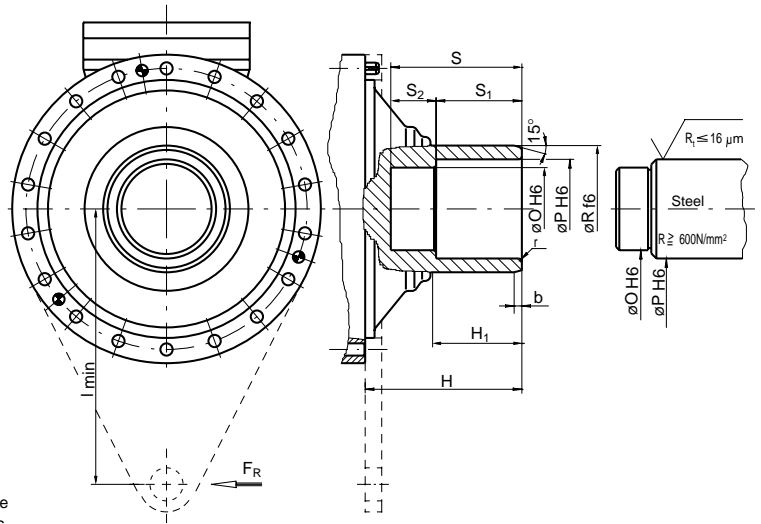
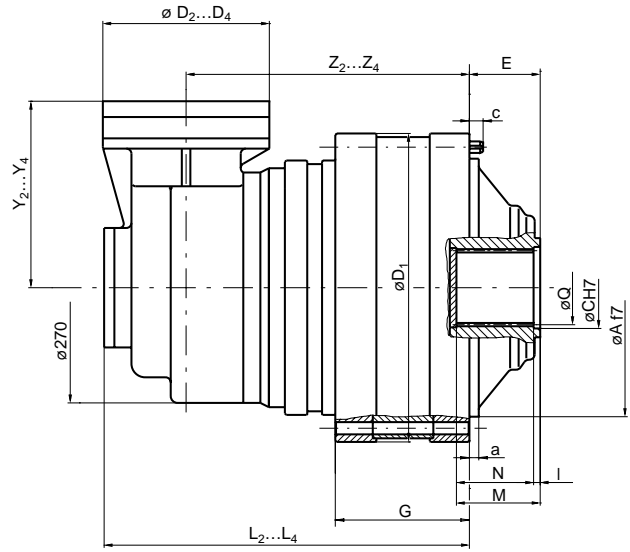
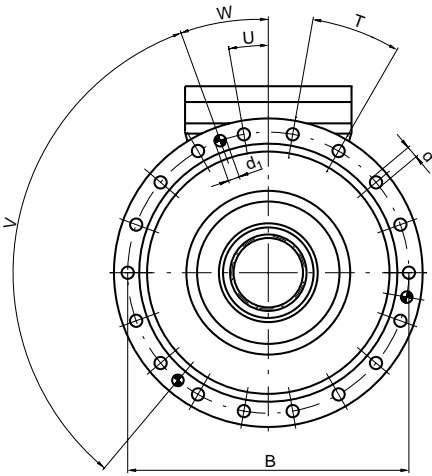
| RES | A | B | C | D_1 | D_2 | D_3 | D_4 | E | F | G | H | I | J | L_2 | L_3 | L_4 | M | N | P | Q |
|-------|-----|-----|-----|-------|-------|-------|-------|----|----|----|----|----|-----|-------|-------|-------|----|----|----|-------|
| 300 | 220 | 195 | 150 | 240 | 195 | 200 | 200 | 15 | 14 | 18 | 54 | 15 | 85 | 333.5 | 333.5 | 333.5 | 29 | 25 | 50 | 58x53 |
| 500 | 220 | 195 | 150 | 240 | 195 | 200 | 200 | 15 | 14 | 18 | 54 | 15 | 85 | 348.5 | 348.5 | 348.5 | 29 | 25 | 50 | 58x53 |
| 800 | 280 | 260 | 230 | 280 | 195 | 200 | 200 | 11 | 6 | 18 | 87 | 6 | - | 355.5 | 355.5 | 355.5 | 76 | 70 | 30 | 70x64 |
| 800FP | 280 | 250 | 200 | 280 | 195 | 200 | 200 | - | 15 | 22 | - | - | 115 | 411 | 411 | 411 | - | - | - | - |
| 1300 | 325 | 295 | 230 | 353 | 195 | 195 | 200 | 36 | 10 | 25 | 87 | 20 | 120 | 393.5 | 465 | 465 | 55 | 50 | 70 | 80x74 |

| RES | R | S_1 | S_2 | T | U | V | W | X | Y_2 | Y_3 | Y_4 | Z_2 | Z_3 | Z_4 | $F_{R \max}^{[kN]}$ | a | d_1 | I_{min} | r |
|-------|----|-------|-------|----------------------|------------|-----|----|----|-------|-------|-------|-------|-------|-------|---------------------|---|-------|-----------|---|
| 300 | 60 | 70 | 30 | $10 \times 36^\circ$ | 0° | 100 | 75 | 65 | 238 | 289.5 | 339.5 | 236.5 | 236.5 | 236.5 | 27 | 6 | 12.5 | 250 | 2 |
| 500 | 60 | 70 | 30 | $10 \times 36^\circ$ | 0° | 100 | 75 | 65 | 238 | 289.5 | 339.5 | 251.5 | 251.5 | 251.5 | 27 | 6 | 12.5 | 250 | 2 |
| 800 | 74 | - | - | $10 \times 36^\circ$ | 3° | - | - | - | 238 | 289.5 | 339.5 | 258.5 | 258.5 | 258.5 | - | - | 12.5 | - | - |
| 800FP | - | 90 | 55 | $12 \times 30^\circ$ | 15° | 110 | 85 | 70 | 238 | 289.5 | 339.5 | 314 | 314 | 314 | 32 | 7 | 15 | 350 | 3 |
| 1300 | 85 | 100 | 40 | $10 \times 36^\circ$ | 0° | 125 | 95 | 80 | 238 | 238 | 289.5 | 296.5 | 368 | 368 | 45 | 7 | 16.5 | 400 | 3 |

Female Output

| | 300 | 500 | 800 | 1300 |
|---|--------------------|--------------------|--------------------|--------------------|
|  | | | | |
| M_n | 300 [daNm] | 500 [daNm] | 800 [daNm] | 1300 [daNm] |
| F2A/F2AP | i Mc | i Mc | i Mc | i Mc |
| Stages 2 | 17.00 290 | 17.00 490 | 18.73 980 | 19.87 1100 |
| | 20.04 390 | 20.04 660 | 21.05 1100 | 25.50 1300 |
| | 25.10 320 | 25.10 570 | 24.29 980 | 30.26 1100 |
| | 29.14 290 | 29.14 490 | 29.14 750 | |
| | 35.21 220 | 35.21 360 | | |
| | | | | |
| n_1 [1/min] | 3000 | 3000 | 3000 | 3000 |
| n_{1max} [1/min] | 3500 | 3500 | 3500 | 3500 |
| F3A/F3AP | i Mc | i Mc | i Mc | i Mc |
| Stages 3 | 59.5 290 | 59.5 490 | 65.6 980 | 58.3 1300 |
| | 70.1 390 | 70.1 660 | 73.7 1100 | 69.5 1800 |
| | 82.6 390 | 82.6 660 | 77.3 980 | 82.0 1800 |
| | 87.8 320 | 87.8 570 | 86.8 1100 | 89.3 1300 |
| | 102.0 290 | 102.0 490 | 96.8 980 | 102.7 1800 |
| | 103.5 390 | 103.5 660 | 108.7 1100 | 105.2 1300 |
| | 120.2 390 | 120.2 660 | 126.3 1100 | 119.2 1800 |
| | 129.7 320 | 129.7 570 | 135.8 980 | 131.7 1300 |
| | 145.3 390 | 145.3 660 | 145.7 980 | 144.1 1800 |
| | 150.6 320 | 150.6 570 | 152.6 1100 | 153.0 1300 |
| | 171.1 390 | 171.1 660 | 160.0 980 | 184.9 1300 |
| | 174.9 290 | 174.9 490 | 179.7 1100 | 219.4 1100 |
| | 181.9 320 | 181.9 570 | 207.4 980 | |
| | 214.3 320 | 214.3 570 | 248.8 750 | |
| | 248.8 290 | 248.8 490 | | |
| | 300.7 220 | 300.7 360 | | |
| n_1 [1/min] | 3000 | 3000 | 3000 | 3000 |
| n_{1max} [1/min] | 4000 | 4000 | 4000 | 3500 |
| F4A/F4AP | i Mc | i Mc | i Mc | i Mc |
| Stages 4 | 245 390 | 245 660 | 230 980 | 204 1300 |
| | 289 390 | 289 660 | 258 1100 | 243 1800 |
| | 341 390 | 341 660 | 304 1100 | 287 1800 |
| | 362 390 | 362 660 | 358 1100 | 338 1800 |
| | 427 390 | 427 660 | 381 1100 | 359 1800 |
| | 496 390 | 496 660 | 442 1100 | 417 1800 |
| | 535 390 | 535 660 | 521 1100 | 492 1800 |
| | 599 390 | 599 660 | 562 1100 | 530 1800 |
| | 621 390 | 621 660 | 629 1100 | 594 1800 |
| | 706 390 | 706 660 | 758 1100 | 715 1800 |
| | 721 390 | 721 660 | 916 1100 | 744 1800 |
| | 751 390 | 751 660 | 1106 1100 | 864 1800 |
| | 872 390 | 872 660 | 1303 1100 | 1044 1800 |
| | 884 390 | 884 660 | 1503 980 | 1230 1800 |
| | 1026 390 | 1026 660 | 1804 750 | 1340 1300 |
| | 1053 390 | 1053 660 | | 1578 1300 |
| | 1240 390 | 1240 660 | | 1873 1100 |
| | 1553 320 | 1553 570 | | |
| | 1804 290 | 1804 490 | | |
| | 2180 220 | 2180 360 | | |
| n_1 [1/min] | 3000 | 3000 | 3000 | 3000 |
| n_{1max} [1/min] | 4000 | 4000 | 4000 | 4000 |

Right Angle Gears



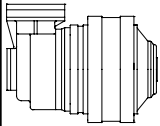
The dimensions $Y_2...Y_4$ refer to gearboxes with standard input. If there is any accessory mounted to the input side please consider length variation ΔY . For dimensions of the standard input see pages 26...27.

For gearboxes with shrink disc the rated torque M_c is valid only for service life determination. The real transmissible torque could be limited by the shrink disc. For the transmissible torque with our shrink discs, see page 48.

| RES | A | B | C | D ₁ | D ₂ | D ₃ | D ₄ | E | G | H | H ₁ | I | L ₂ | L ₃ | L ₄ | M | N | O | P | Q | R |
|-------|-----|-----|-----|----------------|----------------|----------------|----------------|-----|-----|-----|----------------|----|----------------|----------------|----------------|-----|-----|-----|-----|--------------------|-----|
| 1800 | 278 | 314 | 85 | 353 | - | 195 | 200 | 141 | 138 | 225 | 85 | 20 | - | 390 | 390 | 70 | 50 | 80 | 95 | 80x74 DIN 5482 | 125 |
| 2000 | 278 | 314 | 85 | 353 | - | 195 | 200 | 141 | 139 | 225 | 85 | 20 | - | 426.5 | 426.5 | 70 | 50 | 80 | 95 | 80x74 DIN 5482 | 125 |
| 3000 | 358 | 390 | 102 | 428 | - | 195 | 200 | 88 | 140 | 190 | 100 | 15 | - | 437 | 437 | 92 | 77 | - | 135 | 100x94 DIN 5482 | 175 |
| 4000 | 358 | 390 | 102 | 428 | - | 195 | 195 | 88 | 184 | 190 | 100 | 15 | - | 443 | 514.5 | 92 | 77 | - | 135 | 100x94 DIN 5482 | 175 |
| 6000 | 385 | 415 | 122 | 445 | - | - | 195 | 81 | 175 | 450 | 140 | 15 | - | - | 591.5 | 100 | 85 | 130 | 140 | N120x3 DIN 5480 | 185 |
| 8000 | 460 | 503 | 152 | 542 | - | - | 195 | 98 | 199 | 427 | 147 | 20 | - | - | 639 | 120 | 100 | - | 160 | N150x5 DIN 5480 | 200 |
| 10000 | 460 | 503 | 162 | 542 | - | - | 195 | 98 | 219 | 437 | 147 | 20 | - | - | 659 | 120 | 100 | - | 170 | N160x5 DIN 5480 | 220 |

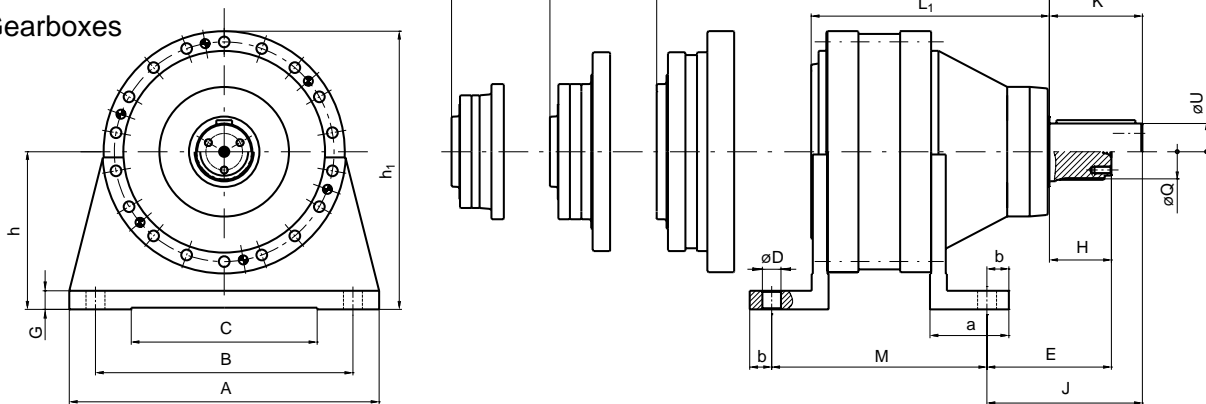
| RES | S | S ₁ | S ₂ | T | U | V | W | Y ₂ | Y ₃ | Y ₄ | Z ₂ | Z ₃ | Z ₄ | a | b | c | d | d ₁ | l _{min} | r | F _R [kN] |
|-------|-----|----------------|----------------|--------|-----|--------|------|----------------|----------------|----------------|----------------|----------------|----------------|----|---|----|------|----------------|------------------|-------|---------------------|
| 1800 | 140 | 100 | 40 | 12x30° | 0° | 3x120° | 15° | - | 238 | 289.5 | - | 293 | 293 | 8 | 4 | 15 | 16.5 | 12 | 560 | 3 | 52 |
| 2000 | 140 | 100 | 40 | 12x30° | 15° | 3x120° | 0° | - | 238 | 289.5 | - | 329.5 | 329.5 | 8 | 4 | 15 | 16.5 | 12 | 560 | 3 | 52 |
| 3000 | 153 | 150 | - | 18x20° | 5° | 3x120° | 115° | - | 238 | 289.5 | - | 340 | 340 | 13 | 4 | 19 | 17 | 16 | 800 | 3 | 65 |
| 4000 | 153 | 150 | - | 18x20° | 0° | 3x120° | 10° | - | 238 | 238 | - | 346 | 417.5 | 13 | 4 | 19 | 17 | 16 | 800 | 3 | 65 |
| 6000 | 225 | 150 | 60 | 18x20° | 5° | 3x120° | 115° | - | - | 238 | - | - | 494.5 | 13 | 5 | 20 | 17 | 16 | 900 | 5x30° | 77 |
| 8000 | 164 | 149 | - | 20x15° | 15° | 4x90° | 0° | - | - | 238 | - | - | 542 | 13 | 5 | 25 | 21 | 20 | 1100 | 5x15° | 118 |
| 10000 | 164 | 149 | - | 20x15° | 15° | 4x90° | 0° | - | - | 238 | - | - | 542 | 13 | 5 | 25 | 21 | 20 | 1100 | 5x15° | 142 |

Female Output

|  | 1800 | | 2000 | | 3000 | | 4000 | | 6000 | | 8000 | | 10000 | |
|--|-------------|----|-------------|----|-------------|----|-------------|----|-------------|----|-------------|----|--------------|----|
| M_n | 1800 [daNm] | | 2000 [daNm] | | 3000 [daNm] | | 4000 [daNm] | | 6000 [daNm] | | 8000 [daNm] | | 10000 [daNm] | |
| F2A/F2AP | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc |
| Stages | 2 | | | | | | | | | | | | | |
| n_1 [1/min] | | | | | | | | | | | | | | |
| n_{1max} [1/min] | | | | | | | | | | | | | | |
| F3A/F3AP | i | Mc | i | Mc | i | Mc | i | Mc | | | | | | |
| Stages | 3 | | | | | | | | | | | | | |
| n_1 [1/min] | 3000 | | 3000 | | 3000 | | 3000 | | | | | | | |
| n_{1max} [1/min] | 3500 | | 3500 | | 3500 | | 3500 | | | | | | | |
| F4A/F4AP | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc | i | Mc |
| Stages | 4 | | | | | | | | | | | | | |
| n_1 [1/min] | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | | 3000 | |
| n_{1max} [1/min] | 4000 | | 4000 | | 4000 | | 3500 | | 3500 | | 3500 | | 3500 | |

1.000 - 13.000 Nm

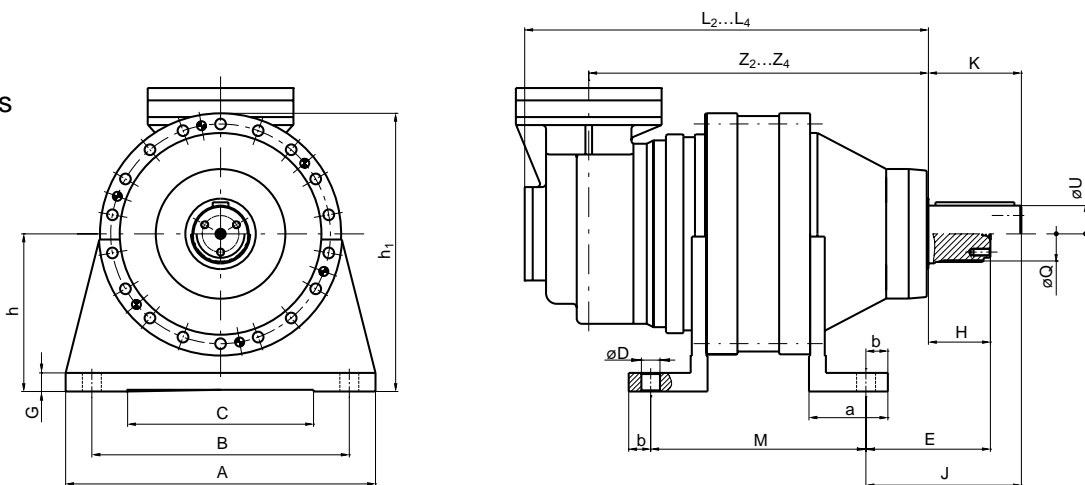
In-line Gearboxes



For other dimensions and technical features see data sheets for flange mounted gearboxes

| RES | A | B | C | D | E | G | H | J | K | L ₁ | L ₂ | L ₃ | L ₄ | M | Q | U | a | b | h | h ₁ |
|------|-----|-----|-----|----|-------|----|----|-------|-----|----------------|----------------|----------------|----------------|-------|-------|----|----|----|-----|----------------|
| 100 | 240 | 180 | - | 17 | 31 | 13 | 55 | 34 | 58 | 129 | 179 | 229 | 279 | 115.5 | 40x36 | 38 | 55 | 20 | 132 | 232 |
| 200 | 240 | 180 | - | 17 | 31 | 13 | 55 | 34 | 58 | 141 | 191 | 241 | 291 | 115.5 | 40x36 | 38 | 55 | 20 | 132 | 232 |
| 300 | 310 | 254 | - | 18 | 49 | 20 | 68 | 86 | 105 | 187.5 | 230 | 280 | 330 | 142 | 58x53 | 60 | 55 | 21 | 160 | 280 |
| 400 | 310 | 254 | - | 18 | 49 | 20 | 68 | 86 | 105 | - | 245 | 295 | 345 | 142 | 58x53 | 60 | 55 | 21 | 160 | 280 |
| 500 | 310 | 254 | - | 18 | 49 | 20 | 68 | 86 | 105 | 202.5 | 257 | 307 | 357 | 142 | 58x53 | 60 | 55 | 21 | 160 | 280 |
| 800R | 350 | 270 | - | 22 | 160.5 | 23 | 90 | 200.5 | 130 | 293.5 | 346.5 | 389 | 439 | 163 | 70x64 | 80 | 90 | 37 | 208 | 348 |
| 1000 | 382 | 318 | 254 | 25 | 156 | 23 | 90 | 236 | 170 | - | 325 | 367.5 | 417.5 | 236 | 80x74 | 90 | 85 | 32 | 225 | 401.5 |
| 1300 | 382 | 318 | 254 | 25 | 156 | 23 | 90 | 236 | 170 | 272 | 340 | 394.5 | 444.5 | 236 | 80x74 | 90 | 85 | 32 | 225 | 401.5 |

Right-angle Gears

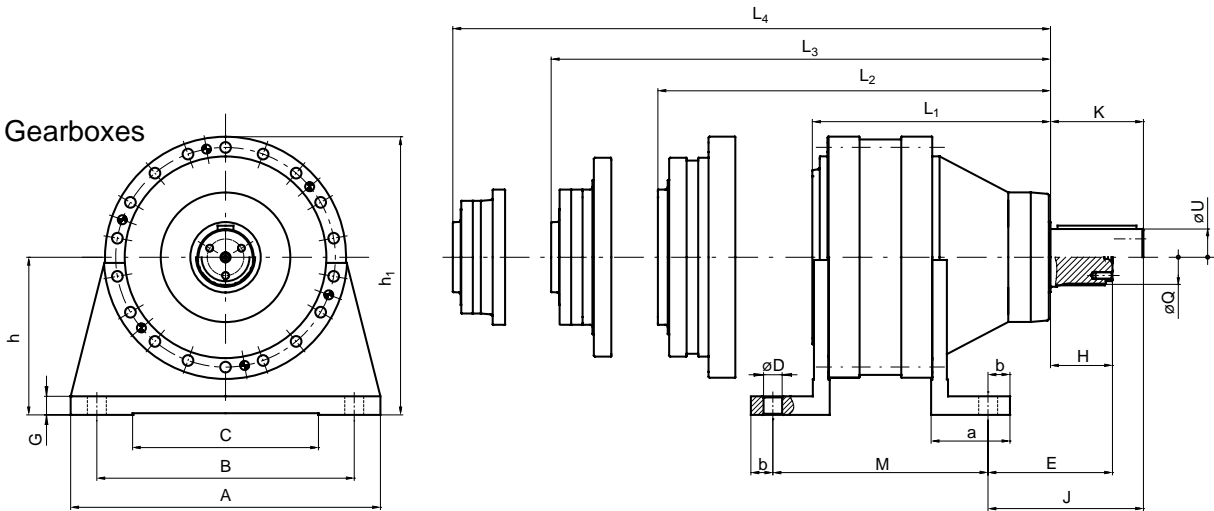


For other dimensions and technical features see data sheets for flange mounted gearboxes

| RES | A | B | C | D | E | G | H | J | K | L ₂ | L ₃ | L ₄ | M | Q | U | Z ₂ | Z ₃ | Z ₄ | a | b | h | h ₁ |
|------|-----|-----|-----|----|-------|----|----|-------|-----|----------------|----------------|----------------|-----|-------|----|----------------|----------------|----------------|----|----|-----|----------------|
| 300 | 310 | 254 | - | 18 | 49 | 20 | 68 | 86 | 105 | 348.5 | 348.5 | 348.5 | 142 | 58x53 | 60 | 251.5 | 251.5 | 251.5 | 55 | 21 | 160 | 280 |
| 500 | 310 | 254 | - | 18 | 49 | 20 | 68 | 86 | 105 | 363.5 | 363.5 | 363.5 | 142 | 58x53 | 60 | 266.5 | 266.5 | 266.5 | 55 | 21 | 160 | 280 |
| 800R | 350 | 270 | - | 22 | 160.5 | 23 | 90 | 200.5 | 130 | 451 | 451 | 451 | 163 | 70x64 | 80 | 354 | 354 | 354 | 90 | 37 | 208 | 348 |
| 1300 | 382 | 318 | 254 | 25 | 156 | 23 | 90 | 236 | 170 | 429.5 | 501 | 501 | 236 | 80x74 | 90 | 332.5 | 404 | 404 | 85 | 32 | 225 | 401.5 |

20.000 - 150.000 Nm

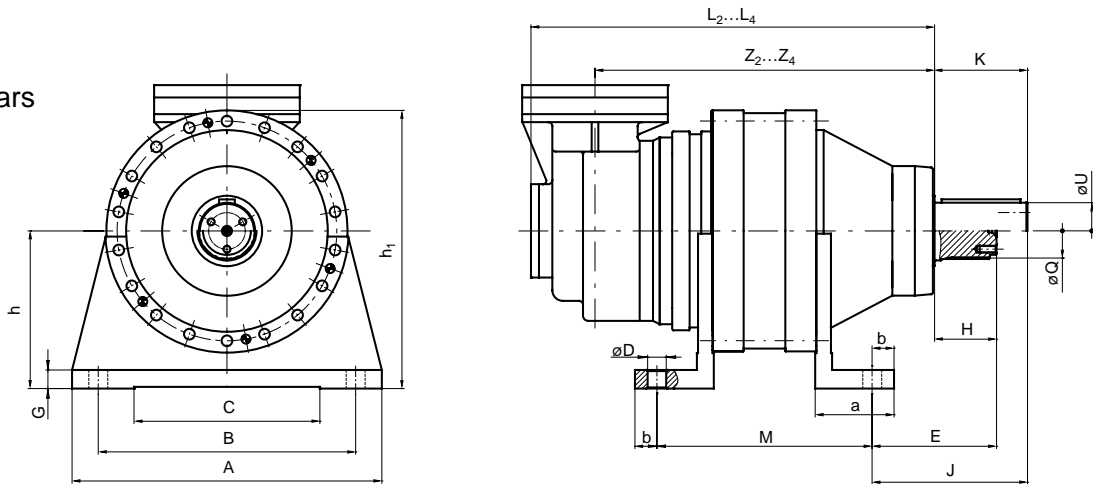
In-line Gearboxes



For other dimensions and technical features see data sheets for flange mounted gearboxes

| RES | A | B | C | D | E | G | H | J | K | L ₁ | L ₂ | L ₃ | L ₄ | M | Q | U | a | b | h | h ₁ |
|-------|-----|-----|-----|----|-------|----|-----|-------|-----|----------------|----------------|----------------|----------------|-----|--------|-----|-----|------|-----|----------------|
| 2000 | 445 | 356 | 265 | 25 | 144 | 22 | 90 | 224 | 170 | 302 | 410 | 463 | 505.5 | 313 | 80x74 | 90 | 122 | 33 | 225 | 401.5 |
| 3000 | 550 | 457 | 330 | 33 | 221 | 32 | 110 | 276 | 165 | 405 | 489.5 | 542.5 | 585 | 338 | 100x94 | 100 | 140 | 39 | 280 | 494 |
| 4000 | 550 | 457 | 330 | 33 | 241 | 32 | 130 | 276 | 165 | 409.5 | 495.5 | 563.5 | 618 | 382 | W120x3 | 120 | 140 | 39 | 280 | 494 |
| 6000 | 550 | 457 | 330 | 33 | 242.5 | 32 | 130 | 277.5 | 165 | 437 | 553 | 661 | 714 | 404 | W120x3 | 120 | 157 | 39 | 280 | 502.5 |
| 8000 | 620 | 508 | 380 | 39 | 319 | 32 | 150 | 369 | 200 | 525 | 674.5 | 760.5 | 828.5 | 419 | W150x5 | 150 | 174 | 61.5 | 315 | 586 |
| 10000 | 620 | 508 | 380 | 39 | 339 | 32 | 170 | 369 | 200 | 545 | 694.5 | 780.5 | 848.5 | 439 | W170x5 | 170 | 174 | 61.5 | 315 | 586 |
| 15000 | 850 | 700 | 550 | 45 | 227 | 45 | 200 | 287 | 260 | 460 | 624 | 740 | 848 | 450 | W200x5 | 200 | 227 | 100 | 415 | 762.5 |

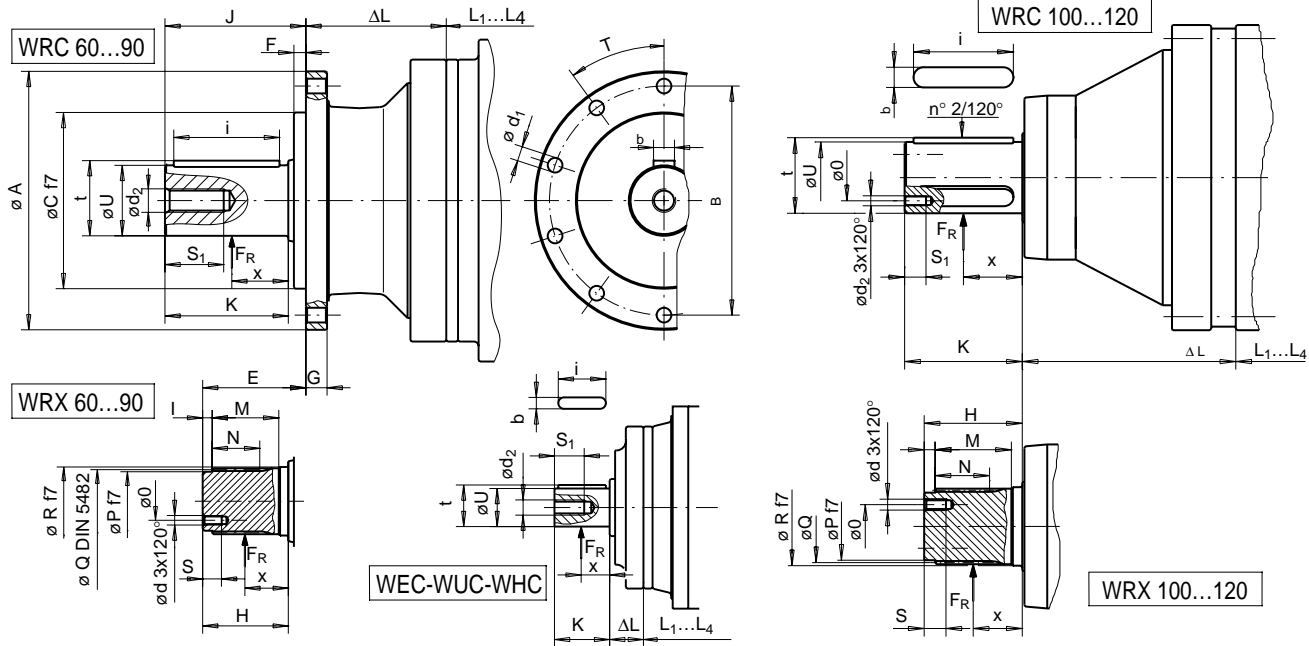
Right-angle Gears



For other dimensions and technical features see data sheets for flange mounted gearboxes

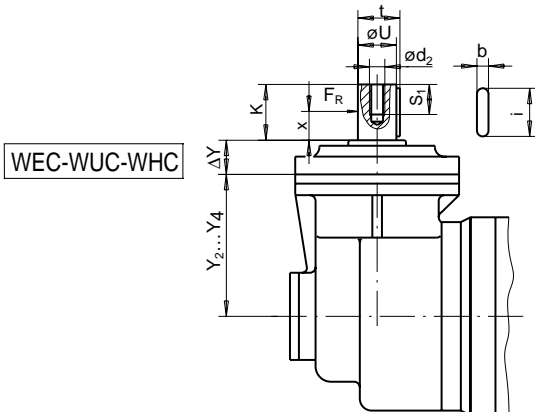
| RES | A | B | C | D | E | G | H | J | K | L ₂ | L ₃ | L ₄ | M | Q | U | Z ₂ | Z ₃ | Z ₄ | a | b | h | h ₁ |
|-------|-----|-----|-----|----|-------|----|-----|-------|-----|----------------|----------------|----------------|-----|--------|-----|----------------|----------------|----------------|-----|------|-----|----------------|
| 2000 | 445 | 356 | 265 | 25 | 144 | 22 | 90 | 224 | 170 | - | 567.5 | 567.5 | 313 | 80x74 | 90 | - | 470.5 | 470.5 | 122 | 33 | 225 | 401.5 |
| 3000 | 550 | 457 | 330 | 33 | 221 | 32 | 110 | 276 | 165 | - | 647 | 647 | 338 | 100x94 | 100 | - | 550 | 550 | 140 | 39 | 280 | 494 |
| 4000 | 550 | 457 | 330 | 33 | 241 | 32 | 130 | 276 | 165 | - | 653 | 724.5 | 382 | W120x3 | 120 | - | 556 | 627.5 | 140 | 39 | 280 | 494 |
| 6000 | 550 | 457 | 330 | 33 | 242.5 | 32 | 130 | 277.5 | 165 | - | - | 818.5 | 404 | W120x3 | 120 | - | - | 721.5 | 157 | 39 | 280 | 502.5 |
| 8000 | 620 | 508 | 380 | 39 | 319 | 32 | 150 | 369 | 200 | - | - | 918 | 419 | W150x5 | 150 | - | - | 821 | 174 | 61.5 | 315 | 586 |
| 10000 | 620 | 508 | 380 | 39 | 339 | 32 | 170 | 369 | 200 | - | - | 938 | 439 | W170x5 | 170 | - | - | 841 | 174 | 61.5 | 315 | 586 |

Mounting on in-line gears



| Type | A | B | C | F | G | J | K | O | S ₁ | T | U | b | d ₁ | d ₂ | i | t | x | F _R [kN] |
|---------|-----|-----|-----|----|----|-----|-----|----|----------------|--------|-------|----|----------------|----------------|-----|-----|------|---------------------|
| WEC 40 | | | | | | | 58 | | 20 | | 40j6 | 12 | | M10 | 50 | 43 | 29 | 1.4 |
| WUC 40 | | | | | | | 58 | | 20 | | 40j6 | 12 | | M10 | 50 | 43 | 29 | 2.1 |
| WHC 40 | | | | | | | 58 | | 20 | | 40j6 | 12 | | M10 | 50 | 43 | 29 | 2.5 |
| WRC 60 | 220 | 195 | 150 | 14 | 18 | 120 | 105 | | 50 | 10x36° | 60h6 | 18 | 12.5 | M20 | 90 | 64 | 52.5 | 8.3 |
| WRC 65 | 272 | 245 | 175 | 10 | 20 | 144 | 105 | | 50 | 10x36° | 65h6 | 18 | 12.5 | M20 | 90 | 69 | 52.5 | 13.3 |
| WRC 80 | 280 | 250 | 200 | 15 | 22 | 170 | 130 | | 50 | 12x30° | 80h6 | 22 | 15 | M20 | 110 | 85 | 65 | 15 |
| WRC 90 | 325 | 295 | 230 | 10 | 25 | 206 | 170 | | 50 | 10x36° | 90h6 | 25 | 16.5 | M20 | 150 | 95 | 85 | 16.2 |
| WRC 100 | | | | | | | 165 | 65 | 30 | | 100h6 | 28 | | M14 | 140 | 106 | 82.5 | 32 |
| WRC 120 | | | | | | | 165 | 70 | 35 | | 120h6 | 32 | | M16 | 140 | 127 | 82.5 | 32 |

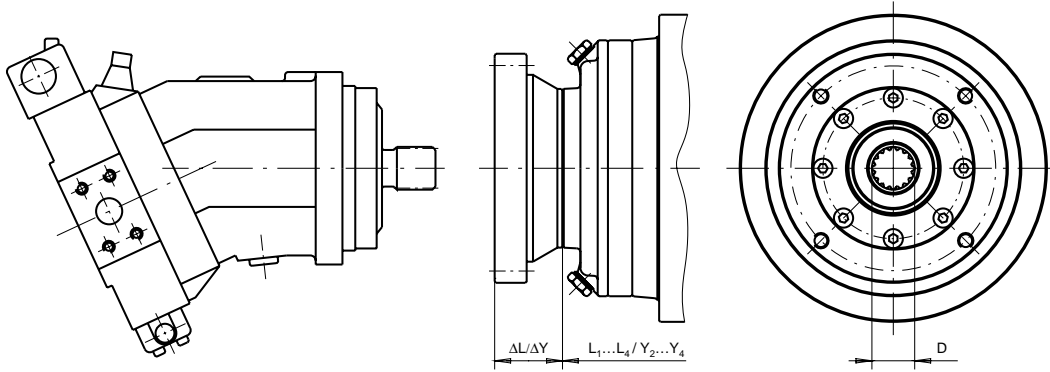
| Type | A | B | C | E | F | G | H | I | M | N | O | P | Q | R | S | T | d | d ₁ | x | F _R [kN] |
|---------|-----|-----|-----|-----|----|----|-----|----|-----|----|----|-----|--------------------|-----|----|--------|-----|----------------|------|---------------------|
| WRX 60 | 220 | 195 | 150 | 83 | 14 | 18 | 68 | 8 | 50 | 38 | 32 | 50 | 58x53 | 60 | 20 | 10x36° | M10 | 12.5 | 52.5 | 8.3 |
| WRX 65 | 272 | 245 | 175 | 119 | 10 | 20 | 80 | 8 | 65 | 50 | 32 | 50 | 58x53 | 60 | 20 | 10x36° | M10 | 12.5 | 52.5 | 13.3 |
| WRX 80 | 280 | 250 | 200 | 130 | 15 | 22 | 90 | 10 | 70 | 50 | 40 | 62 | 70x64 | 72 | 20 | 12x30° | M10 | 15 | 65 | 15 |
| WRX 90 | 325 | 295 | 230 | 126 | 10 | 25 | 90 | 10 | 70 | 50 | 45 | 50 | 80x74 | 85 | 25 | 10x36° | M12 | 16.5 | 85 | 16.2 |
| WRX 100 | | | | | | | 110 | 12 | 86 | 66 | 65 | 85 | 100x94 DIN 5482 | 105 | 30 | | M14 | | 82.5 | 32 |
| WRX 120 | | | | | | | 130 | 10 | 105 | 88 | 70 | 100 | W120x3 DIN 5480 | 122 | 35 | | M16 | | 82.5 | 32 |



Mounting on right-angle gears

| Type | K | S ₁ | U | b | d ₂ | i | t | x | F _R [kN] |
|--------|----|----------------|-------|----|----------------|----|----|----|---------------------|
| WEC 40 | 58 | 20 | 40 j6 | 12 | M 10 | 50 | 43 | 29 | 1.4 |
| WEC 48 | 79 | 28 | 48 k5 | 14 | M 22 | 70 | 52 | 40 | 1.6 |
| WUC 40 | 58 | 20 | 40 j6 | 12 | M 10 | 50 | 43 | 29 | 2.1 |
| WHC 40 | 58 | 20 | 40 j6 | 12 | M 10 | 50 | 43 | 29 | 2.5 |

Hydraulic motors



The letter in the "flange type" column refers to the gearbox input flange.
For availability please see tables on pages 26...27.

For motor couplings not shown please contact the Technical Service Department.

| Kode Codice Code | Motortyp Tipo motore Motor type | CHAR-LYNN (EATON) | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|-------------------|-----------|-------|---|
| SA7 | 2-080...2-500 | SAE-A | ∅ 25.4 | 35 | U |
| SA6 | 2-080...2-500 | SAE-A | ∅ 31.75 | 47 | U |
| SA2 | 2-080...2-500 | SAE-A | 1" 6B | 35 | U |
| SA5 | 2-080...2-500 | SAE-A | ∅ 32 | 47 | U |
| SB3 | 2-080...2-500 | SAE-B | 16/32 13T | 56 | U |
| SB2 | 2-080...2-500 | SAE-B | 1" 6B | 56 | U |
| SB7 | 2-080...2-500 | SAE-B | ∅ 25.4 | 56 | U |

| Kode Codice Code | Motortyp Tipo motore Motor type | DANFOSS | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|---------|-----------|-------|---|
| SA1 | OMP | | ∅ 25 | 35 | U |
| SA7 | OMP | | ∅ 25.4 | 35 | U |
| SA2 | OMP | | 1" 6B | 35 | U |
| SA1 | OMR | | ∅ 25 | 35 | U |
| SA5 | OMR | | ∅ 32 | 47 | U |
| SA7 | OMR | | ∅ 25.4 | 35 | U |
| SA2 | OMR | | 1" 6B | 35 | U |
| SA5 | OMS | | ∅ 32 | 47 | U |
| SA4 | OMS | | 12/24 14T | 47 | U |
| IC3 | OMT | | ∅ 40 | 135 | U |
| IC4 | OMT | | 12/24 17T | 135 | U |
| IE3 | OMV | | ∅50 | 143 | U |

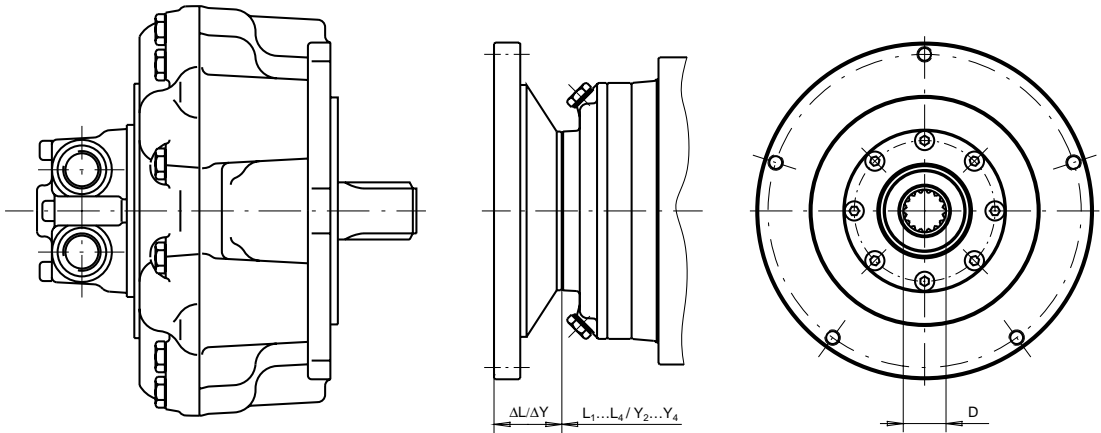
| Kode Codice Code | Motortyp Tipo motore Motor type | HÄGGLUNDS ABEX DENISON | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|---------------------------|-----------|-------|---|
| SB3 | M1 C | | 16/32 13T | 56 | U |
| SB3 | M4 C | | 16/32 13T | 56 | U |
| SC4 | M4 D | | 12/24 14T | 39.5 | U |
| SC4 | M4 E | | 12/24 14T | 39.5 | U |
| SC4 | M3 D | | 12/24 14T | 39.5 | U |
| SB8 | M4 C | | ∅ 22.22 | 56 | U |
| SC4 | M6-M7 | | 12/24 14T | 39.5 | U |

| Kode Codice Code | Motortyp Tipo motore Motor type | HYDROMATIK REXROTH | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|-----------------------|--------------|-------|---|
| IA1 | A2FM 10-12 | | ∅ 20 | 40 | U |
| IA2 | A2FM 16 | | ∅ 25 | 40 | U |
| IA3 | A2FM 10-12 | | W 20x1.25x14 | 40 | U |
| IA4 | A2FM 10-12-16 | | W 25x1.25x18 | 40 | U |
| IB1 | A2FM 23-28-32 | | W 30x2x14 | 42 | U |
| IC1 | A2FM 45 | | W 30x2x14 | 53 | U |
| IC2 | A2FM 56-63 | | W 35x2x16 | 53 | U |
| ID1 | A2FM 80 | | W 35x2x16 | 53 | U |
| IE1 | A2FM 107-125 | | W 45x2x21 | 111 | U |
| IF1 | A2FM 160-180 | | W 50x2x30 | 116 | U |
| IG1 | A2FM 200 | | W 50x2x30 | 116 | U |

| Kode Codice Code | Motortyp Tipo motore Motor type | LINDE | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|-------|-----------|-------|---|
| SC4 | MMF 63 | | 12/24 14T | 39.5 | U |
| LA1 | BMF-BMV 50 | | B 30x27 | 55 | U |
| LB1 | BMF-BMV 75 | | B 35x31 | 58 | U |
| | | | | | |
| | | | | | |
| | | | | | |

| Kode Codice Code | Motortyp Tipo motore Motor type | OIL DRIVE | D | ΔL/ΔY | Flanschtyp Tipo flangia Flange type |
|------------------------|---------------------------------------|-----------|--------|-------|---|
| SA1 | MGL/MGLR-XXX-A-25 | | ∅ 25 | 35 | U |
| SA7 | MGL/MGLR-XXX-A-25.4 | | ∅ 25.4 | 35 | U |
| SA2 | MGL/MGLR-XXX-A-1"6B | | 1" 6B | 35 | U |
| SA1 | MGT-XXX-A/B-25 | | ∅ 25 | 35 | U |
| SA7 | MGT-XXX-A/B-25.4 | | ∅ 25.4 | 35 | U |
| SA2 | MGT-XXX-A/B-1"6B | | 1" 6B | 35 | U |
| | | | | | |
| | | | | | |

Hydraulic motors



| Code | Motor type | SAI | D | ΔL/ΔY | Flange type |
|------|------------|-----|------------------------------|-------|---|
| M0A | M05/P05 | | f. 28UNI221(#3) | 0 | A |
| M01 | M05/P05 | | m. 28UNI221(#1) | 40 | U |
| M11 | M1/P1 | | m. 28UNI221(#1) | 22 | U |
| M23 | M2/M3/P2 | | f. 36UNI220(#3) | 44 | U |
| M21 | M2 | | m. 36UNI220(#1) | 51.5 | U |
| M03 | M05/P05 | | f. 28UNI221(#3) | -6.5 | B |
| M13 | M1/P1 | | f. 28UNI221(#3) | -3 | B |
| M3B | M2/M3/P2 | | f.40-3-12(#9)/m.36uni220(#1) | 7 | B <small>nur RES 500 solo RES 500 only RES 500</small> |
| M3C | M2/M3/P2 | | f. 40-3-12(#9) | -11 | C <small>nur RES 800 solo RES 800 only RES 800</small> |
| M1C | M1/P1 | | m. 28UNI221(#1) | -13 | C <small>nur RES 800 solo RES 800 only RES 800</small> |
| M39 | M2/M3/P2 | | f. 40-3-12(#9) | -4 | C <small>nur RES 1300/2000 solo RES 1300/2000 only RES 1300/2000</small> |
| M49 | M4 | | f. 55-3-17(#9) | -4 | C <small>nur RES 1300/2000 solo RES 1300/2000 only RES 1300/2000</small> |
| M59 | M5 | | f. 55-3-17(#9) | 1 | D <small>nur RES 4000 solo RES 4000 only RES 4000</small> |
| L7D | L7 | | f. 80-3-25(#9) | 57 | D <small>nur RES 4000/6000 solo RES 4000/6000 only RES 4000/6000</small> |
| L7E | L7 | | f. 80-3-25(#9) | -14 | E <small>nur RES 8000 solo RES 8000 only RES 8000</small> |

| Code | Motor type | SAM HYDRAULIK | D | ΔL/ΔY | Flange type |
|------|---------------------|---------------|-------|-------|-------------|
| SA1 | AG-AGS 50-400 NC 25 | | ø 25 | 35 | U |
| SA2 | AG-AGS 50-400 NS 25 | | 1" 6B | 35 | U |
| SA1 | AR-ARS 80-400 NC 25 | | ø 25 | 35 | U |
| SA2 | AR-ARS 80-400 NS 25 | | 1" 6B | 35 | U |

| Code | Motor type | SAUER SUNDSTRAND | D | ΔL/ΔY | Flange type |
|------|--------------------|------------------|-----------|-------|-------------|
| SM1 | OMF-SMF 15 | | ø 19 | 20 | U |
| SB3 | OMF-SMF-OMV-SMV 18 | | 16/32 13T | 56 | U |
| SB3 | SMF 5/019...028 | | 16/32 13T | 56 | U |

| Code | Motor type | TRW TORQMOTOR | D | ΔL/ΔY | Flange type |
|------|----------------------|---------------|-----------|-------|-------------|
| SA1 | MAB 710-xxxx-11X-000 | | ø 25 | 35 | U |
| SA7 | MAB 710-xxxx-12X-000 | | ø 25.4 | 35 | U |
| SA2 | MAB 710-xxxx-13X-000 | | 1" 6B | 35 | U |
| SA6 | MAB 710-xxxx-15X-000 | | ø 31.75 | 47 | U |
| SA4 | MAE 740-xxxx-14X-000 | | 12/24 14T | 47 | U |
| SA6 | MAE 740-xxxx-15X-000 | | ø 31.75 | 47 | U |
| SA1 | MC 700-xxxx-11X-000 | | ø 25 | 35 | U |
| SA7 | MC 700-xxxx-12X-000 | | ø 25.4 | 35 | U |

| Code | Motor type | TRW TORQMOTOR | D | ΔL/ΔY | Flange type |
|------|---------------------|---------------|-----------|-------|-------------|
| SA2 | MC 700-xxxx-13X-000 | | 1" 6B | 35 | U |
| SA1 | MF 760-xxxx-11X-000 | | ø 25 | 35 | U |
| SA7 | MF 760-xxxx-12X-000 | | ø 25.4 | 35 | U |
| SA2 | MF 760-xxxx-13X-000 | | 1" 6B | 35 | U |
| SA1 | MB 730-xxxx-11X-000 | | ø 25 | 35 | U |
| SA7 | MB 730-xxxx-12X-000 | | ø 25.4 | 35 | U |
| SA2 | MB 730-xxxx-13X-000 | | 1" 6B | 35 | U |
| SA6 | MB 730-xxxx-15X-000 | | ø 31.75 | 47 | U |
| SA5 | MB 730-xxxx-17X-000 | | ø 32 | 47 | U |
| SA4 | ME 780-xxxx-14X-000 | | 12/24 14T | 47 | U |
| SA6 | ME 780-xxxx-15X-000 | | ø 31.75 | 47 | U |

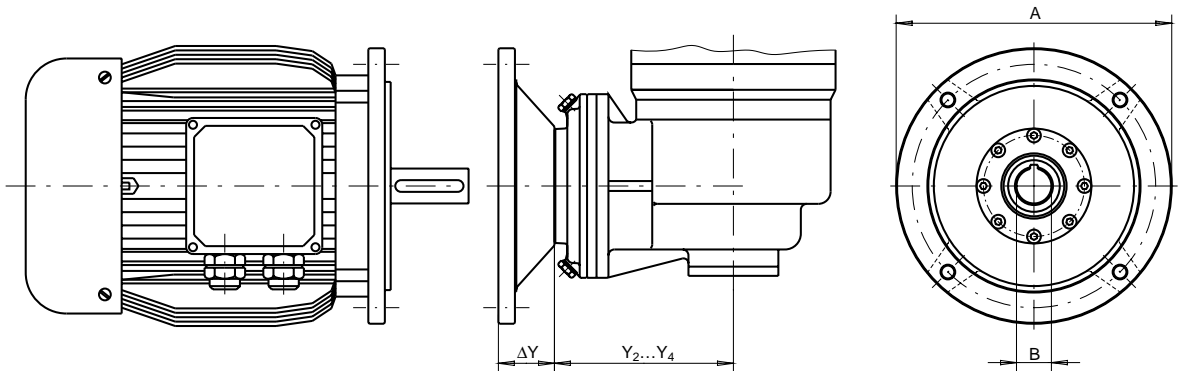
| Code | Motor type | VICKERS | D | ΔL/ΔY | Flange type |
|------|-----------------|---------|-----------|-------|-------------|
| SB3 | 25N-XXX-A11 | | 16/32 13T | 56 | U |
| SC4 | 35-45M-XXX-A11X | | 12/24 14T | 39.5 | U |

| Code | Motor type | VOLVO | D | ΔL/ΔY | Flange type |
|------|-------------|-------|-----------|-------|-------------|
| IB1 | F12-30 | | W 30x2x14 | 42 | U |
| IC1 | F12-40 | | W 30x2x14 | 53 | U |
| IC2 | F12-60 | | W 35x2x14 | 53 | U |
| ID1 | F12-80 | | W 35x2x16 | 53 | U |
| SB3 | F11-19 | | 16/32 13T | 56 | U |
| SB1 | F11-28 | | ø 25 | 56 | U |
| SC4 | V11-060/080 | | 12/24 14T | 39.5 | U |

| Code | Motor type | WHITE | D | ΔL/ΔY | Flange type |
|------|---------------------|-------|-----------|-------|-------------|
| SA4 | RE-XX-19-05 | | 12/24 14T | 47 | U |
| SA5 | RE-XX-19-09 | | ø 32 | 47 | U |
| SA6 | RE-XX-19-04 | | ø 31.75 | 47 | U |
| SA7 | RE-XX-19-06 | | ø 25.4 | 35 | U |
| SA2 | RE-XX-19-02 | | 1" 6B | 35 | U |
| SA3 | RE-XX-19-30 | | 16/32 13T | 35 | U |
| SA7 | HS/RS-XX-03-01 | | ø 25.4 | 35 | U |
| SA2 | HS/RS-XX-03-06 | | 1" 6B | 35 | U |
| SA3 | HS/RS-XX-03...09-07 | | 16/32 13T | 35 | U |
| SA1 | HS/RS-XX-03...09-08 | | ø 25 | 35 | U |

Electric motors

Right-angle gears



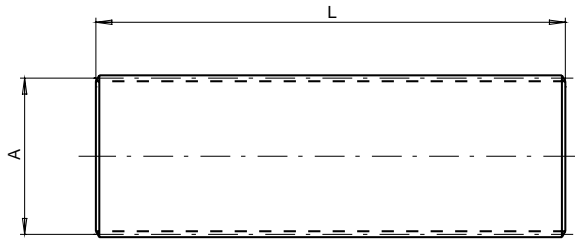
3.000 - 13.000 Nm

| Type | Code | A | B | Gearbox-type/length variation | | | | | | | | | | | |
|----------------|------|-----|-------|-------------------------------|-------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | 300 | | | 500 | | | 800 | | | 1300 | | |
| | | | | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 |
| IEC 56 | E56 | 120 | 9 | | | 20 | | | | | | | | | |
| IEC 63 | E63 | 140 | 11 | | | 20 | | | 20 | | | | | | |
| IEC 71 | E71 | 160 | 14 | | | 20 | | | 20 | | | | | | |
| IEC 80 | E80 | 200 | 19 | | 30 | 30 | | | 30 | | | 30 | | | 30 |
| IEC 90 | E90 | 200 | 24 | | 30 | 30 | | | 30 | 30 | | 30 | | | 30 |
| IEC 100/112 | E10 | 250 | 28 | 48 | 48 | | | | 48 | | | 48 | 48 | | 48 |
| IEC 132 | E13 | 300 | 38 | 102 | | | | 102 | 102 | | | 102 | | | 102 |
| IEC 160 | E16 | 350 | 42 | 127 | | | | 127 | | | 127 | 127 | | 127 | 127 |
| IEC 180 | E18 | 350 | 48 | | | | | 127 | | | 127 | | 127 | 127 | |
| IEC 200 | E20 | 400 | 55 | | | | | | | 127 | | | 127 | | |
| IEC 225 | E22 | 450 | 60 | | | | | | | 175.8 | | | 175.8 | | |
| NEMA 56 | N56 | 168 | 15.58 | | | 34 | | | | | | | | | |
| NEMA 143/145TC | N14 | 168 | 22.23 | | | 34 | | | 34 | | | | | | |
| NEMA 182/184TC | N18 | 228 | 25.58 | | 50 | 50 | | | 50 | 50 | | | 50 | | 50 |
| NEMA 213/215TC | N21 | 228 | 34.93 | 116.5 | 116.5 | | | | 116.5 | | | 116.5 | 116.5 | | 116.5 |
| NEMA 254/256TC | N25 | 228 | 41.28 | 116.5 | | | | 116.5 | 116.5 | | | 116.5 | | 116.5 | 116.5 |
| NEMA 284/286TC | N28 | 277 | 47.63 | 132 | | | | 132 | | | 132 | 132 | | 132 | |
| NEMA 324/326TC | N32 | 328 | 53.98 | | | | | 170.8 | | | 170.8 | | 170.8 | | |
| NEMA 364/365TC | N36 | 328 | 60.33 | | | | | | | 186.7 | | | 186.7 | | |
| NEMA 404/405TC | N40 | 328 | 73.03 | | | | | | | 221.5 | | | 221.5 | | |

18.000 - 100.000 Nm

| Type | Code | A | B | Gearbox-type/length variation | | | | | | | | | | | |
|----------------|------|-----|-------|-------------------------------|-------|-------|---|------|-------|-------|-------|-------|-------|-------|-------|
| | | | | 1800 | | 2000 | | 3000 | | 4000 | | 6000 | 8000 | 10000 | |
| | | | | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | |
| IEC 63 | E63 | 140 | 11 | | | | | | | | | | | | |
| IEC 71 | E71 | 160 | 14 | | 20 | | | | | | | | | | |
| IEC 80 | E80 | 200 | 19 | | 30 | | | | | | | | | | |
| IEC 90 | E90 | 200 | 24 | | 30 | | | | 30 | | | | | | |
| IEC 100/112 | E10 | 250 | 28 | | 48 | | | | 48 | | | 48 | | | |
| IEC 132 | E13 | 300 | 38 | 102 | 102 | 102 | | | 102 | 102 | | 102 | | 102 | |
| IEC 160 | E16 | 350 | 42 | 127 | | 127 | | | 127 | 127 | 127 | 127 | | 127 | 127 |
| IEC 180 | E18 | 350 | 48 | 127 | | 127 | | | 127 | | 127 | | 127 | | 127 |
| IEC 200 | E20 | 400 | 55 | | | | | | 127 | | 127 | | 127 | | 127 |
| IEC 225 | E22 | 450 | 60 | | | | | | | 175.8 | | | | | 175.8 |
| NEMA 143/145TC | N14 | 168 | 22.23 | | 34 | | | 34 | | | | | | | |
| NEMA 182/184TC | N18 | 228 | 25.58 | | 50 | | | 50 | | | | | | | |
| NEMA 213/215TC | N21 | 228 | 34.93 | 116.5 | 116.5 | 116.5 | | | 116.5 | | | 116.5 | | | |
| NEMA 254/256TC | N25 | 228 | 41.28 | 116.5 | 116.5 | 116.5 | | | 116.5 | | | 116.5 | | 116.5 | |
| NEMA 284/286TC | N28 | 277 | 47.63 | 132 | | 132 | | | 132 | 132 | 132 | 132 | | 132 | 132 |
| NEMA 324/326TC | N32 | 328 | 53.98 | 170.8 | | 170.8 | | | 170.8 | | 170.8 | 170.8 | | 170.8 | 170.8 |
| NEMA 364/365TC | N36 | 328 | 60.33 | | | | | | 186.7 | | 186.7 | | 186.7 | | 186.7 |
| NEMA 404/405TC | N40 | 328 | 73.03 | | | | | | | 221.5 | | | | | 221.5 |

Splined rod

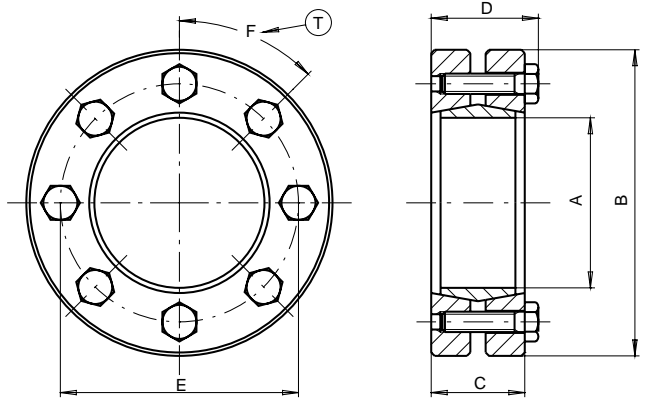


Mat. 18NiCrMo5

Annealed, to be case hardened

| Typ | Tipo | Type | RES | A | L |
|-------|------|------|---|--------------------|-----|
| KW 40 | | | 100/200 | 40 x 36 DIN 5482 | 230 |
| KW 48 | | | Univ. Eingang - Entr. univ. - Univ. input | 48 x 44 DIN 5482 | 230 |
| KW 58 | | | 300/400/500 | 58 x 53 DIN 5482 | 230 |
| KW 70 | | | 800 | 70 x 64 DIN 5482 | 230 |
| KW 80 | | | 1000/1300/1800/2000 | 80 x 74 DIN 5482 | 230 |
| KW 10 | | | 3000/4000 | 100 x 94 DIN 5482 | 230 |
| KW 12 | | | 6000 | W 120 x 3 DIN 5480 | 230 |
| KW 15 | | | 8000 | W 150 x 5 DIN 5480 | 230 |
| KW 16 | | | 10000 | W 160 x 5 DIN 5480 | 300 |
| KW 20 | | | 15000 | W 200 x 5 DIN 5480 | 300 |

Shrink disc

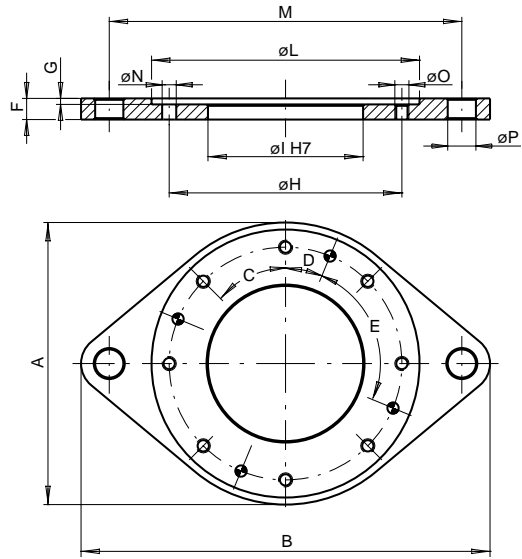


Tab. 9 Max. transmittible torque T_{max} [daNm]

| RES | 100 | 200 | 300 | 400 | 500 | 800 | 1000 | 1300 | 1800 | 2000 | 3000 | 4000 | 6000 | 8000 | 10000 | 15000 |
|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|
| daNm | 138 | 138 | 450 | 650 | 750 | 1080 | 1600 | 2000 | 2000 | 2000 | 4500 | 5700 | 7800 | 10800 | 14700 | 24000 |

| Type | RES | A | B | C | D | E | F (DIN 931-10.9) | T (Nm) Tightening torque |
|------|---------------------|-----|-----|------|------|-----|------------------|--------------------------|
| S50 | 100/200 | 50 | 90 | 27.5 | 31.5 | 70 | M6 - n° 8 | 12 |
| S100 | 300/400/500 | 100 | 170 | 44 | 49.5 | 124 | M8 - n° 12 | 30 |
| S110 | 800 | 110 | 185 | 50 | 57 | 136 | M10 - n° 9 | 59 |
| S125 | 1000/1300/1800/2000 | 125 | 215 | 65 | 73 | 160 | M12 - n° 10 | 100 |
| S175 | 3000/4000 | 175 | 300 | 88 | 98 | 220 | M16 - n° 10 | 250 |
| S185 | 6000 | 185 | 330 | 112 | 122 | 236 | M16 - n°14 | 250 |
| S200 | 8000 | 200 | 350 | 112 | 122 | 246 | M16 - n°15 | 250 |
| S220 | 10000 | 220 | 370 | 134 | 144 | 270 | M16 - n° 20 | 250 |
| S260 | 15000 | 260 | 430 | 160 | 173 | 321 | M20 - n° 18 | 490 |

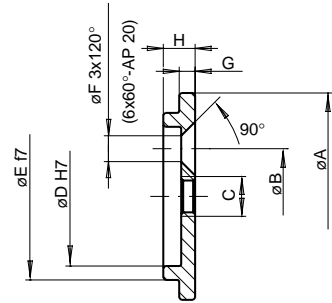
Torque arm



Mat. ST 37

| Type | RES | A | B | C | D | E | F | G | H | I | L | M | N | O | P |
|------|-------------|-----|------|----------|-------|----------|----|---|-----|-----|-----|------|----|-----|----|
| D130 | 100/200 | 200 | 290 | 8 x 45° | - | - | 15 | 2 | 165 | 110 | 190 | 260 | - | M10 | 21 |
| D150 | 300/400/500 | 235 | 350 | 10 x 36° | - | - | 20 | 2 | 195 | 150 | 225 | 300 | - | M12 | 25 |
| D180 | 800F | 295 | 430 | 10 x 36° | - | - | 20 | 2 | 260 | 230 | 285 | 360 | - | M12 | 31 |
| D18P | 800FP | 295 | 430 | 12 x 30° | - | - | 20 | 2 | 250 | 200 | 285 | 360 | - | M14 | 31 |
| D210 | 1000/1300 | 340 | 500 | 10 x 36° | - | - | 25 | 2 | 295 | 230 | 330 | 420 | - | M16 | 37 |
| D280 | 1800/2000 | 370 | 640 | 12 x 30° | 15° | 3 x 120° | 30 | 2 | 314 | 278 | 358 | 560 | 12 | M16 | 37 |
| D400 | 3000/4000 | 440 | 895 | 18 x 20° | 10° | 3 x 120° | 35 | 2 | 390 | 358 | 433 | 800 | 16 | M16 | 43 |
| D450 | 6000 | 460 | 1000 | 18 x 20° | 10° | 3 x 120° | 35 | 2 | 415 | 385 | 450 | 900 | 16 | M16 | 43 |
| D550 | 8000/10000 | 560 | 1215 | 20 x 15° | 0° | 4 x 90° | 40 | 2 | 503 | 460 | 547 | 1100 | 20 | M20 | 57 |
| D750 | 15000 | 720 | 1632 | 24 x 15° | 22.5° | 4 x 90° | 50 | 3 | 635 | 560 | 700 | 1500 | 25 | M30 | 66 |

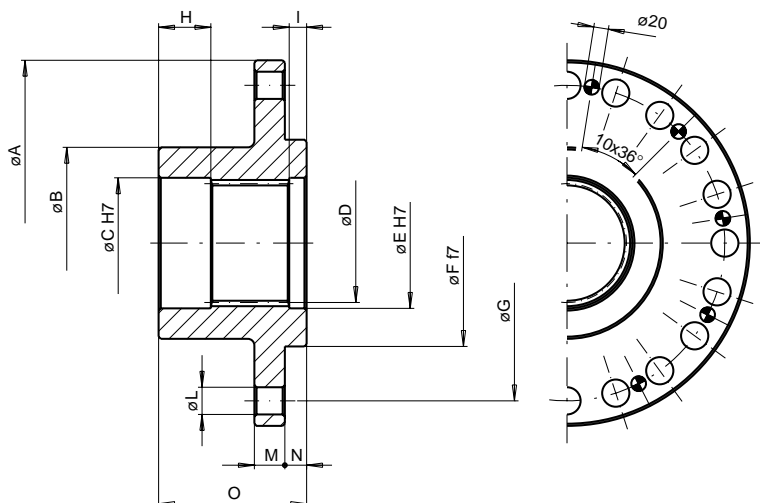
End plate



Mat. C45

| Type | RES | A | B | C | D | E | F | G | H |
|-------|------------------------|-----|-----|-----|-----|-----|------|-----|------|
| AP 40 | 100/200 | 52 | 24 | M8 | 35 | 42 | 6.5 | 4 | 8 |
| AP 58 | 100R/200R | 70 | 32 | M8 | 50 | 60 | 10.5 | 5.5 | 13 |
| AP 58 | 300/400/500 | 70 | 32 | M8 | 50 | 60 | 10.5 | 5.5 | 13 |
| AP 58 | 300R/400R/500R | 70 | 32 | M8 | 50 | 60 | 10.5 | 5.5 | 13 |
| AP 70 | 800R | 79 | 40 | M10 | 62 | 72 | 10.5 | 7.5 | 16 |
| AP 80 | 1000/1300/1800/2000 | 92 | 45 | M10 | 70 | 82 | 12.5 | 8 | 16 |
| AP 10 | 1300R/1800R/2000R/3000 | 114 | 65 | M10 | 85 | 105 | 14.5 | 10 | 20 |
| AP 12 | 4000/6000 | 134 | 70 | M12 | 100 | 122 | 16.5 | 10 | 20 |
| AP 15 | 8000 | 164 | 70 | M12 | 125 | 151 | 16.5 | 10 | 22 |
| AP 17 | 10000 | 184 | 90 | M12 | 145 | 171 | 16.5 | 12 | 23.5 |
| AP 20 | 15000 | 226 | 140 | M16 | 170 | 200 | 16.5 | 25 | 44 |

Wheel flange

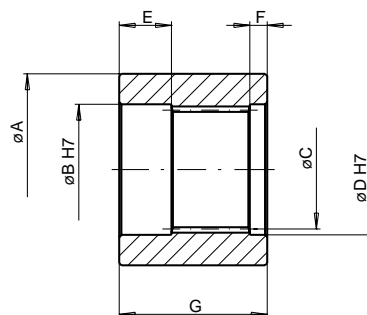


Only WF 20

Mat. 39NiCrMo3/42CrMo4 tempered

| -Type | RES | A | B | C | D | E | F | G | H | I | L | M | N | O |
|-------|------------------------|-----|-----|-----|--------------------|-----|-----|-----|----|----|--------------------|----|----|-----|
| WF 40 | 100/200 | 147 | 60 | 42 | 40 x 36 DIN 5482 | 42 | 60 | 125 | 20 | 6 | ∅10.5 No. 6 x 60' | 10 | 8 | 55 |
| WF 58 | 100R/200R/300/400/500 | 165 | 88 | 60 | 58 x 53 DIN 5482 | 60 | 95 | 145 | 24 | 8 | ∅12.5 No. 12 x 30' | 14 | 10 | 68 |
| WF 5R | 300R/400R/500R | 165 | 88 | 60 | 58 x 53 DIN 5482 | 60 | 95 | 145 | 24 | 8 | ∅12.5 No. 12 x 30' | 14 | 10 | 80 |
| WF 70 | 800R | 208 | 120 | 72 | 70 x 64 DIN 5482 | 72 | 125 | 175 | 30 | 11 | ∅19 No. 12 x 30' | 20 | 14 | 90 |
| WF 80 | 1000/1300/1800/2000 | 208 | 120 | 85 | 80 x 74 DIN 5482 | 82 | 125 | 175 | 30 | 11 | ∅19 No. 12 x 30' | 20 | 14 | 90 |
| WF 10 | 1300R/1800R/2000R/3000 | 254 | 145 | 105 | 100 x 94 DIN 5482 | 105 | 170 | 212 | 33 | 12 | ∅21 No. 12 x 30' | 24 | 20 | 110 |
| WF 12 | 4000/6000 | 309 | 181 | 122 | N 120 x 3 DIN 5480 | 122 | 200 | 260 | 33 | 11 | ∅25 No. 12 x 30' | 31 | 19 | 130 |
| WF 15 | 8000 | 384 | 220 | 151 | N 150 x 5 DIN 5480 | 151 | 220 | 320 | 31 | 13 | ∅32 No. 12 x 30' | 31 | 19 | 150 |
| WF 17 | 10000 | 404 | 240 | 171 | N 170 x 5 DIN 5480 | 171 | 240 | 340 | 38 | 13 | ∅32 No. 16 x 22.5' | 36 | 19 | 170 |
| WF 20 | 15000 | 500 | 300 | 200 | N 200 x 5 DIN 5480 | 200 | 300 | 440 | 52 | 20 | ∅32 No. 20 x 18' | 50 | 40 | 200 |

Splined bush



Mat. ST 52.3 Available in case hardening steel on request

| Type | RES | A | B | C | D | E | F | G |
|-------|------------------------|-----|-----|--------------------|-----|----|----|-----|
| ZN 40 | 100/200 | 60 | 42 | 40 x 36 DIN 5482 | 42 | 20 | 6 | 55 |
| ZN 58 | 100R/200R/300/400/500 | 78 | 60 | 58 x 53 DIN 5482 | 60 | 24 | 8 | 68 |
| ZN 5R | 300R/400R/500R | 78 | 60 | 58 x 53 DIN 5482 | 60 | 24 | 8 | 80 |
| ZN 70 | 800R | 95 | 72 | 70 x 64 DIN 5482 | 72 | 30 | 11 | 90 |
| ZN 80 | 1000/1300/1800/2000 | 108 | 85 | 80 x 74 DIN 5482 | 82 | 30 | 11 | 90 |
| ZN 10 | 1300R/1800R/2000R/3000 | 136 | 105 | 100 x 94 DIN 5482 | 105 | 33 | 12 | 110 |
| ZN 12 | 4000/6000 | 160 | 122 | N 120 x 3 DIN 5480 | 122 | 33 | 11 | 130 |
| ZN 15 | 8000 | 200 | 151 | N 150 x 5 DIN 5480 | 151 | 31 | 13 | 150 |
| ZN 17 | 10000 | 220 | 171 | N 170 x 5 DIN 5480 | 171 | 38 | 13 | 170 |
| ZN 20 | 15000 | 280 | 200 | N 200 x 5 DIN 5480 | 200 | 52 | 20 | 200 |