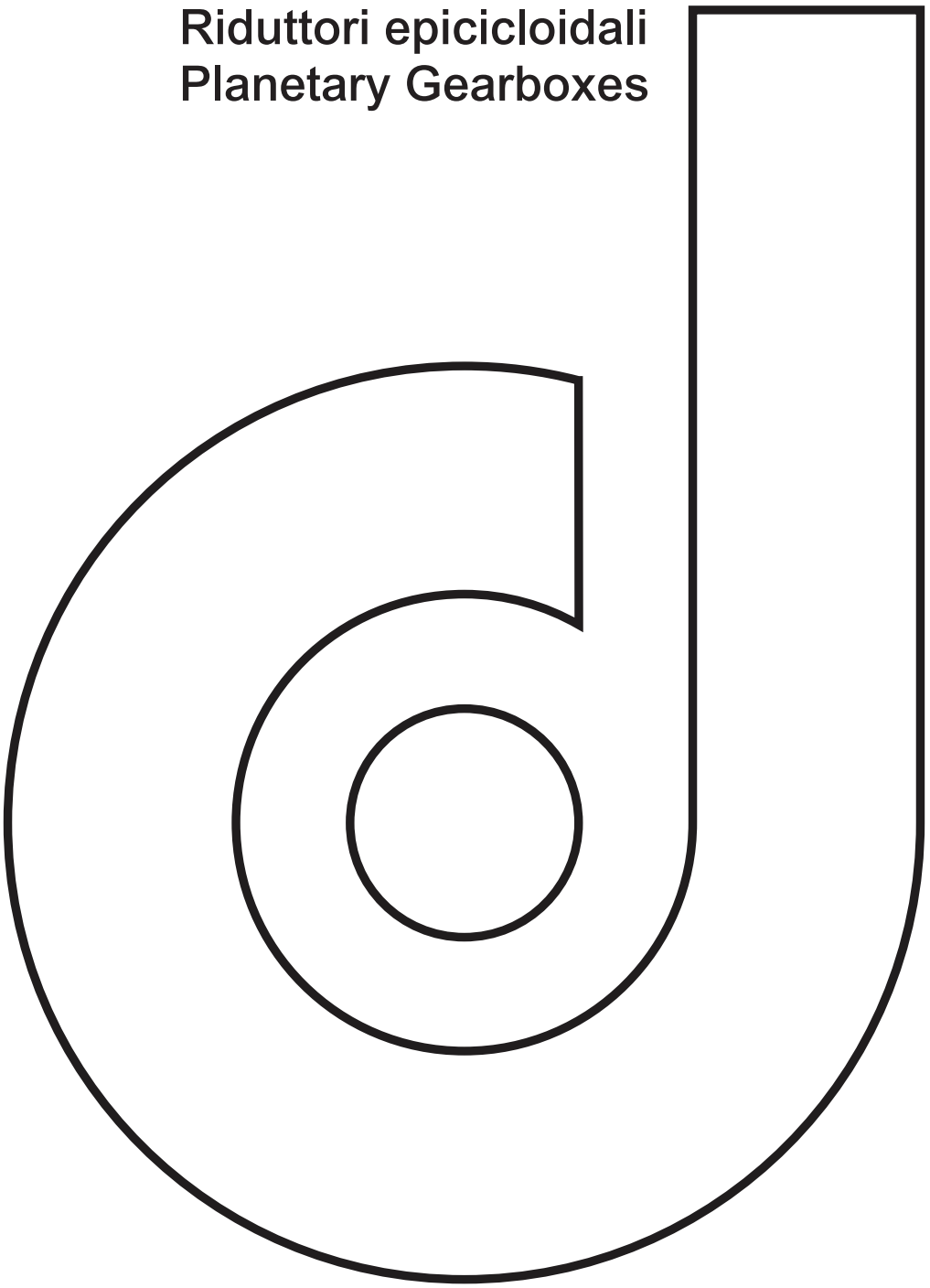
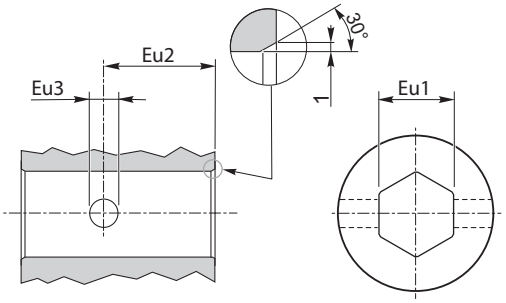
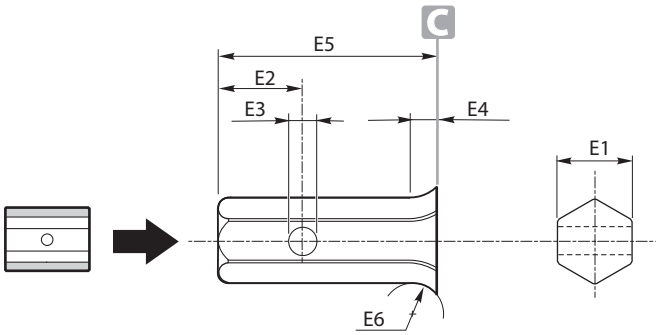
# Riduttori epicicloidali
# Planetary Gearboxes



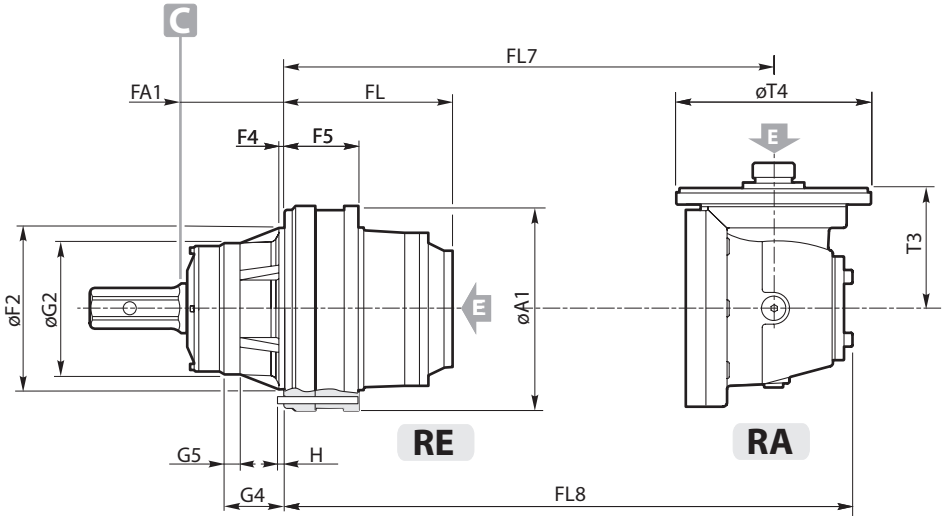
dinamic oil



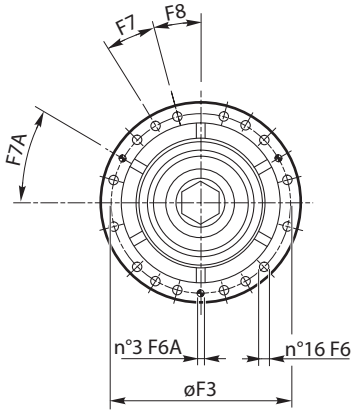



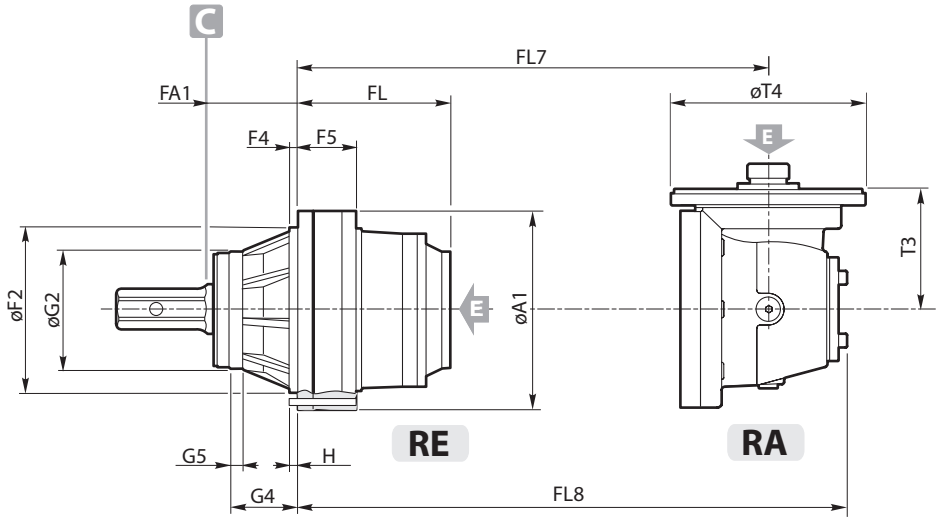

| HE | | RE - RA | | | | |
|---|---|---|---|---|---|---|
| | | 1520 | 2000 | 2000L | 2520 | 3000 |
| | E1 | 70 | 70 | 70 | 100 | 100 |
| | E2 | 65 | 65 | 65 | 170.5 | 170.5 |
| | E3 | Ø 22 | Ø 22 | Ø 22 | Ø 32 | Ø 32 |
| | E4 | 25 | 25 | 25 | 20 | 20 |
| | E5 | 142.5 | 142.5 | 142.5 | 160 | 160 |
| | E6 | r 30 | r 30 | r 30 | r 35 | r 35 |
| | | | | | | |
| | Eu1 | 70 | 70 | 70 | 100 | 100 |
| | Eu2 | 50 | 50 | 50 | 65 | 65 |
| | Eu3 | Ø 22 | Ø 22 | Ø 22 | Ø 32 | Ø 32 |

| | | RE - RA | | | | |
|---|---|---|---|---|---|---|
| | stages | 1520 | 2000 | 2000L | 2520 | 3000 |
| A1 | | 350 | 350 | 350 | 409 | 409 |
| FA1 | | 176.5 | 176.5 | 176.5 | 210 | 210 |
| F2 | | 278 f7 | 278 f7 | 278 f7 | 340 f7 | 340 f7 |
| F3 | | 314 | 314 | 314 | 370 | 370 |
| F4 | | 10 | 10 | 10 | 17 | 17 |
| F5 | | 133 | 133 | 133 | 131 | 131 |
| F6 | | Ø16.5 | Ø16.5 | Ø16.5 | Ø17 | Ø17 |
| | | M.. - 12.9 | | | | |
| | | M16 | M16 | M16 | M16 | M16 |
| F6A | | Ø12 | Ø12 | Ø12 | Ø16 | Ø16 |
| F7 | | 15° | 15° | 15° | 12° | 12° |
| F7A | | 30° | 30° | 30° | 30° | 30° |
| F8 | | 15° | 15° | 15° | 24° | 24° |
| FL | 1 | 107 | 107 | 107 | 98 | 98 |
| | 2 | 200 | 200 | 200 | 209 | 226 |
| | 3 | 264.5 | 258.5 | 264.5 | 276 | 311 |
| | 4 | 307.5 | 311 | 307.5 | 328.5 | 375.5 |
| FL7 | 2 | 313 | 313 | 313 | 292 | 292 |
| | 3 | 322 | 322 | 322 | 351 | 368 |
| | 4 | 345.5 | 380.5 | 345.5 | 398 | 433 |
| FL8 | 2 | 441 | 441 | 441 | 420 | 420 |
| | 3 | 413 | 413 | 413 | 459 | 476 |
| | 4 | 420 | 472 | 420 | 489 | 524 |
| G2 | | 225 f7 | 225 f7 | 225 f7 | 245 f7 | 245 f7 |
| G4 | | 104.5 | 104.5 | 104.5 | 142 | 142 |
| G5 | | 27.5 | 27.5 | 27.5 | 29 | 29 |
| H | | 15 | 15 | 15 | 29 | 29 |
| T3 | 2 | 310 | 310 | 310 | 310 | 310 |
| | 3 | 171 | 171 | 171 | 227 | 227 |
| | 4 | 113.8 | 171 | 113.8 | 171 | 171 |
| T4 | 2 | 293 | 293 | 293 | 293 | 293 |
| | 3 | 183 | 183 | 183 | 242 | 242 |
| | 4 | 184 | 183 | 184 | 183 | 183 |

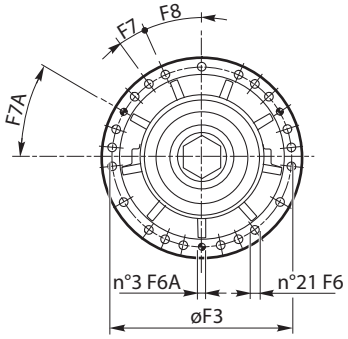



**1520 - 2000**
**2000L**

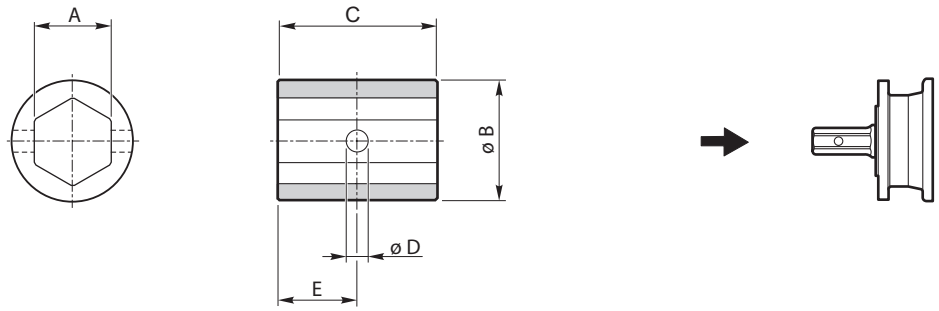



**2520 - 3000**



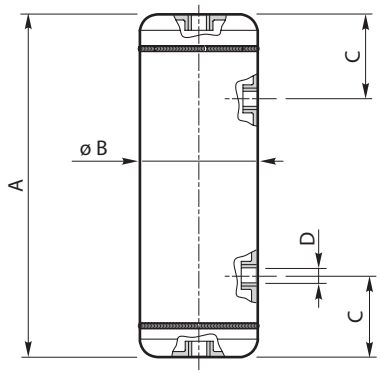
# ES




| | VERSION | A | ø B | C | ø D | E | CODE |
|---|---|---|---|---|---|---|---|
| **RE 110-210** | NE | 50 | 80 | 108 | 18 | 54 | 40001831 |
| **RE 240** | TE | 50 | 80 | 108 | 18 | 54 | 40001831 |
| **RE 310-510-610** | NE | 50 | 80 | 108 | 18 | 54 | 40001831 |
| **RE 310-510-610** | TE-TLE | 70 | 100 | 115 | — | — | 40001813 |
| **RE 810** | TE | 70 | 100 | 115 | — | — | 40001813 |
| **RE 1020-1520-2000** | TE | 70 | 100 | 115 | — | — | 40001813 |

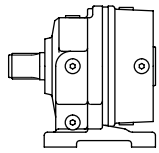
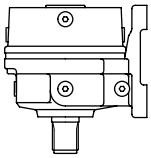
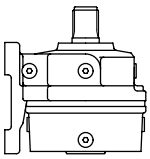
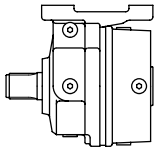
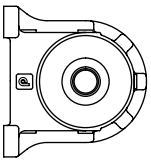
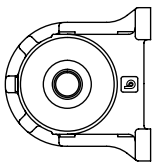
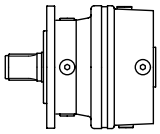
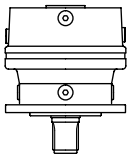
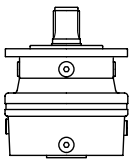
On demand for different size

# VE

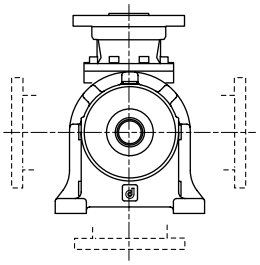



| A | ø B | C | D | Capacity [Liters] | CODE |
|---|---|---|---|---|---|
| 230 | 80 | 55 | 1/4" GAS (4) | 1.0 | 40000712 |
| 330 | 130 | 85 | 1/4" GAS (4) | 3.8 | 40000711 |
| 330 | 160 | 85 | 1/4" GAS (4) | 5.5 | 40000710 |
| 510 | 150 | 85 | 1/4" GAS (4) | 7.7 | 40000704 |
| 690 | 150 | 85 | 1/4" GAS (4) | 10.7 | 40000706 |

On demand for different size

| | | | |
|---|---|---|---|
|  |  |  |  |
| **B3** | **V5** | **V6** | **B8** |
|  |  |  |  |
| **B6** | **B7** | **B5** | **V1** |
|  | | | |
| **V3** | | | |

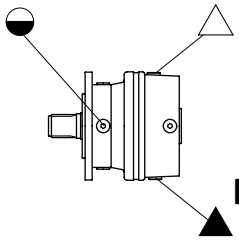
**pos. 0 = STANDARD**

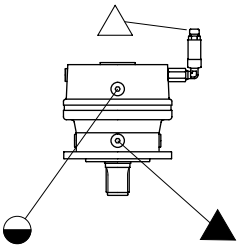


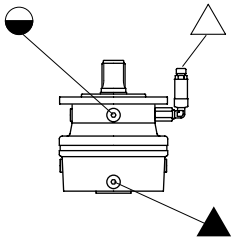
**pos. 1= 90°** **pos. 3= 270°**

**pos. 2 = 180°**

## N

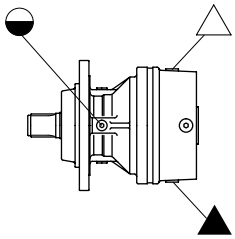

B5

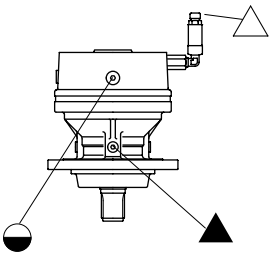

V1

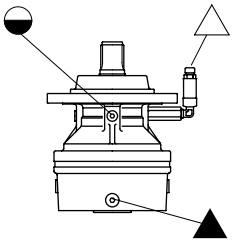

V3

**110÷1520**

## T - TL - TR

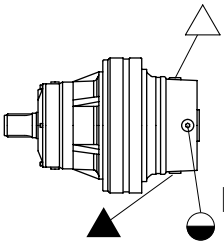

B5

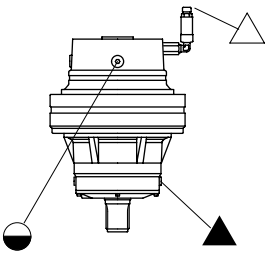

V1

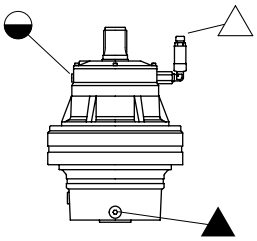

V3

**110÷810**

## H

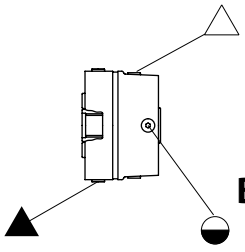

B5

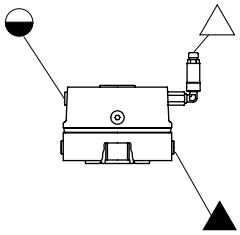

V1

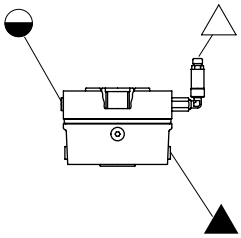

V3

**1520÷130000**

## F

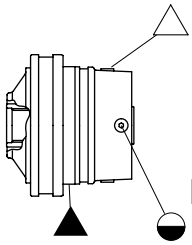

B5


V1


V3

**110÷810**

## F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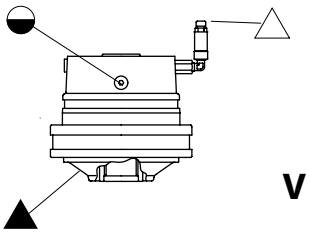
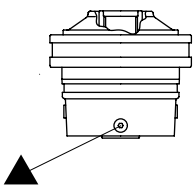
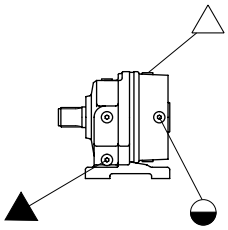

V1


V3

**1020÷1520**

## P



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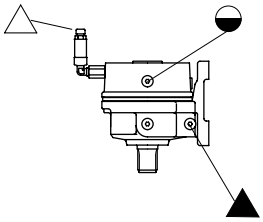

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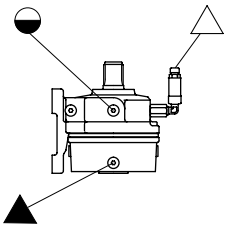
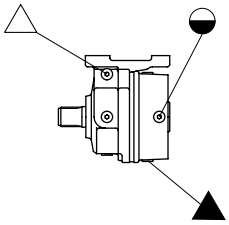
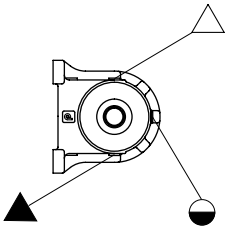


V6



B8



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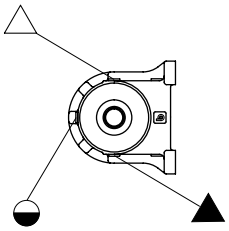
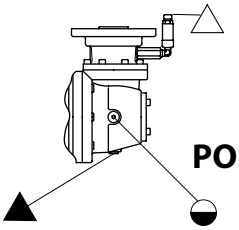


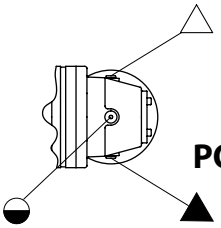
B7

**110÷810**

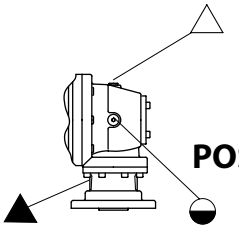
## RAS



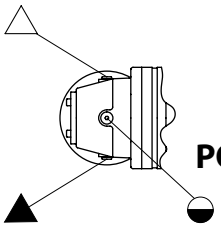
POS. 0



POS. 1



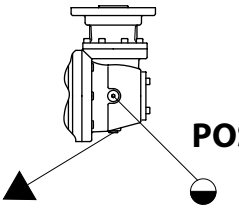
POS. 2



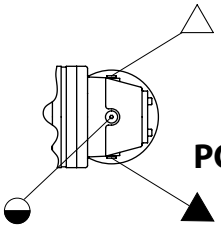
POS. 3

**110÷510**

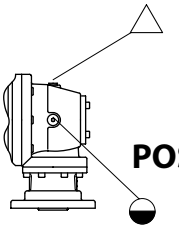
## RAD



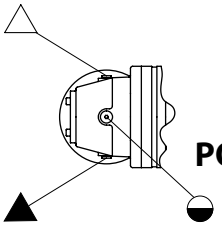
POS. 0



POS. 1



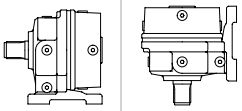
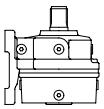
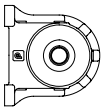
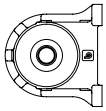
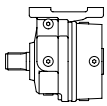
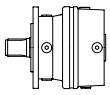
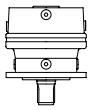
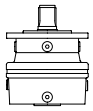
POS. 2

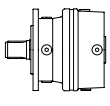
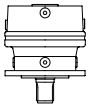
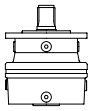


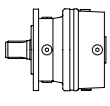
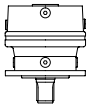
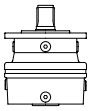
POS. 3

**110÷510**

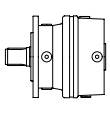
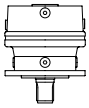
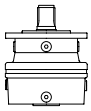
dinamic oil

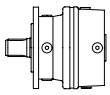
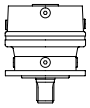
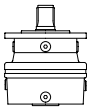
| [Liters] | B3 | V5 | V6 | B6 | B7 | B8 | B5 | V1 | V3 |
|---|---|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |  |  |
| **RE 111** | 0.7 | 1.4 | 1.4 | 0.7 | 1.4 | 1.4 | 0.4 | 0.8 | 0.8 |
| **RE 112** | 0.9 | 1.8 | 1.8 | 0.9 | 1.8 | 1.8 | 0.5 | 1 | 1 |
| **RE 113** | 1.1 | 2.2 | 2.2 | 1.1 | 2.2 | 2.2 | 0.7 | 1.4 | 1.4 |
| **RE 114** | 1.3 | 2.6 | 2.6 | 1.3 | 2.6 | 2.6 | 0.8 | 1.6 | 1.6 |
| **RE 211** | 0.8 | 1.6 | 1.6 | 0.8 | 1.6 | 1.6 | 0.5 | 1 | 1 |
| **RE 212** | 1 | 2 | 2 | 1 | 2 | 2 | 0.6 | 1.2 | 1.2 |
| **RE 213** | 1.2 | 2.4 | 2.4 | 1.2 | 2.4 | 2.4 | 0.7 | 1.4 | 1.4 |
| **RE 214** | 1.4 | 2.8 | 2.8 | 1.4 | 2.8 | 2.8 | 0.9 | 1.8 | 1.8 |
| **RE 241** | 0.8 | 1.6 | 1.6 | 0.8 | 1.6 | 1.6 | 0.5 | 1 | 1 |
| **RE 242** | 1 | 2 | 2 | 1 | 2 | 2 | 0.6 | 1.2 | 1.2 |
| **RE 243** | 1.2 | 2.4 | 2.4 | 1.2 | 2.4 | 2.4 | 0.7 | 1.4 | 1.4 |
| **RE 244** | 1.4 | 2.8 | 2.8 | 1.4 | 2.8 | 2.8 | 0.9 | 1.8 | 1.8 |
| **RE 311** | 1.4 | 2.8 | 2.8 | 1.4 | 2.8 | 2.8 | 1 | 2 | 2 |
| **RE 312** | 1.6 | 3.2 | 3.2 | 1.6 | 3.2 | 3.2 | 1.2 | 2.4 | 2.4 |
| **RE 313** | 1.7 | 3.4 | 3.4 | 1.7 | 3.4 | 3.4 | 1.3 | 2.6 | 2.6 |
| **RE 314** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.4 | 2.8 | 2.8 |
| **RE 511** | 1.5 | 3 | 3 | 1.5 | 3 | 3 | 1.1 | 2.2 | 2.2 |
| **RE 512** | 1.7 | 3.4 | 3.4 | 1.7 | 3.4 | 3.4 | 1.3 | 2.6 | 2.6 |
| **RE 513** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.5 | 3 | 3 |
| **RE 514** | 1.9 | 3.8 | 3.8 | 1.9 | 3.8 | 3.8 | 1.6 | 3.2 | 3.2 |
| **RE 611** | 1.6 | 3.2 | 3.2 | 1.6 | 3.2 | 3.2 | 1.2 | 2.4 | 2.4 |
| **RE 612** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.4 | 2.8 | 2.8 |
| **RE 613** | 1.9 | 3.8 | 3.8 | 1.9 | 3.8 | 3.8 | 1.6 | 3.2 | 3.2 |
| **RE 614** | 20 | 40 | 40 | 20 | 40 | 40 | 1.7 | 3.4 | 3.4 |
| **RE 811** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.5 | 3 | 3 |
| **RE 812** | 2 | 4 | 4 | 2 | 4 | 4 | 1.7 | 3.4 | 3.4 |
| **RE 813** | 2.2 | 4.4 | 4.4 | 2.2 | 4.4 | 4.4 | 1.9 | 3.8 | 3.8 |
| **RE 814** | 2.3 | 4.6 | 4.6 | 2.3 | 4.6 | 4.6 | 2 | 4 | 4 |
| **RE 1021** | 2.4 | 4.8 | 4.8 | 2.4 | 4.8 | 4.8 | 2.1 | 4.2 | 4.2 |
| **RE 1022** | 2.6 | 5.2 | 5.2 | 2.6 | 5.2 | 5.2 | 2.3 | 4.6 | 4.6 |
| **RE 1023** | 2.7 | 5.4 | 5.4 | 2.7 | 5.4 | 5.4 | 2.4 | 4.8 | 4.8 |
| **RE 1024** | 2.9 | 5.8 | 5.8 | 2.9 | 5.8 | 5.8 | 2.6 | 5.2 | 5.2 |

| [Liters] | B5 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **RE 1521** | 2.7 | 5.4 | 5.4 |
| **RE 1522** | 3 | 6 | 6 |
| **RE 1523** | 3.2 | 6.4 | 6.4 |
| **RE 1524** | 3.4 | 6.8 | 6.8 |
| **RE 2001** | 2.7 | 5.4 | 5.4 |
| **RE 2002** | 3 | 6 | 6 |
| **RE 2003** | 3.3 | 6.6 | 6.6 |
| **RE 2004** | 3.4 | 6.8 | 6.8 |
| **RE 2002L** | 3 | 6 | 6 |
| **RE 2003L** | 3.1 | 6.2 | 6.2 |
| **RE 2004L** | 3.2 | 6.4 | 6.4 |
| **RE 2521** | 3.9 | 7.7 | 7.7 |
| **RE 2522** | 4.5 | 9 | 9 |
| **RE 2523** | 4.7 | 9.4 | 9.4 |
| **RE 2524** | 5 | 9.9 | 9.9 |
| **RE 3001** | 3.8 | 7.6 | 7.6 |
| **RE 3002** | 4.6 | 9.1 | 9.1 |
| **RE 3003** | 4.8 | 9.5 | 9.5 |
| **RE 3004** | 5 | 10 | 10 |
| **RE 3511** | 4.9 | 9.8 | 9.8 |
| **RE 3512** | 5.7 | 11.4 | 11.4 |
| **RE 3513** | 6 | 12 | 12 |
| **RE 3514** | 6.2 | 12.4 | 12.4 |
| **RE 4801** | 4.7 | 9.4 | 9.4 |
| **RE 4802** | 6.8 | 13.6 | 13.6 |
| **RE 4803** | 7.2 | 14.4 | 14.4 |
| **RE 4804** | 7.4 | 14.8 | 14.8 |
| **RE 6001** | 7.5 | 15 | 15 |
| **RE 6002** | 8.5 | 17 | 17 |
| **RE 6003** | 9 | 18 | 18 |
| **RE 6004** | 9.3 | 18.6 | 18.6 |
| **RE 6002L** | 8.5 | 17 | 17 |
| **RE 6003L** | 9 | 18 | 18 |

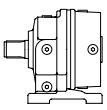
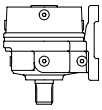
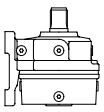
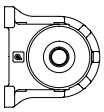
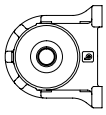
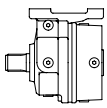
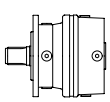
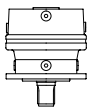
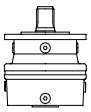
| [Liters] | B5 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **RE 6004L** | 9.2 | 18.4 | 18.4 |
| **RE 8001** | 8.3 | 16.6 | 16.6 |
| **RE 8002** | 10.2 | 20.4 | 20.4 |
| **RE 8003** | 11 | 22 | 22 |
| **RE 8004** | 11.5 | 23 | 23 |
| **RE 8005** | 11.7 | 23.4 | 23.4 |
| **RE 8002L** | 10.2 | 20.4 | 20.4 |
| **RE 8003L** | 10.8 | 21.6 | 21.6 |
| **RE 8004L** | 11.4 | 22.8 | 22.8 |
| **RE 8005L** | 11.6 | 23.2 | 23.2 |
| **GB 12011** | 13.5 | 27 | 27 |
| **GB 12012** | 15.5 | 31 | 31 |
| **GB 12013** | 16.5 | 33 | 33 |
| **GB 12014** | 16.8 | 33.6 | 33.6 |
| **GB 12015** | 17 | 34 | 34 |
| **GB 12012L** | 15.5 | 31 | 31 |
| **GB 12013L** | 16.3 | 32.6 | 32.6 |
| **GB 12014L** | 16.7 | 33.4 | 33.4 |
| **GB 12015L** | 17 | 34 | 34 |
| **GB 16001** | 14.5 | 29 | 29 |
| **GB 16002** | 18 | 36 | 36 |
| **GB 16003** | 19.2 | 38.4 | 38.4 |
| **GB 16004** | 19.6 | 39.2 | 39.2 |
| **GB 16005** | 19.8 | 39.6 | 39.6 |
| **GB 16002L** | 17 | 34 | 34 |
| **GB 16003L** | 18 | 36 | 36 |
| **GB 16004L** | 18.5 | 37 | 37 |
| **GB 16005L** | 18.7 | 37.4 | 37.4 |
| **GB 21001** | 20 | 40 | 40 |
| **GB 21002** | 23.5 | 47 | 47 |
| **GB 21003** | 24.5 | 49 | 49 |
| **GB 21004** | 25 | 50 | 50 |
| **GB 21005** | 25.5 | 51 | 51 |

dinamic oil

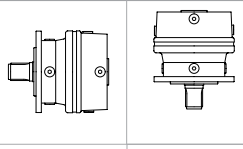
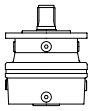
| [Liters] | B5 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **GB 26001** | 20 | 40 | 40 |
| **GB 26002** | 25.5 | 51 | 51 |
| **GB 26003** | 27.5 | 55 | 55 |
| **GB 26004** | 28.5 | 57 | 57 |
| **GB 26005** | 29 | 58 | 58 |
| **GB 31001** | 38 | 76 | 76 |
| **GB 31002** | 46.5 | 93 | 93 |
| **GB 31003** | 48.5 | 97 | 97 |
| **GB 31004** | 49.5 | 99 | 99 |
| **GB 31005** | 50 | 100 | 100 |
| **GB 40001** | 41 | 82 | 82 |
| **GB 40002** | 49 | 98 | 98 |
| **GB 40003** | 51 | 102 | 102 |
| **GB 40004** | 52 | 104 | 104 |
| **GB 40005** | 52 | 104 | 104 |
| **GB 45001** | 41 | 82 | 82 |
| **GB 45002** | 50 | 100 | 100 |
| **GB 45003** | 53.5 | 107 | 107 |
| **GB 45004** | 55 | 110 | 110 |
| **GB 45005** | 55.5 | 111 | 111 |
| **GB 53001** | 70 | 140 | 140 |
| **GB 53002** | 80 | 160 | 160 |
| **GB 53003** | 85 | 170 | 170 |
| **GB 53004** | 86.5 | 173 | 173 |
| **GB 53005** | 87 | 174 | 174 |
| **GB 61001** | 70 | 140 | 140 |
| **GB 61002** | 80 | 160 | 160 |
| **GB 61003** | 85 | 170 | 170 |
| **GB 61004** | 86.5 | 173 | 173 |
| **GB 61005** | 87 | 174 | 174 |
| **GB 85001** | 75 | 150 | 150 |
| **GB 85002** | 87.5 | 175 | 175 |
| **GB 85003** | 93 | 186 | 186 |

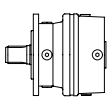
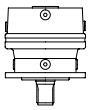
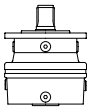
| [Liters] | B5 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **GB 85004** | 95 | 190 | 190 |
| **GB 85005** | 95.5 | 191 | 191 |
| **GB 110001** | 145 | 290 | 290 |
| **GB 110002** | 170 | 340 | 340 |
| **GB 110003** | 180 | 360 | 360 |
| **GB 110004** | 183 | 366 | 366 |
| **GB 110005** | 185 | 370 | 370 |
| **GB 130001** | 144 | 288 | 288 |
| **GB 130002** | 172 | 344 | 344 |
| **GB 130003** | 181 | 362 | 362 |
| **GB 130004** | 185 | 370 | 370 |
| **GB 130005** | 186 | 372 | 372 |
| **GB 150001** | 143 | 286 | 286 |
| **GB 150002** | 172 | 344 | 344 |
| **GB 150003** | 185 | 370 | 370 |
| **GB 150004** | 187 | 374 | 374 |
| **GB 150005** | 188 | 376 | 376 |
| **GB 205001** | 255 | 510 | 510 |
| **GB 205002** | 300 | 600 | 600 |
| **GB 205003** | 318 | 636 | 636 |
| **GB 205004** | 326 | 652 | 652 |
| **GB 205005** | 329 | 658 | 658 |
| **GB 235001** | 255 | 510 | 510 |
| **GB 235002** | 300 | 600 | 600 |
| **GB 235003** | 335 | 670 | 670 |
| **GB 235004** | 345 | 690 | 690 |
| **GB 235005** | 247 | 494 | 494 |

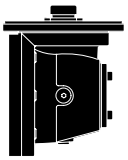
[Liters]

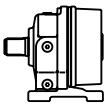
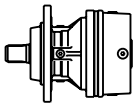
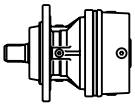
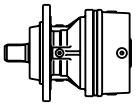
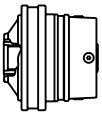
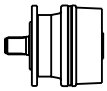
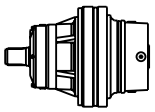
| | B3-1 | V5 | V6 | B6-1 | B7 | B8 | B5-1 | V1 | V3 |
|---|---|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |  |  |
| **RA 112** | 1.5 | 3 | 3 | 1.5 | 3 | 3 | 1.2 | 2.4 | 2.4 |
| **RA 113** | 1.7 | 3.4 | 3.4 | 1.7 | 3.4 | 3.4 | 1.3 | 2.6 | 2.6 |
| **RA 114** | 1.9 | 3.8 | 3.8 | 1.9 | 3.8 | 3.8 | 1.5 | 3 | 3 |
| **RA 212** | 1.6 | 3.2 | 3.2 | 1.6 | 3.2 | 3.2 | 1.3 | 2.6 | 2.6 |
| **RA 213** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.4 | 2.8 | 2.8 |
| **RA 214** | 2 | 4 | 4 | 2 | 4 | 4 | 1.5 | 3 | 3 |
| **RA 242** | 1.6 | 3.2 | 3.2 | 1.6 | 3.2 | 3.2 | 1.3 | 2.6 | 2.6 |
| **RA 243** | 1.8 | 3.6 | 3.6 | 1.8 | 3.6 | 3.6 | 1.4 | 2.8 | 2.8 |
| **RA 244** | 2 | 4 | 4 | 2 | 4 | 4 | 1.5 | 3 | 3 |
| **RA 312** | 2.5 | 5 | 5 | 2.5 | 5 | 5 | 2.1 | 4.2 | 4.2 |
| **RA 313** | 2.4 | 4.8 | 4.8 | 2.4 | 4.8 | 4.8 | 2 | 4 | 4 |
| **RA 314** | 2.5 | 5 | 5 | 2.5 | 5 | 5 | 2.1 | 4.2 | 4.2 |
| **RA 512** | 2.6 | 5.2 | 5.2 | 2.6 | 5.2 | 5.2 | 2.2 | 4.4 | 4.4 |
| **RA 513** | 2.5 | 5 | 5 | 2.5 | 5 | 5 | 2.1 | 4.2 | 4.2 |
| **RA 514** | 2.6 | 5.2 | 5.2 | 2.6 | 5.2 | 5.2 | 2.3 | 4.6 | 4.6 |
| **RA 612** | 2.7 | 5.4 | 5.4 | 2.7 | 5.4 | 5.4 | 2.3 | 4.6 | 4.6 |
| **RA 613** | 2.9 | 5.8 | 5.8 | 2.9 | 5.8 | 5.8 | 2.5 | 5 | 5 |
| **RA 614** | 2.7 | 5.4 | 5.4 | 2.7 | 5.4 | 5.4 | 2.4 | 4.8 | 4.8 |
| **RA 812** | 3.8 | 7.6 | 7.6 | 3.8 | 7.6 | 7.6 | 3.5 | 7 | 7 |
| **RA 813** | 3.1 | 6.2 | 6.2 | 3.1 | 6.2 | 6.2 | 2.8 | 5.6 | 5.6 |
| **RA 814** | 3 | 6 | 6 | 3 | 6 | 6 | 2.7 | 5.4 | 5.4 |
| **RA 1022** | 4.4 | 8.8 | 8.8 | 4.4 | 8.8 | 8.8 | 4.1 | 8.2 | 8.2 |
| **RA 1023** | 3.7 | 7.4 | 7.4 | 3.7 | 7.4 | 7.4 | 3.4 | 6.8 | 6.8 |
| **RA 1024** | 3.5 | 7 | 7 | 3.5 | 7 | 7 | 3.2 | 6.4 | 6.4 |

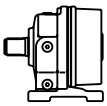
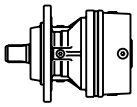
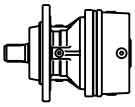
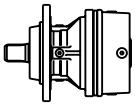
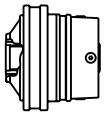
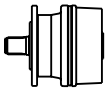
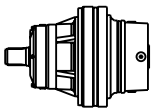
dinamic oil

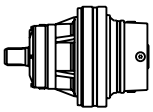
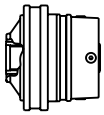
| [Liters] | B5-1 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **RA 1522** | 5.7 | 11.4 | 11.4 |
| **RA 1523** | 4.1 | 8.2 | 8.2 |
| **RA 1524** | 4 | 8 | 8 |
| **RA 2002** | 5.7 | 11.4 | 11.4 |
| **RA 2003** | 4.1 | 8.2 | 8.2 |
| **RA 2004** | 4.1 | 8.2 | 8.2 |
| **RA 2003L** | 4.1 | 8.2 | 8.2 |
| **RA 2004L** | 3.9 | 7.8 | 7.8 |
| **RA 2522** | 10.7 | 21.4 | 21.4 |
| **RA 2523** | 11 | 22 | 22 |
| **RA 2524** | 10.5 | 21 | 21 |
| **RA 3002** | 10.6 | 21.2 | 21.2 |
| **RA 3003** | 11.1 | 22.2 | 22.2 |
| **RA 3004** | 10.6 | 21.2 | 21.2 |
| **RA 3512** | 14.9 | 29.8 | 29.8 |
| **RA 3513** | 7.7 | 15.4 | 15.4 |
| **RA 3514** | 7.1 | 14.2 | 14.2 |
| **RA 4802** | 14.7 | 29.4 | 29.4 |
| **RA 4803** | 9.8 | 19.6 | 19.6 |
| **RA 4804** | 8.3 | 16.6 | 16.6 |
| **RA 6002** | 17.5 | 35 | 35 |
| **RA 6003** | 11.5 | 23 | 23 |
| **RA 6004** | 10.1 | 20.2 | 20.2 |
| **RA 6003L** | 11.5 | 23 | 23 |
| **RA 6004L** | 10.1 | 20.2 | 20.2 |
| **RA 8002** | 18.3 | 36.6 | 36.6 |
| **RA 8003** | 13.2 | 26.4 | 26.4 |
| **RA 8004** | 13 | 26 | 26 |
| **RA 8003L** | 13.2 | 26.4 | 26.4 |
| **RA 8004L** | 12.8 | 25.6 | 25.6 |
| **GBA 12013** | 18.5 | 37 | 37 |
| **GBA 12014** | 18.5 | 37 | 37 |
| **GBA 12015** | 17.9 | 35.8 | 35.8 |
| **GBA 12013L** | 18.5 | 37 | 37 |
| **GBA 12014L** | 18.3 | 36.6 | 36.6 |
| **GBA 12015L** | 18 | 36 | 36 |
| **GBA 16003** | 28 | 56 | 56 |
| **GBA 16004** | 22.2 | 44.4 | 44.4 |
| **GBA 16005** | 20.7 | 41.4 | 41.4 |

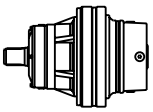
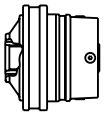
| [Liters] | B5-1 | V1 | V3 |
|---|---|---|---|
| |  |  |  |
| **GBA 16003L** | 27 | 54 | 54 |
| **GBA 16004L** | 21 | 42 | 42 |
| **GBA 16005L** | 19.6 | 39.2 | 39.2 |
| **GBA 21003** | 33.5 | 67 | 67 |
| **GBA 21004** | 27.5 | 55 | 55 |
| **GBA 21005** | 26.1 | 52.2 | 52.2 |
| **GBA 26003** | 35.5 | 71 | 71 |
| **GBA 26004** | 30.5 | 61 | 61 |
| **GBA 26005** | 30.5 | 61 | 61 |
| **GBA 31004** | 51.5 | 103 | 103 |
| **GBA 31005** | 51.5 | 103 | 103 |
| **GBA 40004** | 54 | 108 | 108 |
| **GBA 40005** | 54 | 108 | 108 |
| **GBA 45004** | 63.5 | 127 | 127 |
| **GBA 45005** | 58.5 | 117 | 117 |
| **GBA 53004** | 96.5 | 193 | 193 |
| **GBA 53005** | 90 | 180 | 180 |
| **GBA 61004** | 95 | 190 | 190 |
| **GBA 61005** | 89.5 | 179 | 179 |
| **GBA 61006** | 88 | 176 | 176 |
| **GBA 85004** | 103 | 206 | 206 |
| **GBA 85005** | 98 | 196 | 196 |
| **GBA 85006** | 97 | 194 | 194 |
| **GBA 110005** | 186 | 372 | 372 |
| **GBA 110006** | 187 | 374 | 374 |
| **GBA 130005** | 380 | 760 | 388 |
| **GBA 130006** | 189 | 378 | 378 |

| CC | | |
|---|---|---|
| [Liters] |  | |
| **CC30** | 1.6 | **Complete filling** |
| **CC120** | 2.2 | |
| **CC350** | 4 | |
| **CC600** | 6 | |
| **CC1000** | 16 | |

| kg | P | T | TL | TR | F | N | H |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| **RE 111** | 23 | 20 | — | 20 | 14 | 17 | — |
| **RE 112** | 29.5 | 26.5 | — | 26.5 | 21 | 24 | — |
| **RE 113** | 36.5 | 33.5 | — | 33.5 | 27.5 | 30.5 | — |
| **RE 114** | 43 | 40 | — | 40 | 34 | 37 | — |
| **RE 211** | 25 | 22 | — | 22 | 16 | 19 | — |
| **RE 212** | 32 | 29 | — | 29 | 23 | 26 | — |
| **RE 213** | 38 | 35 | — | 35 | 30 | 32 | — |
| **RE 214** | 45 | 42 | — | 42 | 37 | 39 | — |
| **RE 241** | 25 | — | — | 22 | — | — | — |
| **RE 242** | 32 | — | — | 29 | — | — | — |
| **RE 243** | 38 | — | — | 35 | — | — | — |
| **RE 244** | 45 | — | — | 42 | — | — | — |
| **RE 311** | 52 | 47 | 47 | — | 24 | 35 | — |
| **RE 312** | 59 | 54 | 54 | — | 31 | 42 | — |
| **RE 313** | 66 | 61 | 61 | — | 38 | 49 | — |
| **RE 314** | 72 | 67 | 66 | — | 45 | 56 | — |
| **RE 511** | 57 | 52 | 52 | — | 29 | 40 | — |
| **RE 512** | 66 | 61 | 61 | — | 38 | 49 | — |
| **RE 513** | 73 | 68 | 68 | — | 45 | 56 | — |
| **RE 514** | 80 | 75 | 75 | — | 52 | 63 | — |
| **RE 611** | 58 | 53 | 53 | — | 30 | 41 | — |
| **RE 612** | 72 | 67 | 67 | — | 44 | 55 | — |
| **RE 613** | 79 | 74 | 74 | — | 51 | 62 | — |
| **RE 614** | 86 | 81 | 81 | — | 58 | 69 | — |
| **RE 811** | 80 | 70 | — | — | — | 67 | — |
| **RE 812** | 94 | 84 | — | — | — | 80 | — |
| **RE 813** | 100 | 90 | — | — | — | 87 | — |
| **RE 814** | 107 | 97 | — | — | — | 94 | — |
| **RE 1021** | 100 | 90 | — | — | 60 | — | — |
| **RE 1022** | 117 | 107 | — | — | 77 | — | — |

| kg | P | T | TL | TR | F | N | H |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| **RE 1023** | 126 | 116 | — | — | 86 | — | — |
| **RE 1024** | 133 | 123 | — | — | 93 | — | — |
| **RE 1521** | — | 123 | — | — | 84 | — | 130 |
| **RE 1522** | — | 141 | — | — | 102 | — | 148 |
| **RE 1523** | — | 149 | — | — | 110 | — | 156 |
| **RE 1524** | — | 156 | — | — | 117 | — | 163 |
| **RE 2001** | — | 124 | — | — | 85 | — | 131 |
| **RE 2002** | — | 142 | — | — | 104 | — | 150 |
| **RE 2003** | — | 156 | — | — | 118 | — | 163 |
| **RE 2004** | — | 163 | — | — | 125 | — | 170 |
| **RE 2002L** | — | 137 | — | — | 99 | — | 145 |
| **RE 2003L** | — | 149 | — | — | 111 | — | 156 |
| **RE 2004L** | — | 153 | — | — | 115 | — | 160 |
| **RE 2521** | — | — | — | — | 151 | — | 185 |
| **RE 2522** | — | — | — | — | 180 | — | 214 |
| **RE 2523** | — | — | — | — | 194 | — | 228 |
| **RE 2524** | — | — | — | — | 201 | — | 235 |
| **RE 3001** | — | — | — | — | 152 | — | 186 |
| **RE 3002** | — | — | — | — | 199 | — | 233 |
| **RE 3003** | — | — | — | — | 207 | — | 241 |
| **RE 3004** | — | — | — | — | 216 | — | 250 |
| **RE 3511** | — | — | — | — | 225 | — | 239 |
| **RE 3512** | — | — | — | — | 260 | — | 274 |
| **RE 3513** | — | — | — | — | 278 | — | 292 |
| **RE 3514** | — | — | — | — | 287 | — | 301 |
| **RE 4801** | — | — | — | — | 226 | — | 240 |
| **RE 4802** | — | — | — | — | 311 | — | 325 |
| **RE 4803** | — | — | — | — | 330 | — | 344 |
| **RE 4804** | — | — | — | — | 339 | — | 353 |

| kg | H  | F  |
|---|---|---|
| **RE 6002L** | 365 | 340 |
| **RE 6003L** | 375 | 350 |
| **RE 6004L** | 382 | 357 |
| **RE 6001** | 315 | 290 |
| **RE 6002** | 370 | 345 |
| **RE 6003** | 390 | 365 |
| **RE 6004** | 395 | 370 |
| **RE 8001** | 410 | 380 |
| **RE 8002** | 500 | 470 |
| **RE 8003** | 540 | 510 |
| **RE 8004** | 555 | 525 |
| **RE 8005** | 560 | 530 |
| **RE 8002L** | 485 | 455 |
| **RE 8003L** | 520 | 490 |
| **RE 8004L** | 530 | 500 |
| **RE 8005L** | 535 | 505 |
| **GB 12011** | 650 | 615 |
| **GB 12012** | 750 | 715 |
| **GB 12013** | 785 | 750 |
| **GB 12014** | 800 | 765 |
| **GB 12015** | 810 | 775 |
| **GB 12012L** | 700 | 665 |
| **GB 12013L** | 745 | 710 |
| **GB 12014L** | 750 | 715 |
| **GB 12015L** | 757 | 722 |
| **GB 16001** | 690 | 655 |
| **GB 16002** | 860 | 825 |
| **GB 16003** | 915 | 880 |
| **GB 16004** | 935 | 900 |
| **GB 16005** | 940 | 905 |
| **GB 16002L** | 860 | 825 |
| **GB 16003L** | 865 | 830 |
| **GB 16004L** | 885 | 850 |
| **GB 16005L** | 890 | 855 |
| **GB 21001** | 930 | 880 |
| **GB 21002** | 1115 | 1065 |
| **GB 21003** | 1165 | 1115 |
| **GB 21004** | 1190 | 1140 |
| **GB 21005** | 1205 | 1155 |
| **GB 26001** | 980 | 920 |
| **GB 26002** | 1230 | 1170 |
| **GB 26003** | 1330 | 1270 |
| **GB 26004** | 1360 | 1300 |
| **GB 26005** | 1380 | 1320 |
| **GB 31001** | 1900 | 1750 |
| **GB 31002** | 2280 | 2130 |
| **GB 31003** | 2375 | 2225 |
| **GB 31004** | 2410 | 2260 |
| **GB 31005** | 2425 | 2275 |
| **GB 40001** | 2030 | 1880 |

| kg | H  | F  |
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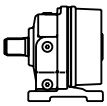
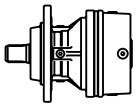
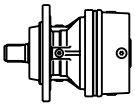
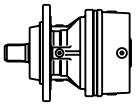
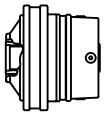
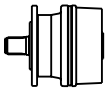
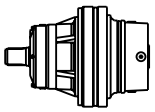
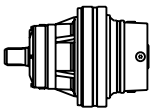
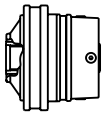
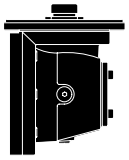
| **GB 40002** | 2400 | 2250 |
| **GB 40003** | 2500 | 2350 |
| **GB 40004** | 2530 | 2380 |
| **GB 40005** | 2540 | 2390 |
| **GB 45001** | 2030 | 1880 |
| **GB 45002** | 2435 | 2285 |
| **GB 45003** | 2610 | 2460 |
| **GB 45004** | 2665 | 2515 |
| **GB 45005** | 2682 | 2532 |
| **GB 53001** | 3550 | 3200 |
| **GB 53002** | 4060 | 3710 |
| **GB 53003** | 4250 | 3900 |
| **GB 53004** | 4350 | 4000 |
| **GB 53005** | 4370 | 4020 |
| **GB 61001** | 3550 | 3200 |
| **GB 61002** | 4060 | 3710 |
| **GB 61003** | 4250 | 3900 |
| **GB 61004** | 4350 | 4000 |
| **GB 61005** | 4370 | 4020 |
| **GB 85001** | 3850 | 3450 |
| **GB 85002** | 4410 | 4010 |
| **GB 85003** | 4650 | 4250 |
| **GB 85004** | 4750 | 4350 |
| **GB 85005** | 4785 | 4385 |
| **GB 110001** | 7520 | 6620 |
| **GB 110002** | 8780 | 7880 |
| **GB 110003** | 9155 | 8255 |
| **GB 110004** | 9250 | 8350 |
| **GB 110005** | 9285 | 8385 |
| **GB 130001** | 7535 | 6635 |
| **GB 130002** | 8800 | 7900 |
| **GB 130003** | 9210 | 8310 |
| **GB 130004** | 9380 | 8480 |
| **GB 130005** | 9430 | 8530 |
| **GB 150001** | 7550 | 6650 |
| **GB 150002** | 8795 | 7895 |
| **GB 150003** | 9280 | 8380 |
| **GB 150004** | 9460 | 8560 |
| **GB 150005** | 9500 | 8600 |
| **GB 205001** | 12240 | 11790 |
| **GB 205002** | 14330 | 13880 |
| **GB 205003** | 15040 | 14590 |
| **GB 205004** | 15410 | 14960 |
| **GB 205005** | 15500 | 15050 |
| **GB 235001** | 12250 | 11800 |
| **GB 235002** | 14580 | 14130 |
| **GB 235003** | 15830 | 15380 |
| **GB 235004** | 16200 | 15750 |
| **GB 235005** | 16300 | 15850 |

| kg | P | T | TL | TR | F | N | H |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| **RA 112** | 43 | 40 | — | 40 | 34 | 37 | — |
| **RA 113** | 49.5 | 46.5 | — | 46.5 | 41 | 44 | — |
| **RA 114** | 56.5 | 53.5 | — | 53.5 | 47.5 | 50.5 | — |
| **RA 212** | 45 | 42 | — | 42 | 36 | 39 | — |
| **RA 213** | 52 | 49 | — | 49 | 43 | 46 | — |
| **RA 214** | 58 | 55 | — | 55 | 50 | 52 | — |
| **RA 242** | 45 | — | — | 42 | — | — | — |
| **RA 243** | 52 | — | — | 49 | — | — | — |
| **RA 244** | 58 | — | — | 55 | — | — | — |
| **RA 312** | 102 | 97 | 97 | — | 74 | 85 | — |
| **RA 313** | | 74 | 74 | — | 51 | 62 | — |
| **RA 314** | 86 | 81 | 81 | — | 58 | 69 | — |
| **RA 512** | 107 | 102 | 102 | — | 79 | 90 | — |
| **RA 513** | 86 | 81 | 81 | — | 58 | 69 | — |
| **RA 514** | 93 | 88 | 88 | — | 65 | 76 | — |
| **RA 612** | 108 | 103 | 103 | — | 80 | 91 | — |
| **RA 613** | 122 | 117 | 117 | — | 94 | 105 | — |
| **RA 614** | 99 | 94 | 94 | — | 71 | 82 | — |
| **RA 812** | 170 | 160 | — | — | — | 157 | — |
| **RA 813** | 144 | 134 | — | — | — | 130 | — |
| **RA 814** | 120 | 110 | — | — | — | 107 | — |
| **RA 1022** | 190 | 180 | — | — | 150 | — | — |
| **RA 1023** | 167 | 157 | — | — | 127 | — | — |
| **RA 1024** | 146 | 136 | — | — | 106 | — | — |
| **RA 1522** | — | 258 | — | — | 219 | — | 265 |
| **RA 1523** | — | 191 | — | — | 152 | — | 198 |
| **RA 1524** | — | 169 | — | — | 130 | — | 176 |
| **RA 2002** | — | 259 | — | — | 220 | — | 266 |
| **RA 2003** | — | 192 | — | — | 154 | — | 200 |
| **RA 2004** | — | 176 | — | — | 138 | — | 183 |
| **RA 2003L** | — | 187 | — | — | 149 | — | 195 |
| **RA 2004L** | — | 169 | — | — | 131 | — | 176 |
| **RA 2522** | — | — | — | — | 286 | — | 320 |
| **RA 2523** | — | — | — | — | 270 | — | 304 |
| **RA 2524** | — | — | — | — | 214 | — | 248 |
| **RA 3002** | — | — | — | — | 287 | — | 321 |
| **RA 3003** | — | — | — | — | 289 | — | 323 |
| **RA 3004** | — | — | — | — | 257 | — | 291 |
| **RA 3512** | — | — | — | — | 575 | — | 589 |
| **RA 3513** | — | — | — | — | 350 | — | 364 |
| **RA 3514** | — | — | — | — | 398 | — | 412 |
| **RA 4802** | — | — | — | — | 576 | — | 590 |
| **RA 4803** | — | — | — | — | 446 | — | 460 |
| **RA 4804** | — | — | — | — | 380 | — | 394 |

| | H | F |
|---|---|---|
| kg |  |  |
| **RA 6002** | 665 | 640 |
| **RA 6003** | 505 | 480 |
| **RA 6004** | 440 | 415 |
| **RA 6003L** | 500 | 475 |
| **RA 6004L** | 425 | 400 |
| **RA 8002** | 760 | 730 |
| **RA 8003** | 635 | 605 |
| **RA 8004** | 630 | 600 |
| **RA 8003L** | 620 | 590 |
| **RA 8004L** | 610 | 580 |
| **GBA 12013** | 885 | 850 |
| **GBA 12014** | 875 | 840 |
| **GBA 12015** | 850 | 815 |
| **GBA 12013L** | 835 | 800 |
| **GBA 12014L** | 835 | 800 |
| **GBA 12015L** | 800 | 765 |
| **GBA 16003** | 1210 | 1175 |
| **GBA 16004** | 1050 | 1015 |
| **GBA 16005** | 985 | 950 |
| **GBA 16003L** | 1210 | 1175 |
| **GBA 16004L** | 1000 | 965 |
| **GBA 16005L** | 935 | 900 |
| **GBA 21003** | 1465 | 1415 |
| **GBA 21004** | 1300 | 1250 |
| **GBA 21005** | 1240 | 1190 |
| **GBA 26003** | 1580 | 1520 |
| **GBA 26004** | 1465 | 1405 |
| **GBA 26005** | 1450 | 1390 |
| **GBA 31004** | 2510 | 2360 |
| **GBA 31005** | 2500 | 2350 |
| **GBA 40004** | 2635 | 2485 |
| **GBA 40005** | 2620 | 2470 |
| **GBA 45004** | 2960 | 2810 |
| **GBA 45005** | 2800 | 2650 |
| **GBA 53004** | 4600 | 4250 |
| **GBA 53005** | 4485 | 4135 |
| **GBA 61004** | 4600 | 4250 |
| **GBA 61005** | 4485 | 4135 |
| **GBA 61006** | 4420 | 4070 |
| **GBA 85004** | 5000 | 4600 |
| **GBA 85005** | 4885 | 4485 |
| **GBA 85006** | 4875 | 4475 |
| **GBA 110005** | 9385 | 8485 |
| **GBA 110006** | 9375 | 8475 |
| **GBA 130005** | 9730 | 8830 |
| **GBA 130006** | 9365 | 8665 |

| | CC |
|---|---|
| kg |  |
| **CC30** | 35 |
| **CC120** | 50 |
| **CC350** | 90 |
| **CC600** | 135 |
| **CC1000** | 350 |

# RE 1520

dinamic oil

| | | $n_1$= **750** RPM | | | $n_1$= **900** RPM | | | $n_1$= **1450** RPM | | | $n_1$= **2900** RPM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ie** | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$T_{2max}$** [Nm] | **$P_t$** [kW] |
| **RE 1521** | **4.09** | 183 | ***193*** | 9800 | 220 | ***219*** | 9280 | 354 | ***306*** | 8040 | — | — | — | 39000 | 44 (T) |
| | **5.25** | 143 | ***158*** | 10300 | 171 | ***179*** | 9730 | 276 | ***250*** | 8430 | — | — | — | 30500 | 36 (H) |
| | **6.23** | 120 | ***114*** | 8780 | 144 | ***135*** | 8690 | 233 | ***211*** | 8460 | — | — | — | 24200 | 28 (F) |
| **RE 1522** | **14.73** | 51 | ***78*** | 13900 | 61 | ***89*** | 13200 | 98 | ***124*** | 11400 | 197 | ***201*** | 9270 | 39000 | 25 (T) |
| | **17.39** | 43.1 | ***68*** | 14400 | 52 | ***78*** | 13600 | 83 | ***108*** | 11800 | 167 | ***176*** | 9590 | 39000 | 21 (H) |
| | **21.82** | 34.4 | ***53*** | 14100 | 41.3 | ***64*** | 14000 | 66 | ***90*** | 12300 | 133 | ***146*** | 9990 | 38900 | 16 (F) |
| | **25.36** | 29.6 | ***38.9*** | 11900 | 35.5 | ***46.2*** | 11800 | 57 | ***72*** | 11500 | 114 | ***130*** | 10400 | 32900 | |
| | **28.00** | 26.8 | ***35.9*** | 12200 | 32.1 | ***42.7*** | 12100 | 52 | ***67*** | 11700 | 104 | ***129*** | 11300 | 30500 | |
| | **32.55** | 23.0 | ***31.2*** | 12300 | 27.6 | ***37.0*** | 12200 | 44.5 | ***58*** | 11800 | 89 | ***112*** | 11400 | 30500 | |
| | **33.23** | 22.6 | ***24.0*** | 9700 | 27.1 | ***28.5*** | 9570 | 43.6 | ***44.7*** | 9310 | 87 | ***86*** | 8950 | 24200 | |
| | **39.38** | 19.0 | ***25.2*** | 12000 | 22.9 | ***29.9*** | 11900 | 36.8 | ***46.9*** | 11600 | 74 | ***90*** | 11100 | 30500 | |
| | **46.73** | 16.0 | ***17.4*** | 9900 | 19.3 | ***20.7*** | 9750 | 31.0 | ***32.4*** | 9490 | 62 | ***62*** | 9120 | 24200 | |
| **RE 1523** | **51.25** | 14.6 | ***27.2*** | 16400 | 17.6 | ***31.7*** | 16000 | 28.3 | ***44.2*** | 13800 | 57 | ***72*** | 11200 | 39000 | 17 (T) |
| | **60.50** | 12.4 | ***23.2*** | 16600 | 14.9 | ***27.6*** | 16400 | 24.0 | ***43.2*** | 16000 | 47.9 | ***72*** | 13300 | 39000 | 15 (H) |
| | **62.78** | 11.9 | ***22.4*** | 16600 | 14.3 | ***26.6*** | 16400 | 23.1 | ***37.8*** | 14500 | 46.2 | ***61*** | 11800 | 39000 | 12 (F) |
| | **74.12** | 10.1 | ***19.2*** | 16800 | 12.1 | ***22.8*** | 16600 | 19.6 | ***35.7*** | 16200 | 39.1 | ***61*** | 13900 | 39000 | |
| | **80.57** | 9.3 | ***13.6*** | 12900 | 11.2 | ***16.2*** | 12800 | 18.0 | ***25.3*** | 12500 | 36.0 | ***49*** | 12000 | 30500 | |
| | **93.01** | 8.1 | ***14.0*** | 15300 | 9.7 | ***16.6*** | 15200 | 15.6 | ***26.0*** | 14800 | 31.2 | ***50*** | 14200 | 38900 | |
| | **100.31** | 7.5 | ***14.1*** | 16700 | 9.0 | ***16.8*** | 16600 | 14.5 | ***26.3*** | 16100 | 28.9 | ***48.1*** | 14700 | 39000 | |
| | **109.04** | 6.9 | ***10.2*** | 13200 | 8.3 | ***12.1*** | 13000 | 13.3 | ***19.0*** | 12700 | 26.6 | ***36.6*** | 12200 | 30500 | |
| | **125.87** | 6.0 | ***10.5*** | 15600 | 7.2 | ***12.5*** | 15500 | 11.5 | ***19.6*** | 15000 | 23.0 | ***37.6*** | 14500 | 38900 | |
| | **146.33** | 5.1 | ***7.6*** | 13200 | 6.2 | ***9.1*** | 13100 | 9.9 | ***14.2*** | 12700 | 19.8 | ***27.4*** | 12200 | 32900 | |
| | **157.09** | 4.8 | ***8.2*** | 15100 | 5.7 | ***9.7*** | 15000 | 9.2 | ***15.2*** | 14600 | 18.5 | ***29.2*** | 14000 | 38900 | |
| | **182.62** | 4.1 | ***6.2*** | 13400 | 4.9 | ***7.4*** | 13200 | 7.9 | ***11.6*** | 12900 | 15.9 | ***22.2*** | 12400 | 32900 | |
| | **201.60** | 3.7 | ***6.0*** | 14400 | 4.5 | ***7.1*** | 14000 | 7.2 | ***10.7*** | 13100 | 14.4 | ***20.5*** | 12600 | 30500 | |
| | **234.36** | 3.2 | ***5.3*** | 14700 | 3.8 | ***6.2*** | 14300 | 6.2 | ***9.3*** | 13300 | 12.4 | ***17.8*** | 12700 | 30500 | |
| | **239.26** | 3.1 | ***4.0*** | 11400 | 3.8 | ***4.7*** | 11100 | 6.1 | ***7.1*** | 10400 | 12.1 | ***13.7*** | 10000 | 24200 | |
| | **278.14** | 2.7 | ***3.5*** | 11600 | 3.2 | ***4.1*** | 11300 | 5.2 | ***6.2*** | 10500 | 10.4 | ***11.9*** | 10100 | 24200 | |
| **RE 1524** | **210.56** | 3.6 | ***8.0*** | 19400 | 4.3 | ***9.4*** | 18900 | 6.9 | ***14.0*** | 17600 | 13.8 | ***26.3*** | 16500 | 39000 | 14 (T) |
| | **218.49** | 3.4 | ***7.8*** | 19500 | 4.1 | ***9.1*** | 19000 | 6.6 | ***13.6*** | 17700 | 13.3 | ***25.4*** | 16500 | 39000 | 12 (F) |
| | **257.94** | 2.9 | ***6.7*** | 20000 | 3.5 | ***7.9*** | 19500 | 5.6 | ***11.8*** | 18100 | 11.2 | ***21.7*** | 16700 | 39000 | 9 (P) |
| | **280.40** | 2.7 | ***4.7*** | 15100 | 3.2 | ***5.5*** | 14700 | 5.2 | ***8.2*** | 13700 | 10.3 | ***15.4*** | 12900 | 30500 | |
| | **315.99** | 2.4 | ***5.6*** | 20400 | 2.8 | ***6.6*** | 20100 | 4.6 | ***9.9*** | 18700 | 9.2 | ***17.9*** | 16900 | 39000 | |
| | **349.06** | 2.1 | ***5.1*** | 20500 | 2.6 | ***6.1*** | 20300 | 4.2 | ***9.1*** | 19000 | 8.3 | ***16.5*** | 17100 | 39000 | |
| | **396.53** | 1.9 | ***3.7*** | 16700 | 2.3 | ***4.3*** | 16500 | 3.7 | ***6.8*** | 16100 | 7.3 | ***13.1*** | 15400 | 38900 | |
| | **452.05** | 1.7 | ***4.1*** | 21400 | 2.0 | ***4.9*** | 21100 | 3.2 | ***7.3*** | 19700 | 6.4 | ***13.2*** | 17800 | 39000 | |
| | **508.89** | 1.5 | ***2.8*** | 16500 | 1.8 | ***3.3*** | 16100 | 2.8 | ***4.9*** | 15000 | 5.7 | ***8.9*** | 13500 | 30500 | |
| | **578.69** | 1.3 | ***2.8*** | 18500 | 1.6 | ***3.3*** | 18300 | 2.5 | ***5.2*** | 17800 | 5.0 | ***9.9*** | 17100 | 39000 | |
| | **629.07** | 1.2 | ***2.4*** | 17100 | 1.4 | ***2.8*** | 16600 | 2.3 | ***4.1*** | 15500 | 4.6 | ***7.4*** | 13900 | 30500 | |
| | **722.20** | 1.0 | ***2.3*** | 18700 | 1.2 | ***2.7*** | 18500 | 2.0 | ***4.2*** | 18000 | 4.0 | ***8.1*** | 17300 | 39000 | |
| | **800.57** | 0.94 | ***1.9*** | 17700 | 1.1 | ***2.2*** | 17200 | 1.8 | ***3.4*** | 16000 | 3.6 | ***6.1*** | 14400 | 30500 | |
| | **906.29** | 0.83 | ***1.8*** | 18600 | 0.99 | ***2.1*** | 18100 | 1.6 | ***3.1*** | 16800 | 3.2 | ***6.0*** | 16200 | 38900 | |
| | **999.11** | 0.75 | ***1.6*** | 18300 | 0.90 | ***1.9*** | 17800 | 1.5 | ***2.8*** | 16600 | 2.9 | ***5.0*** | 14900 | 30500 | |
| | **1156.68** | 0.65 | ***1.3*** | 17300 | 0.78 | ***1.5*** | 17100 | 1.3 | ***2.4*** | 16700 | 2.5 | ***4.4*** | 15300 | 30500 | |
| | **1285.79** | 0.58 | ***0.99*** | 14700 | 0.70 | ***1.2*** | 14300 | 1.1 | ***1.7*** | 13300 | 2.3 | ***3.1*** | 12000 | 24200 | |
| | **1451.52** | 0.52 | ***1.2*** | 19400 | 0.62 | ***1.4*** | 18900 | 1.0 | ***2.0*** | 17500 | 2.0 | ***3.7*** | 15800 | 30500 | |
| | **1635.58** | 0.46 | ***0.83*** | 15700 | 0.55 | ***0.97*** | 15300 | 0.89 | ***1.5*** | 14300 | 1.8 | ***2.8*** | 13800 | 30500 | |
| | **1722.68** | 0.44 | ***0.77*** | 15300 | 0.52 | ***0.90*** | 14900 | 0.84 | ***1.4*** | 13900 | 1.7 | ***2.4*** | 12500 | 24200 | |
| | **2041.20** | 0.37 | ***0.69*** | 16200 | 0.44 | ***0.81*** | 15800 | 0.71 | ***1.2*** | 14700 | 1.4 | ***2.3*** | 13900 | 30500 | |

# RA 1520

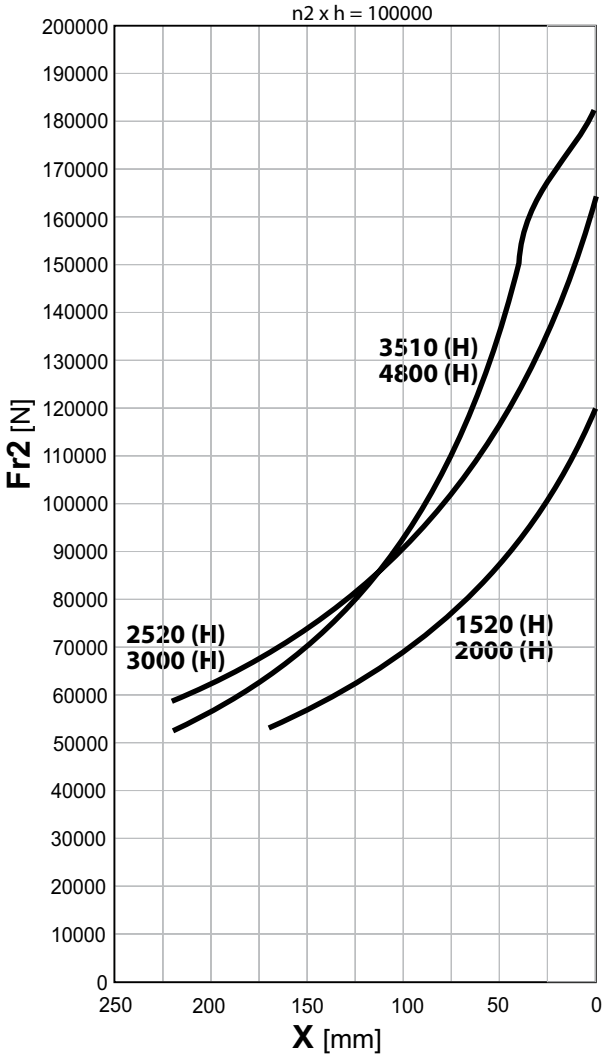
| | | $n_1$= **750** RPM | | | $n_1$= **900** RPM | | | $n_1$= **1450** RPM | | | $n_1$= **2900** RPM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ie** | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$n_2$** [RPM] | **$P_1$** [kW] | **$T_2$** [Nm] | **$T_{2max}$** [Nm] | **$P_t$** [kW] |
| **RA 1522** | **12.56** | 60 | ***91.7*** | 13700 | 72 | ***104*** | 13000 | 115 | ***145*** | 11300 | 231 | ***236*** | 9150 | 39000 | 24 (T)<br>20 (H)<br>18 (F) |
| | **16.13** | 46.5 | ***61.4*** | 11800 | 56 | ***73*** | 11700 | 90 | ***114*** | 11400 | 180 | ***193*** | 9590 | 30500 | |
| | **19.09** | 39.3 | ***53.9*** | 12300 | 47.1 | ***64*** | 12100 | 76 | ***100*** | 11800 | 152 | ***176*** | 10400 | 31600 | |
| | **24.50** | 30.6 | ***41.4*** | 12100 | 36.7 | ***49.2*** | 12000 | 59 | ***77*** | 11600 | 118 | ***144*** | 10900 | 30500 | |
| | **29.08** | 25.8 | ***27.7*** | 9600 | 31.0 | ***32.9*** | 9500 | 49.9 | ***52*** | 9200 | 100 | ***99*** | 8880 | 24200 | |
| **RA 1523** | **34.38** | 21.8 | ***27.8*** | 11100 | 26.2 | ***31.6*** | 10500 | 42.2 | ***44.1*** | 9100 | 84 | ***72*** | 7400 | 34100 | 15 (T)<br>13 (H)<br>11 (F) |
| | **41.03** | 18.3 | ***27.8*** | 13200 | 21.9 | ***31.6*** | 12500 | 35.3 | ***44.1*** | 10900 | 71 | ***72*** | 8830 | 39000 | |
| | **48.43** | 15.5 | ***27.8*** | 15600 | 18.6 | ***31.6*** | 14800 | 29.9 | ***44.1*** | 12800 | 60 | ***72*** | 10400 | 39000 | |
| | **58.91** | 12.7 | ***20.6*** | 14100 | 15.3 | ***23.4*** | 13300 | 24.9 | ***32.6*** | 11400 | 49.2 | ***53.0*** | 9380 | 39000 | |
| | **62.16** | 12.1 | ***17.6*** | 12700 | 14.5 | ***21.0*** | 12600 | 23.3 | ***32.9*** | 12300 | 46.7 | ***63*** | 11800 | 30500 | |
| | **70.66** | 10.6 | ***15.4*** | 12700 | 12.7 | ***18.3*** | 12500 | 20.5 | ***28.7*** | 12200 | 41.0 | ***55*** | 11700 | 24200 | |
| | **78.00** | 9.6 | ***14.2*** | 12900 | 11.5 | ***16.9*** | 12800 | 18.6 | ***26.5*** | 12400 | 37.2 | ***51*** | 12000 | 32900 | |
| | **89.25** | 8.4 | ***12.5*** | 13000 | 10.1 | ***14.9*** | 12900 | 16.2 | ***23.4*** | 12500 | 32.5 | ***44.9*** | 12000 | 30500 | |
| | **101.45** | 7.4 | ***11.0*** | 12900 | 8.9 | ***13.0*** | 12800 | 14.3 | ***20.4*** | 12500 | 28.6 | ***39.3*** | 12000 | 30500 | |
| | **112.00** | 6.7 | ***10.1*** | 13200 | 8.0 | ***12.0*** | 13000 | 12.9 | ***18.9*** | 12700 | 25.9 | ***36.2*** | 12200 | 32900 | |
| | **130.20** | 5.8 | ***8.9*** | 13500 | 6.9 | ***10.4*** | 13200 | 11.1 | ***16.4*** | 12800 | 22.3 | ***31.5*** | 12300 | 30500 | |
| | **154.52** | 4.9 | ***5.9*** | 10600 | 5.8 | ***7.0*** | 10400 | 9.4 | ***10.9*** | 10200 | 18.8 | ***21.0*** | 9770 | 30500 | |
| | **186.92** | 4.0 | ***5.0*** | 11000 | 4.8 | ***5.9*** | 10700 | 7.8 | ***9.1*** | 10300 | 15.5 | ***17.6*** | 9880 | 24200 | |
| **RA 1524** | **164.00** | 4.6 | ***7.5*** | 13900 | 5.5 | ***8.9*** | 13700 | 8.8 | ***13.1*** | 12600 | 17.7 | ***21.2*** | 10200 | 24200 | 11 (T)<br>9 (H)<br>8 (F) |
| | **193.61** | 3.9 | ***7.5*** | 16400 | 4.6 | ***8.9*** | 16200 | 7.5 | ***13.1*** | 14800 | 15.0 | ***21.2*** | 12000 | 35500 | |
| | **200.91** | 3.7 | ***7.5*** | 17000 | 4.5 | ***8.9*** | 16800 | 7.2 | ***13.1*** | 15400 | 14.4 | ***21.2*** | 12500 | 39000 | |
| | **237.19** | 3.2 | ***7.4*** | 19800 | 3.8 | ***8.6*** | 19200 | 6.1 | ***12.9*** | 17900 | 12.2 | ***21.2*** | 14800 | 39000 | |
| | **248.47** | 3.0 | ***5.3*** | 14800 | 3.6 | ***6.2*** | 14400 | 5.8 | ***9.2*** | 13400 | 11.7 | ***17.5*** | 12800 | 39000 | |
| | **271.89** | 2.8 | ***4.9*** | 15200 | 3.3 | ***5.8*** | 15000 | 5.3 | ***9.2*** | 14600 | 10.7 | ***17.6*** | 14000 | 30500 | |
| | **297.65** | 2.5 | ***4.9*** | 16400 | 3.0 | ***5.8*** | 16200 | 4.9 | ***9.1*** | 15800 | 9.7 | ***17.4*** | 15200 | 39000 | |
| | **320.98** | 2.3 | ***4.9*** | 17900 | 2.8 | ***5.8*** | 17700 | 4.5 | ***9.2*** | 17200 | 9.0 | ***17.6*** | 16600 | 38900 | |
| | **348.92** | 2.1 | ***4.0*** | 15600 | 2.6 | ***4.6*** | 15200 | 4.2 | ***6.9*** | 14100 | 8.3 | ***12.7*** | 13000 | 39000 | |
| | **402.80** | 1.9 | ***3.7*** | 16700 | 2.2 | ***4.3*** | 16500 | 3.6 | ***6.8*** | 16100 | 7.2 | ***13.1*** | 15400 | 30500 | |
| | **444.05** | 1.7 | ***3.2*** | 16200 | 2.0 | ***3.8*** | 15800 | 3.3 | ***5.6*** | 14700 | 6.5 | ***10.1*** | 13200 | 38900 | |
| | **516.92** | 1.5 | ***2.8*** | 16600 | 1.7 | ***3.3*** | 16100 | 2.8 | ***5.0*** | 15000 | 5.6 | ***8.9*** | 13500 | 30500 | |
| | **600.92** | 1.2 | ***2.5*** | 17000 | 1.5 | ***2.9*** | 16500 | 2.4 | ***4.4*** | 15300 | 4.8 | ***7.8*** | 13800 | 30500 | |
| | **645.12** | 1.2 | ***2.3*** | 17100 | 1.4 | ***2.7*** | 16700 | 2.2 | ***4.1*** | 15500 | 4.5 | ***7.4*** | 14000 | 30500 | |
| | **749.95** | 1.0 | ***2.1*** | 17500 | 1.2 | ***2.4*** | 17100 | 1.9 | ***3.6*** | 15900 | 3.9 | ***6.5*** | 14300 | 30500 | |
| | **907.20** | 0.83 | ***1.4*** | 14400 | 0.99 | ***1.7*** | 14200 | 1.6 | ***2.6*** | 13800 | 3.2 | ***5.0*** | 13300 | 30500 | |
| | **1076.68** | 0.70 | ***1.2*** | 14300 | 0.84 | ***1.4*** | 13900 | 1.3 | ***2.0*** | 12900 | 2.7 | ***3.7*** | 11600 | 30500 | |

# RE 2000

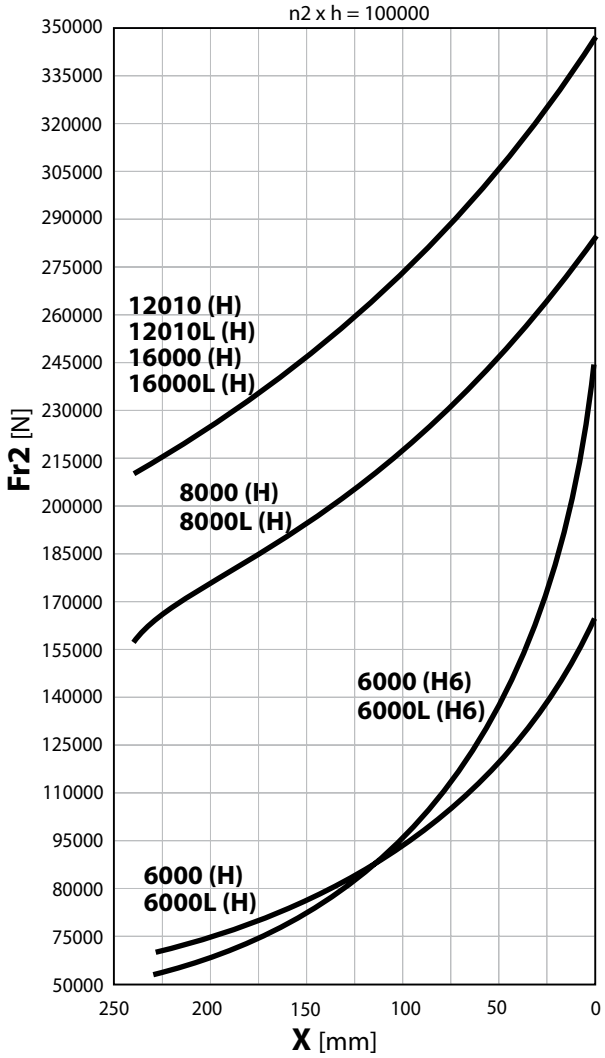
| | | ie | $n_1$= **750** RPM | | | $n_1$= **900** RPM | | | $n_1$= **1450** RPM | | | $n_1$= **2900** RPM | | | $T_{2max}$ | $P_t$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | [Nm] | [kW] |
| **RE 2001** | | **3.83** | 196 | ***272*** | 12900 | 235 | ***309*** | 12200 | 378 | ***431*** | 10600 | — | — | — | 44100 | 44 (T)<br>36 (H)<br>28 (F) |
| | | **5.25** | 143 | ***210*** | 13700 | 171 | ***239*** | 13000 | 276 | ***333*** | 11200 | — | — | — | 40300 | |
| **RE 2002** | L | **13.80** | 54 | ***78*** | 13000 | 65 | ***89*** | 12300 | 105 | ***124*** | 10700 | 210 | ***201*** | 8680 | 44000 | 25 (T)<br>21 (H)<br>16 (F) |
| | | **15.33** | 48.9 | ***96*** | 17700 | 59 | ***109*** | 16800 | 95 | ***152*** | 14600 | 189 | ***246*** | 11800 | 44100 | |
| | | **17.42** | 43.0 | ***86*** | 18100 | 52 | ***98*** | 17200 | 83 | ***136*** | 14900 | 166 | ***222*** | 12100 | 44100 | |
| | | **21.00** | 35.7 | ***61*** | 15600 | 42.9 | ***73*** | 15400 | 69 | ***114*** | 15000 | 138 | ***210*** | 13800 | 40300 | |
| | L | **22.31** | 33.6 | ***58*** | 15600 | 40.3 | ***69*** | 15500 | 65 | ***108*** | 15100 | 130 | ***176*** | 12300 | 40300 | |
| | L | **28.00** | 26.8 | ***46.7*** | 15800 | 32.1 | ***55*** | 15700 | 52 | ***87*** | 15300 | 104 | ***146*** | 12800 | 40300 | |
| | L | **32.55** | 23.0 | ***38.9*** | 15300 | 27.6 | ***46.2*** | 15200 | 44.5 | ***72*** | 14800 | 89 | ***130*** | 13300 | 40300 | |
| | L | **39.38** | 19.0 | ***25.2*** | 12000 | 22.9 | ***29.9*** | 11900 | 36.8 | ***47*** | 11600 | 74 | ***90*** | 11100 | 33200 | |
| **RE 2003** | L | **48.02** | 15.6 | ***27.9*** | 15800 | 18.7 | ***31.7*** | 15000 | 30.2 | ***44*** | 13000 | 60 | ***72*** | 10500 | 44000 | 18 (T)<br>15 (H)<br>12 (F) |
| | | **55.20** | 13.6 | ***35.1*** | 22900 | 16.3 | ***41.7*** | 22700 | 26.3 | ***63*** | 21400 | 53 | ***103*** | 17400 | 44100 | |
| | | **65.17** | 11.5 | ***30.0*** | 23100 | 13.8 | ***35.7*** | 22900 | 22.3 | ***56*** | 22300 | 44.5 | ***92*** | 18200 | 44100 | |
| | | **74.05** | 10.1 | ***23.5*** | 20600 | 12.2 | ***28.0*** | 20400 | 19.6 | ***43.8*** | 19800 | 39.2 | ***83*** | 18700 | 44100 | |
| | | **81.78** | 9.2 | ***24.3*** | 23400 | 11.0 | ***28.8*** | 23200 | 17.7 | ***45.2*** | 22500 | 35.5 | ***78*** | 19500 | 44100 | |
| | | **92.93** | 8.1 | ***19.0*** | 20800 | 9.7 | ***22.6*** | 20600 | 15.6 | ***35.4*** | 20100 | 31.2 | ***68*** | 19300 | 44100 | |
| | | **101.42** | 7.4 | ***14.2*** | 17000 | 8.9 | ***16.9*** | 16900 | 14.3 | ***26.5*** | 16400 | 28.6 | ***51*** | 15800 | 40300 | |
| | | **112.00** | 6.7 | ***13.0*** | 17100 | 8.0 | ***15.4*** | 17000 | 12.9 | ***24.1*** | 16500 | 25.9 | ***46.4*** | 15900 | 40300 | |
| | L | **128.73** | 5.8 | ***11.4*** | 17300 | 7.0 | ***13.5*** | 17100 | 11.3 | ***21.2*** | 16600 | 22.5 | ***40.7*** | 16000 | 40300 | |
| | | **147.95** | 5.1 | ***10.0*** | 17400 | 6.1 | ***11.8*** | 17200 | 9.8 | ***18.6*** | 16800 | 19.6 | ***35.7*** | 16100 | 40300 | |
| | | **157.50** | 4.8 | ***9.4*** | 17500 | 5.7 | ***11.2*** | 17300 | 9.2 | ***17.5*** | 16800 | 18.4 | ***33.7*** | 16200 | 40300 | |
| | | **178.98** | 4.2 | ***8.5*** | 17900 | 5.0 | ***9.9*** | 17400 | 8.1 | ***15.5*** | 17000 | 16.2 | ***29.8*** | 16300 | 40300 | |
| | L | **201.60** | 3.7 | ***7.6*** | 18200 | 4.5 | ***8.9*** | 17700 | 7.2 | ***13.9*** | 17100 | 14.4 | ***26.7*** | 16400 | 40300 | |
| **RE 2004** | | **192.10** | 3.9 | ***11.1*** | 24600 | 4.7 | ***13.2*** | 24300 | 7.5 | ***20.7*** | 23700 | 15.1 | ***39.8*** | 22800 | 44100 | 14 (T)<br>12 (H)<br>10 (F) |
| | | **226.78** | 3.3 | ***9.5*** | 24800 | 4.0 | ***11.3*** | 24600 | 6.4 | ***17.7*** | 23900 | 12.8 | ***34.0*** | 23000 | 44100 | |
| | | **257.70** | 2.9 | ***7.5*** | 22100 | 3.5 | ***8.8*** | 21900 | 5.6 | ***13.9*** | 21300 | 11.3 | ***26.7*** | 20500 | 44100 | |
| | | **284.59** | 2.6 | ***7.7*** | 25100 | 3.2 | ***9.1*** | 24900 | 5.1 | ***14.3*** | 24200 | 10.2 | ***27.5*** | 23300 | 44100 | |
| | | **315.70** | 2.4 | ***6.2*** | 22400 | 2.9 | ***7.3*** | 22100 | 4.6 | ***11.5*** | 21500 | 9.2 | ***22.0*** | 20700 | 44100 | |
| | | **348.63** | 2.2 | ***6.3*** | 25400 | 2.6 | ***7.5*** | 25200 | 4.2 | ***4.7*** | 24500 | 8.3 | ***22.7*** | 23500 | 44100 | |
| | | **396.17** | 1.9 | ***5.0*** | 22600 | 2.3 | ***5.9*** | 22400 | 3.7 | ***9.2*** | 21800 | 7.3 | ***17.8*** | 21000 | 44100 | |
| | L | **447.97** | 1.7 | ***4.0*** | 20500 | 2.0 | ***4.6*** | 20000 | 3.2 | ***7.0*** | 18600 | 6.5 | ***12.9*** | 17200 | 40100 | |
| | L | **500.07** | 1.5 | ***3.6*** | 20500 | 1.8 | ***4.2*** | 19900 | 2.9 | ***6.4*** | 19000 | 5.8 | ***12.3*** | 18300 | 40100 | |
| | L | **562.15** | 1.3 | ***3.3*** | 21200 | 1.6 | ***3.8*** | 20700 | 2.6 | ***5.7*** | 19200 | 5.2 | ***10.4*** | 17400 | 40100 | |
| | L | **629.07** | 1.2 | ***2.8*** | 20100 | 1.4 | ***3.3*** | 19900 | 2.3 | ***5.2*** | 19400 | 4.6 | ***9.4*** | 17600 | 40100 | |
| | L | **701.57** | 1.1 | ***2.7*** | 22000 | 1.3 | ***3.2*** | 21400 | 2.1 | ***4.8*** | 19900 | 4.1 | ***8.6*** | 17900 | 40100 | |
| | | **806.40** | 0.93 | ***2.4*** | 22400 | 1.1 | ***2.8*** | 21800 | 1.8 | ***4.2*** | 20300 | 3.6 | ***7.6*** | 18300 | 40300 | |
| | | **908.65** | 0.83 | ***2.2*** | 22800 | 0.99 | ***2.6*** | 22200 | 1.6 | ***3.8*** | 20700 | 3.2 | ***6.9*** | 18600 | 40300 | |
| | | **1032.56** | 0.73 | ***2.0*** | 23300 | 0.87 | ***2.3*** | 22700 | 1.4 | ***3.4*** | 21100 | 2.8 | ***6.2*** | 19000 | 40300 | |
| | | **1134.00** | 0.66 | ***1.8*** | 23600 | 0.79 | ***2.1*** | 23000 | 1.3 | ***3.2*** | 21400 | 2.6 | ***5.7*** | 19300 | 40300 | |
| | | **1288.64** | 0.58 | ***1.6*** | 24100 | 0.70 | ***1.9*** | 23400 | 1.1 | ***2.8*** | 21800 | 2.3 | ***5.1*** | 19600 | 40300 | |
| | L | **1451.52** | 0.52 | ***1.3*** | 21700 | 0.62 | ***1.5*** | 21500 | 1.0 | ***2.4*** | 20900 | 2.0 | ***4.6*** | 20000 | 40100 | |

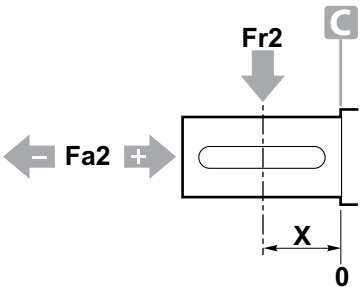
| | | ie | $n_1$= **750** RPM | | | $n_1$= **900** RPM | | | $n_1$= **1450** RPM | | | $n_1$= **2900** RPM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $n_2$ [RPM] | $P_1$ [kW] | $T_2$ [Nm] | $T_{2max}$ [Nm] | $P_t$ [kW] |
| **RA 2002** | | **11.77** | 64 | ***107*** | 15000 | 76 | ***121*** | 14200 | 123 | ***169*** | 12300 | 246 | ***275*** | 9970 | 44100 | 24 (T)<br>20 (H)<br>18 (F) |
| | | **16.13** | 46.5 | ***80*** | 15300 | 56 | ***95*** | 15200 | 90 | ***149*** | 14800 | 180 | ***257*** | 12800 | 40300 | |
| | | **17.89** | 41.9 | ***54*** | 11500 | 50 | ***64*** | 11400 | 81 | ***100*** | 11100 | 162 | ***191*** | 10500 | 29600 | |
| | | **24.50** | 30.6 | ***54*** | 15700 | 36.7 | ***64*** | 15600 | 59 | ***100*** | 15100 | 118 | ***191*** | 14400 | 40300 | |
| **RA 2003** | **L** | **38.44** | 19.5 | ***27.1*** | 12400 | 23.4 | ***31.6*** | 11800 | 37.7 | ***44.1*** | 10200 | 75 | ***72*** | 8270 | 44000 | 15 (T)<br>13 (H)<br>11 (F) |
| | | **42.71** | 17.6 | ***27.1*** | 13800 | 21.1 | ***31.6*** | 13100 | 33.9 | ***44.1*** | 11300 | 68 | ***72*** | 9190 | 44100 | |
| | **L** | **45.38** | 16.5 | ***27.8*** | 14700 | 19.8 | ***31.6*** | 13900 | 31.9 | ***44.1*** | 12000 | 64 | ***72*** | 9770 | 44000 | |
| | **L** | **52.65** | 14.2 | ***26.8*** | 16400 | 17.1 | ***31.6*** | 16100 | 27.5 | ***44.1*** | 13900 | 55 | ***72*** | 11300 | 40300 | |
| | **L** | **55.20** | 13.6 | ***20.6*** | 13200 | 16.3 | ***23.4*** | 12500 | 26.3 | ***32.6*** | 10800 | 53 | ***53*** | 8790 | 38200 | |
| | **L** | **62.16** | 12.1 | ***22.9*** | 16600 | 14.5 | ***27.3*** | 16400 | 23.3 | ***42.7*** | 16000 | 46.7 | ***72*** | 13400 | 40300 | |
| | | **69.70** | 10.8 | ***20.6*** | 16600 | 12.9 | ***23.4*** | 15800 | 20.8 | ***32.6*** | 13700 | 41.6 | ***53.0*** | 11100 | 44100 | |
| | **L** | **78.00** | 9.6 | ***18.5*** | 16800 | 11.5 | ***22.0*** | 16600 | 18.6 | ***34.5*** | 16200 | 37.2 | ***66*** | 15500 | 40300 | |
| | **L** | **89.25** | 8.4 | ***16.3*** | 16900 | 10.1 | ***19.4*** | 16700 | 16.2 | ***30.4*** | 16300 | 32.5 | ***53.0*** | 14200 | 40300 | |
| | | **95.45** | 7.9 | ***15.3*** | 17000 | 9.4 | ***18.2*** | 16800 | 15.2 | ***28.5*** | 16400 | 30.4 | ***53.0*** | 15200 | 40300 | |
| | **L** | **112.00** | 6.7 | ***13.2*** | 17100 | 8.0 | ***15.6*** | 17000 | 12.9 | ***24.5*** | 16500 | 25.9 | ***47.1*** | 15900 | 40300 | |
| | **L** | **130.20** | 5.8 | ***11.0*** | 16600 | 6.9 | ***13.0*** | 16400 | 11.1 | ***20.4*** | 16000 | 22.3 | ***39.3*** | 15400 | 40300 | |
| | **L** | **157.50** | 4.8 | ***7.1*** | 13000 | 5.7 | ***8.4*** | 12900 | 9.2 | ***13.2*** | 12500 | 18.4 | ***25.4*** | 12000 | 33200 | |
| **RA 2004** | | **153.77** | 4.9 | ***13.9*** | 24300 | 5.9 | ***16.5*** | 24000 | 9.4 | ***25.9*** | 23400 | 18.9 | ***49.9*** | 22500 | 44100 | 13 (T)<br>9 (H)<br>10 (F) |
| | | **181.54** | 4.1 | ***11.9*** | 24500 | 5.0 | ***14.1*** | 24200 | 8.0 | ***22.2*** | 23600 | 16.0 | ***42.6*** | 22700 | 44100 | |
| | | **206.29** | 3.6 | ***9.3*** | 21800 | 4.4 | ***11.1*** | 21600 | 7.0 | ***17.4*** | 21000 | 14.1 | ***33.4*** | 20200 | 44100 | |
| | | **220.80** | 3.4 | ***9.9*** | 24800 | 4.1 | ***11.8*** | 24500 | 6.6 | ***18.4*** | 23900 | 13.1 | ***35.4*** | 22900 | 44100 | |
| | **L** | **248.47** | 3.0 | ***6.7*** | 18800 | 3.6 | ***7.8*** | 18300 | 5.8 | ***11.9*** | 17300 | 11.7 | ***21.2*** | 15500 | 40300 | |
| | | **282.53** | 2.7 | ***6.0*** | 19100 | 3.2 | ***5.8*** | 15200 | 5.1 | ***10.5*** | 17400 | 10.3 | ***20.2*** | 16700 | 40300 | |
| | **L** | **311.81** | 2.4 | ***5.5*** | 19400 | 3.2 | ***7.0*** | 18600 | 4.7 | ***9.6*** | 17600 | 9.3 | ***18.4*** | 16800 | 40300 | |
| | **L** | **348.92** | 2.1 | ***4.9*** | 19500 | 2.6 | ***5.8*** | 19200 | 4.2 | ***8.7*** | 17900 | 8.3 | ***16.6*** | 16900 | 40300 | |
| | **L** | **411.92** | 1.8 | ***4.3*** | 20300 | 2.2 | ***5.1*** | 19700 | 3.5 | ***7.6*** | 18300 | 7.0 | ***14.2*** | 17100 | 40300 | |
| | | **448.00** | 1.7 | ***4.0*** | 20500 | 2.0 | ***4.7*** | 20000 | 3.2 | ***7.1*** | 18600 | 6.5 | ***13.1*** | 17200 | 40300 | |
| | | **498.58** | 1.5 | ***3.7*** | 20900 | 1.8 | ***4.3*** | 20300 | 2.9 | ***6.5*** | 18900 | 5.8 | ***11.8*** | 17300 | 40300 | |
| | **L** | **547.58** | 1.4 | ***2.2*** | 13400 | 1.6 | ***2.6*** | 13300 | 2.6 | ***4.0*** | 12900 | 5.3 | ***7.7*** | 12400 | 30900 | |
| | | **591.82** | 1.3 | ***3.2*** | 21400 | 1.5 | ***3.7*** | 20800 | 2.5 | ***5.6*** | 19400 | 4.9 | ***10.1*** | 17500 | 40300 | |
| | | **630.00** | 1.2 | ***3.0*** | 21600 | 1.4 | ***3.5*** | 21000 | 2.3 | ***5.3*** | 19600 | 4.6 | ***9.5*** | 17600 | 40300 | |
| | | **715.91** | 1.0 | ***2.7*** | 22000 | 1.3 | ***3.2*** | 21400 | 2.0 | ***4.8*** | 19900 | 4.1 | ***8.6*** | 18000 | 40300 | |
| | **L** | **907.20** | 0.83 | ***1.4*** | 14400 | 1.0 | ***1.7*** | 14200 | 1.6 | ***2.6*** | 13800 | 3.2 | ***5.0*** | 13300 | 33200 | |

## H (1520-2000-2520-3000-3510)




## H (6000-8000-12010-16000) - H6 (6000)




n2 x h = 100000

**Fa2** [N]

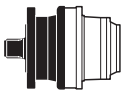
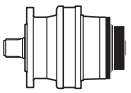
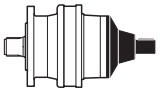
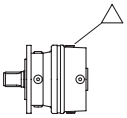
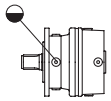
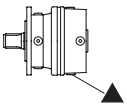
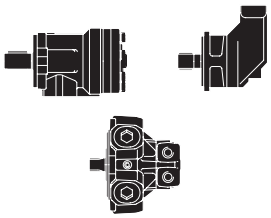
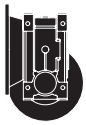
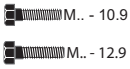
| RE-RA | FS | | FS1 | | H | | H6 | |
|---|---|---|---|---|---|---|---|---|
| | Fa2 (-) | Fa2 (+) | Fa2 (-) | Fa2 (+) | Fa2 (-) | Fa2 (+) | Fa2 (-) | Fa2 (+) |
| **1520** | 27000 | 27000 | — | — | 73400 | 104500 | — | — |
| **2000** | 27000 | 27000 | — | — | 73400 | 104500 | — | — |
| **2520** | 29500 | 29500 | — | — | 112600 | 149000 | — | — |
| **3000** | 29500 | 29500 | — | — | 112600 | 149000 | — | — |
| **3500** | 44000 | 44000 | — | — | 59000 | 44000 | — | — |
| **4800** | 44000 | 44000 | 65250* | 44000 | 59000 | 44000 | — | — |
| **6000** | 52000 | 42000 | — | — | 148500 | 131000 | 94000 | 42000 |
| **8000** | 67000 | 56000* | 82200* | 56000* | 94000 | 56000* | — | — |
| **12010** | 75000 | 65250* | — | — | 114000 | 65250* | — | — |
| **16000** | 75000 | 65250* | 113600* | 65250* | 114000 | 65250* | — | — |

*** Fa/Fr < 0.4**

| | $n_2$ x h | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20000 | 40000 | 60000 | 80000 | 100000 | 200000 | 400000 |
| $K_f$ | 1.7 | 1.3 | 1.15 | 1.06 | 1 | 0.8 | 0.63 |

# Simbologia e unità di misura

| Simbolo | Unità di misura | Descrizione |
|---|---|---|
| $_1$ | | valore riferito all'ingresso |
| $_2$ | | valore riferito all'uscita |
| **bu** | mm | altezza fascia dentata |
| **de** | mm | diametro esterno |
| **dp** | mm | diametro primitivo teorico |
| **fa** | N | carico assiale |
| $\mathbf{f_{amax}}$ | N | carico assiale massimo |
| $\mathbf{f_r}$ | N | carico radiale |
| **H** | mm | altezza pignone |
| $\mathbf{i_e}$ | - | rapporto di riduzione effettivo |
| **m** | mm | modulo |
| **n** | RPM | velocità |
| $\mathbf{n_{max}}$ | RPM | velocità massima |
| **nxh** | RPMxh | indice di durata |
| $\mathbf{P_1}$ | kW | potenza nominale |
| **pb** | bar | pressione apertura freno |
| **pmax** | bar | pressione massima freno |
| $\mathbf{P_t}$ | kW | potenza termica |
| **T** | Nm | coppia |
| $\mathbf{T_b}$ | Nm | coppia frenante |
| $\mathbf{T_{max}}$ | Nm | coppia massima |
| **X** | mm | distanza applicazione carico |
| **x** | - | correzione dentatura |
| **z** | - | numero di denti |

| Simbolo | Descrizione |
|---|---|
|  | Supporto in uscita |
|  | Entrata |
|  | Supporto in entrata |
|  ...Nm | Coppia di serraggio [Nm] |
|   | Quantità d'olio [litri] |
|   | Peso [kg] |
|  | Carico olio / sfiato |
|  | Livello olio |
|  | Scarico olio |
|  | Motori idraulici |
|  | Motori elettrici |
|  | Riduttore a vite senza fine |
|   | Vite di fissaggio raccomandata |

# Definizioni tecniche

Tutti i valori prestazionali indicati nel presente catalogo sono calcolati secondo le normative ISO 6336
e ISO 281,ma potrebbero non rispondere a ulteriori requisiti richiesti dai regolamenti interni degli Enti certificatori.
Per selezioni in accordo con tali regolamenti contattare il servizio commerciale Dinamic Oil.

## $f_S$ - Fattore di servizio

è il fattore che tiene conto della gravosità dell'applicazione; dipende dalle condizioni di funzionamento, dal tipo di azionamento e dalla frequenza degli avviamenti.
I dati forniti nel presente catalogo sono calcolati per $f_s = 1$.
Il valore del fattore di servizio di un riduttore è calcolabile dividendo la sua potenza nominale per la potenza assorbita.

**Fattori di servizio**

| | CONDIZIONI DI FUNZIONAMENTO | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Uniforme U | | | Variabile con urti moderati M | | | Variabile con urti forti H | | |
| ore / giorno | AVVIAMENTI / ORA | | | | | | | | |
| | < 16 | 16 - 63 | 64 - 250 | < 16 | 16 - 63 | 64- 250 | < 16 | 16 - 63 | 64 - 250 |
| **< 0.5** | 0.9 | 1.3 | 1.5 | 0.9 | 1.3 | 1.5 | 1.2 | 1.5 | 1.8 |
| **0.5 - 3** | 0.9 | 1.3 | 1.5 | 1.2 | 1.5 | 1.8 | 1.7 | 2.0 | 2.3 |
| **3 - 8** | 1.2 | 1.5 | 1.8 | 1.4 | 1.8 | 2.0 | 1.9 | 2.3 | 2.8 |
| **8 - 24** | 1.4 | 1.8 | 2.0 | 1.7 | 2.0 | 2.5 | 2.4 | 2.8 | 3.0 |

## $P_1$ - Potenza nominale [kW]

è la potenza meccanica trasmissibile dal riduttore, riferita all'ingresso, alla quale con $f_s = 1$ il riduttore ha una durate di vita teorica pari a 10.000 ore secondo la norma ISO 6336. Tale valore non tiene conto di eventuali limiti di capacità termica del riduttore, ma si basa esclusivamente sulla tenuta meccanica in funzione della velocità di utilizzo.

## $P_a$ - Potenza assorbita [kW]

rispetto alla potenza installata o disponibile, è il valore di potenza realmente assorbita dall'applicazione, riferita all'ingresso del riduttore.

## $P_t$ - Potenza termica [kW]

è la massima potenza meccanica che il riduttore può trasmettere in funzionamento continuo, con lubrificazione a sbattimento, senza oltrepassare il livello termico limite (temperatura dell'olio non superiore a 90°C).
Potenze superiori possono essere trasmesse utilizzando tenute in viton e oli sintetici o appositi dispositivi di raffreddamento.
I valori indicati per le varie grandezze di riduttore si riferiscono ad un funzionamento continuo con velocità in ingresso di 1500 RPM, temperatura ambiente di 20°C, altitudine 0 / 500 m, applicazione al coperto.
Per diverse condizioni di impiego il valore di potenza termica deve essere moltiplicato per i fattori termici indicati nella seguente tabella. Per periodi di funzionamento limitati, seguiti da periodi di riposo sufficientemente lunghi da garantire un opportuno raffreddamento del riduttore, la potenza termica perde il suo significato e può essere trascurata.

**Fattori termici**

| Temperatura ambiente | Tempo di funzionamento [%] | | | | |
|---|---|---|---|---|---|
| | 100% | 80% | 60% | 40% | 20% |
| **10°** | 1.2 | 1.3 | 1.4 | 1.6 | 1.8 |
| **20°** | 1.0 | 1.1 | 1.3 | 1.4 | 1.6 |
| **30°** | 0.8 | 1.0 | 1.1 | 1.3 | 1.4 |
| **40°** | 0.7 | 0.8 | 1.0 | 1.1 | 1.3 |
| **50°** | 0.5 | 0.7 | 0.8 | 1.0 | 1.1 |

| Altitudine [m] | Velocità in ingresso [RPM] | | | | |
|---|---|---|---|---|---|
| | 400 | 800 | 1000 | 1500 | 2000 |
| **0** | 1.2 | 1.1 | 1.1 | 1.0 | 0.7 |
| **500** | 1.2 | 1.1 | 1.1 | 1.0 | 0.7 |
| **1000** | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |
| **1500** | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |
| **2000** | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |

## $P_d$ - Potenza da dissipare [kW]
rappresenta la potenza che un eventuale sistema di raffreddamento deve dissipare, nel caso in cui la potenza da trasmettere sia superiore alla potenza termica del riduttore.

## $\eta_m$ - Rendimento meccanico
è il rapporto tra potenza meccanica in uscita e potenza meccanica in ingresso; normalmente è considerato pari a 0.97 – 0.98 per ogni stadio di riduzione epicicloidale di cui è composto il riduttore e pari a 0.94 - 0.95 per l'eventuale coppia conica; il valore effettivo dipende da diversi fattori tra quali velocità, coppia, rapporto, posizione di montaggio e lubrificazione.

## $T_2$ - Coppia trasmessa [Nm]
è il valore di coppia applicata in continuo alla velocità $n_1$, alla quale il riduttore ha una durata di vita teorica di 10000 h per gli ingranaggi e 5000 h ($L_{h10}$) per i cuscinetti dell' ingranaggeria.

## $T_{max}$ - Coppia massima trasmissibile [Nm]
è la coppia massima trasmissibile dall'accessorio eventualmente fornito a corredo del riduttore. Questo valore potrebbe limitare la coppia massima trasmissibile dal riduttore.

## $T_{2max}$ - Coppia massima [Nm]
è la coppia massima d'uscita ammissibile come punta o per brevi durate (calcolata al 90% Rs del componente più debole). Per azionamenti che comportano un elevato numero di avviamenti o inversioni occorre considerare valori di coppia massima apportunamente ridotti.
Il valore indicato si riferisce alla versione con albero femmina scanalato (FS); versioni diverse potrebbero avere valori inferiori.

## $T_b$ - Coppia frenante [Nm]
è il valore della coppia frenante trasmissibile staticamente dal freno negativo.

## $n_1$ - Velocità in ingresso [RPM]
è la velocità al lato veloce del riduttore.

## $n_2$ - Velocità in uscita [RPM]
è la velocità al lato lento del riduttore.

## $n_{1max}$ - Velocità massima [RPM]
è la velocità massima in ingresso al freno. Per applicazioni con valori superiori rivolgersi al servizio commerciale Dinamic Oil per verificare la compatibilità con l'applicazione.

## $i_e$ - Rapporto di riduzione effettivo
è il rapporto di riduzione effettivo, cioè il rapporto tra la velocità di ingresso e quella di uscita dal riduttore.

## nxh - Indice di durata [RPMxh]
è il valore che equivale al prodotto tra la velocità e la durata di vita teorica espressa in ore. É espresso come $n_2$xh quando riferito alla velocità in uscita, come $n_1$xh quando riferito alla velocità in ingresso.

**Valori indicativi delle durate richieste per diverse applicazioni**

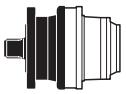
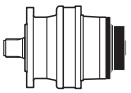
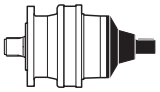
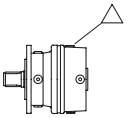
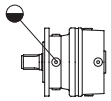
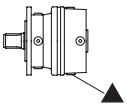
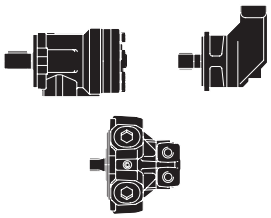
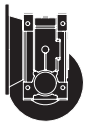
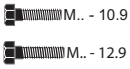
| Applicazione | Ore di vita richieste |
|---|---|
| Macchine agricole | 300 - 3000 |
| Macchine con funzionamento intermittente o per brevi periodi (macchine per l'edilizia) | 3000 - 8000 |
| Macchine con funzionamento intermittente o per brevi periodi con alta affidabilità operativa (montacarichi) | 8000 - 12000 |
| Macchine con funzionamento per 8 ore al giorno, ma non pienamente utilizzate (macchine varie per l'industria, frantoi rotativi) | 10000 - 25000 |
| Macchine con funzionamento per 8 ore al giorno pienamente utilizzate (macchine varie per l'industria, nastri trasportatori) | 20000 - 30000 |
| Macchine con funzionamento continuo (laminatoi, macchine tessili) | 40000 - 50000 |

## $k_f$ - Fattore di correzione
è il fattore da applicare per calcolare la durata teorica dei supporti con alberi maschio per valori di nxh diversi da quelli dei diagrammi riportati nel catalogo. Per tutti i riduttori le curve dei carichi esterni sono calcolate per:
- $n_2$xh = 100.000 per i supporti in uscita
- $n_1$xh = 1.500.000 per i supporti in ingresso

## $L_{min}$ - Lunghezza minima del braccio di reazione [mm]
è la lunghezza minima consigliata per il braccio di reazione da realizzarsi nelle applicazioni di tipo pendolare.

# Symbols and Unit of Measurement

| Symbol | Unit of measurement | Description |
|---|---|---|
| $_1$ | | Input value |
| $_2$ | | Output value |
| **bu** | mm | Height of toothed set |
| **de** | mm | External diameter |
| **dp** | mm | Theoretical primitive diameter |
| **fa** | N | Axial load |
| $\mathbf{f_{amax}}$ | N | Maximum axial load |
| $\mathbf{f_r}$ | N | Radial load |
| **H** | mm | Pinion height |
| $\mathbf{i_e}$ | - | Effective reduction ratio |
| **m** | mm | Module |
| **n** | RPM | Speed |
| $\mathbf{n_{max}}$ | RPM | Maximum speed |
| **nxh** | RPMxh | Duration index |
| $\mathbf{P_1}$ | kW | Rated power |
| **pb** | bar | Brake opening pressure |
| **pmax** | bar | Maximum brake pressure |
| $\mathbf{P_t}$ | kW | Thermal power |
| **T** | Nm | Torque |
| $\mathbf{T_b}$ | Nm | Braking torque |
| $\mathbf{T_{max}}$ | Nm | Maximum torque |
| **X** | mm | Load application distance |
| **x** | - | Tooth correction |
| **z** | - | Number of teeth |

| Symbol | Description |
|---|---|
|  | Support at output |
|  | Input |
|  | Support at input |
|  ...Nm | Tightening torque [Nm] |
|  | Oil quantity [liters] |
|  | Weight [kg] |
|  | Oil fill / breather plug |
|  | Oil level |
|  | Oil drain |
|  | Hydraulic motors |
|  | Electrical motors |
|  | Wormgearbox |
|  M.. - 10.9<br>M.. - 12.9 | Recommended screw |

# Technical Definitions

All values specified in this catalogue were calculated using the ISO 6336 and ISO 281 standards, but may not meet additional requirements set by the internal regulations of certifying bodies.
To select products that comply with these regulations, contact Dinamic Oil's sales team.

## $f_S$ - Service Factor

this factor represents the application's industrial rating; it depends on operating conditions, type of drive and frequency of start-up.
The information provided in this catalog is calculated for $f_s = 1$. The service factor value of a gearbox may be calculated by dividing its nominal power by its absorbed power.

**Service factors**

| | OPERATING CONDITIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Uniform U** | | | With moderate shocks **M** | | | With heavy shocks **H** | | |
| hours / day | START-UPS / HOUR | | | | | | | | |
| | **< 16** | **16 - 63** | **64 - 250** | **< 16** | **16 - 63** | **64- 250** | **< 16** | **16 - 63** | **64 - 250** |
| **< 0.5** | 0.9 | 1.3 | 1.5 | 0.9 | 1.3 | 1.5 | 1.2 | 1.5 | 1.8 |
| **0.5 - 3** | 0.9 | 1.3 | 1.5 | 1.2 | 1.5 | 1.8 | 1.7 | 2.0 | 2.3 |
| **3 - 8** | 1.2 | 1.5 | 1.8 | 1.4 | 1.8 | 2.0 | 1.9 | 2.3 | 2.8 |
| **8 - 24** | 1.4 | 1.8 | 2.0 | 1.7 | 2.0 | 2.5 | 2.4 | 2.8 | 3.0 |

## $P_1$ - Nominal Power [kW]

the mechanical power transmitted by the gearbox, related to input. At fs = 1 the gearbox has a theoretical lifetime of 10000 hours under the ISO 6336 standard. This value does not take into account any limits on the gearbox's thermal capacity, as it is exclusively based on mechanical resistance in accordance with the speed of use.

## $P_a$ - Absorbed Power [kW]

relates to installed or available power, the amount of power actually absorbed by the application, at the gearbox input

## $P_t$ - Thermal Power [kW]

the maximum mechanical power the gearbox can transmit while in continuous operation, with splash lubrication, without going beyond its maximum temperature level (oil temperature below 90°C). More power may be transmitted using a Viton seal and synthetic oils or special cooling devices. The values indicated for various gearbox sizes refer to continuous operation with input speeds of 1500 RPM, at an ambient temperature of 20°C and an altitude of 0 / 500 m, for indoor applications.
Under different conditions of use, thermal power must be multiplied by the thermal factors identified in the tables below. For limited periods of operation, followed by periods of rest long enough to guarantee sufficient cooling of the gearbox, thermal power loses its significance and may be neglected.

**Thermal Factors**

| Ambient Temperature | Operating Time [%] | | | | |
|---|---|---|---|---|---|
| | 100% | 80% | 60% | 40% | 20% |
| 10° | 1.2 | 1.3 | 1.4 | 1.6 | 1.8 |
| 20° | 1.0 | 1.1 | 1.3 | 1.4 | 1.6 |
| 30° | 0.8 | 1.0 | 1.1 | 1.3 | 1.4 |
| 40° | 0.7 | 0.8 | 1.0 | 1.1 | 1.3 |
| 50° | 0.5 | 0.7 | 0.8 | 1.0 | 1.1 |

| Altitude [m] | Input Speed [RPM] | | | | |
|---|---|---|---|---|---|
| | 400 | 800 | 1000 | 1500 | 2000 |
| 0 | 1.2 | 1.1 | 1.1 | 1.0 | 0.7 |
| 500 | 1.2 | 1.1 | 1.1 | 1.0 | 0.7 |
| 1000 | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |
| 1500 | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |
| 2000 | 1.1 | 1.0 | 1.0 | 0.9 | 0.6 |

## $P_d$ - Power to be Dissipated [kW]
the power that a cooling system must dissipate if the power to be transmitted exceeds the gearbox's thermal power.

## $\eta_m$ - Mechanical Efficiency
The ratio between mechanical power output and input; normally considered equal to 0.97 ÷ 0.98 for each epicycloidal reduction stage in the gearbox, and equal to 0.94 ÷ 0.95 for bevel gear; the actual value depends on a number of factors including speed, torque, ratio, assembly position and lubrication.

## $T_2$ - Torque Transmitted [Nm]
this value represents torque continuously applied at a speed of $n_1$, at which the gearbox has a theoretical lifetime of 10000 h for gears, or 5000 h ($L_{h10}$ ) for the bearings in gear mechanisms.

## $T_{max}$ - Maximum Transmissible torque [Nm]
the maximum torque transmitted by the accessory supplied with the gearbox, if applicable. This value may limit the maximum transmissible torque of the gearbox.

## $T_{2max}$ - Maximum Torque [Nm]
the maximum admissible output torque, as a peak value or for brief periods of time (calculated at 90% Rs of the weakest component).
For drives with a high number of start-ups or inversions, appropriately reduced maximum torque values should be considered.
The value specified refers to the version with a splined female shaft (FS); different versions may have lower values.

## $T_b$ - Braking Torque [Nm]
the value of braking torque that may be conveyed statically by the negative brake.

## $n_1$ - Input Speed [RPM]
the speed on the fast side of the gearbox.

## $n_2$ - Output Speed [RPM]
the speed on the slow side of the gearbox.

## $n_{1max}$ - Maximum Speed [RPM]
the maximum input speed at the brake. For applications with higher values, contact Dinamic Oil's sales service to determine application compatibility.

## $i_e$ - Effective Reduction Ratio
the actual reduction ratio, meaning the ratio between the gearbox's input and output speeds.

## nxh - Duration Index [RPMxh]
the value of the product between speed and duration of theoretical lifetime in hours. This value is expressed as $n_2$xh when used with output speed, $n_1$xh with used with input speed.

**Duration Values Required for Different Applications**

| Application | Required Lifetime |
|---|---|
| Agricultural machinery | 300 - 3000 |
| Machines operated intermittently or for short periods of time (construction machines) | 3000 - 8000 |
| Machines operated intermittently or for short periods of time with high operational reliability (freight lifts) | 8000 - 12000 |
| Machines operated 8 hours a day but not all the time (various industrial machines, rotary mills) | 10000 - 25000 |
| Machines operated 8 hours a day all the time (various industrial machines, conveyor belts) | 20000 - 30000 |
| Machines operated continuously (rolling mills, textiles machines) | 40000 - 50000 |

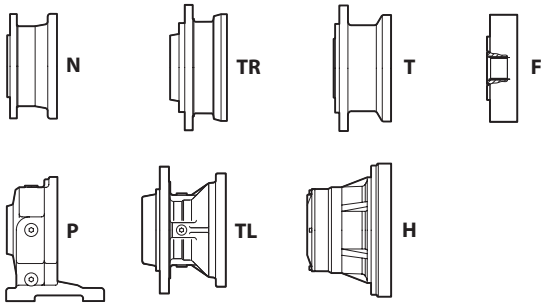
## $k_f$ - Correction Factor
the factor applied to calculate the theoretical lifetime of bearings with male shafts for values of nxh other than those shown in catalog diagrams. External load curves are calculated for all gearboxes as:
- $n_2$xh = 100000 for output supports
- $n_1$xh = 1500000 for input supports

## $L_{min}$ - Minimum Length of Torque Arm [mm]
the minimum length recommended for the torque arm, applied to pendular applications.

## Order code

| RA | 21 | 3 | P | S | 78.7 | |
|---|---|---|---|---|---|---|

### OUTPUT VERSION




### OUTPUT SHAFT

**S** = Male spline
**F** = Female spline
**C** = Cylindrical shaft
**K** = Extended cylindrical shaft
**E** = Hexagonal shaft
**Q** = Hollow female shaft
**FS** = Female spline
**FC** = Female cylindrical shaft
**U** = Female cylindrical shaft

### NUMBER OF STAGES

**1 - 2 - 3 - 4 - 5 - 6**

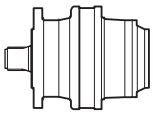
### GEARBOX FRAME SIZE

| RE - RA | RE - RA | GB - GBA | GB - GBA |
|---|---|---|---|
| **110** | **1520** | **12010** | **61000** |
| **210** | **2000** | **16000** | **85000** |
| **240** | **2520** | **21000** | **110000** |
| **310** | **3000** | **26000** | **130000** |
| **510** | **3510** | **31000** | GB |
| **610** | **4800** | **40000** | **150000** |
| **810** | **6000** | **45000** | **205000** |
| **1020** | **8000** | **53000** | **235000** |

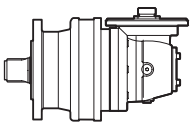
### REDUCTION RATIO

Please write the exact ratio as shown on the selection table

### EXECUTION



**RE - GB** = Linear



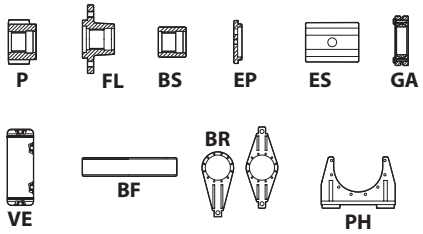
**RA - GBA** = Angular

### COMPOSITION

**/** = Standard
**L** = Light
**R** = Reinforced
**S** = Special

| ST | BB | B3 | 0 | BS |
|---|---|---|---|---|

## OUTPUT ACCESSOIRES

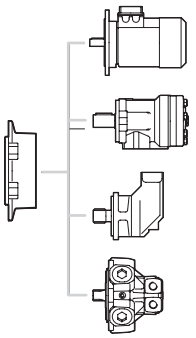



**P** = Pinion
**FL** = Flange
**BS** = Splined bushing
**EP** = End plate
**ES** = Hexagonal bushing
**GA** = Shrink disc
**VE** = Expansion tank
**BF** = Splined bar
**BR** = Torque arm
**PH** = Foot support

## RIGHT ANGLE POSITIONING

## MOUNTING POSITION

## MOTOR ADAPTER CONFIGURATION



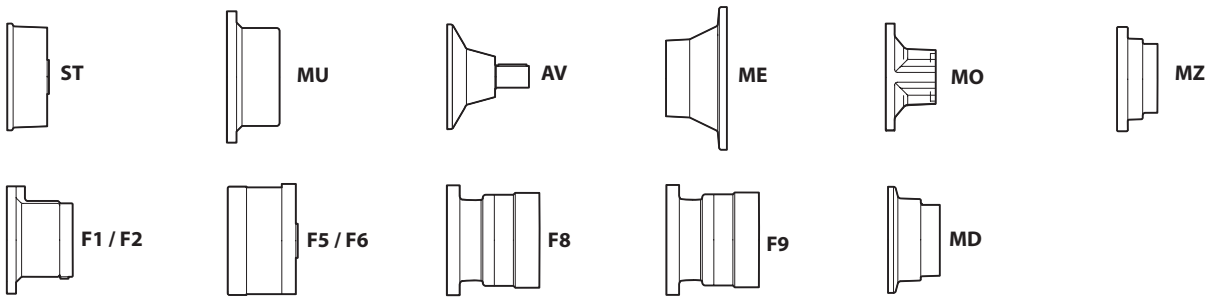
Electric motor

Orbit motor

Axial piston motor

Radial piston motor

## DIRECT INPUTS



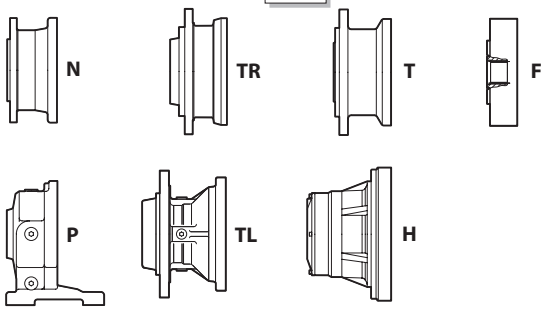

The example shows the ordering code for a right angle planetery gearbox frame 210, with 3 reduction stages a foot mounted output support and a male splined shaft, and 78.7 reduction ratio, with a "ST" input and "SAE B", 16/32 15 teeth motor adapter flange. Horizontal mounting position and standard right angle positioning, and a splined bushing output accessory.

## Codice d'ordinazione

| RA | 21 | 3 | P | S | 78.7 | |
|---|---|---|---|---|---|---|

### VERSIONE USCITA

G-2




### ALBERO IN USCITA

**S** = Scanalato maschio
**F** = Scanalato femmina
**C** = Cilindrico
**K** = Cilindrico lungo
**E** = Esagonale
**Q** = Giunto di attrito
**FS** = Femmina scanalato
**FC** = Femmina cilindrico
**U** = Femmina cilindrico

### NUMERO STADI DI RIDUZIONE

**1 - 2 - 3 - 4 - 5 - 6**

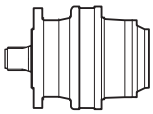
### GRANDEZZA RIDUTTORE

| RE - RA | RE - RA | GB - GBA | GB - GBA |
|---|---|---|---|
| **110** | **1520** | **12010** | **61000** |
| **210** | **2000** | **16000** | **85000** |
| **240** | **2520** | **21000** | **110000** |
| **310** | **3000** | **26000** | **130000** |
| **510** | **3510** | **31000** | GB |
| **610** | **4800** | **40000** | **150000** |
| **810** | **6000** | **45000** | **205000** |
| **1020** | **8000** | **53000** | **235000** |

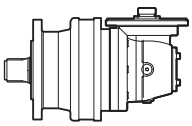
### RAPPORTO DI RIDUZIONE

Indicare il valore del rapporto (compreso virgola e decimale) riportato sulle pagine dei dati tecnici relative ad ogni grandezza

### ESECUZIONE



**RE - GB** = Lineare



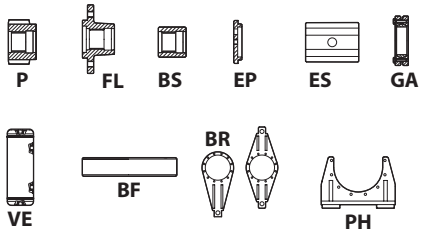
**RA - GBA** = Angolare

### COMPOSIZIONE

**/** = Standard
**L** = Light
**R** = Rinforzato
**S** = Speciale

| ST | BB | B3 | 0 | BS |
|---|---|---|---|---|

## ACCESSORI IN USCITA

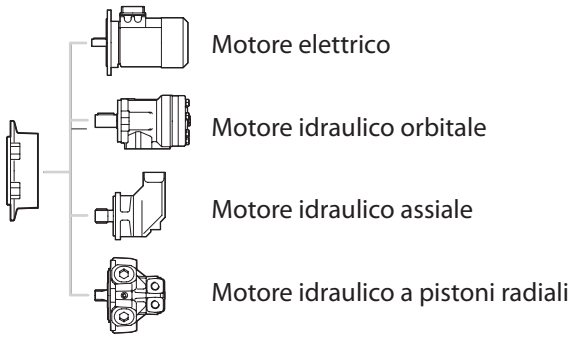



**P** = Pignone
**FL** = Flangia
**BS** = Boccola scanalata
**EP** = Fondello
**ES** = Manicotto esagonale
**GA** = Giunto di attrito
**VE** = Vaso di espansione
**BF** = Barra scanalata
**BR** = Braccio di reazione
**PH** = Piede

## ORIENTAMENTO RIDUTTORE ANGOLARE

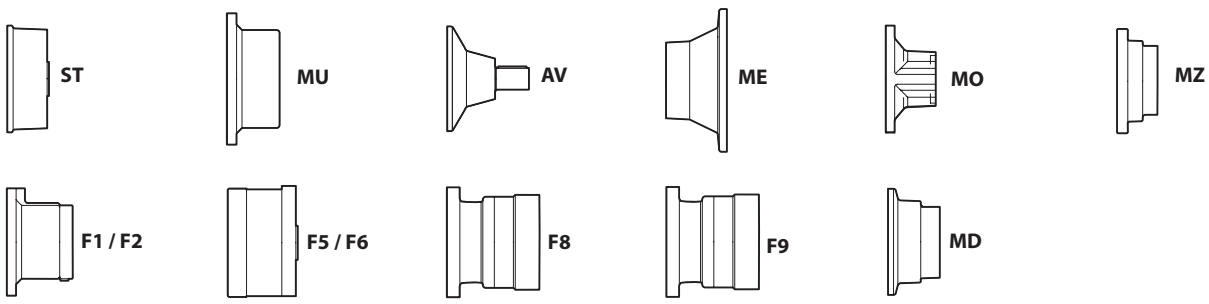
## POSIZIONE DI MONTAGGIO

## PREDISPOSIZIONE MOTORE



Motore elettrico
Motore idraulico orbitale
Motore idraulico assiale
Motore idraulico a pistoni radiali

## ENTRATE DIRETTE




Nell'esempio è illustrato il codice di ordinazione di un riduttore planetario angolare, grandezza 210, tre stadi di riduzione, versione in uscita con i piedi e albero scanalato, rapporto di riduzione 78.7, entrata standard, predisposizione per motore "SAE B" albero 16/32 z=15, posizione di montaggio del riduttore in uscita orizzontale, orientamento del riduttore angolare standard, boccola scanalata in uscita

# LEGAL NOTES

All information in this catalogue has been checked; in case of possible mistakes, we decline all responsibility.

Dinamic Oil reserves the right to amend the technical data of this catalogue without prior notice.

For all further information please contact Dinamic Oil S.p.A. Commercial Department.

# NOTE LEGALI

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