



REX

PLANETARY GEARBOXES

REX Complete line of precision planetary gearboxes ideal for use with **SUPER SAX**, **FAST-BACK** and **SAX 100**. For cycle and continuous operation.

STANDARD FEATURES

- ✓ Operating temperature - 30 °C+90°C (gearbox's temperature)
- ✓ Average bearings lifetime 10.000 h
- ✓ Noise level ≤ 70 dB
- ✓ Protection class IP65
- ✓ Life time lubrication



TORQUE RANGE / RATIOS

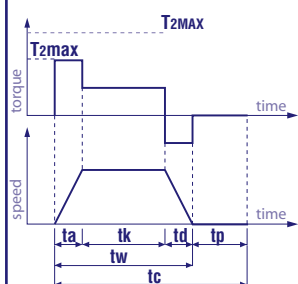
| SERIES | STAGE | I Reduction Ratios (PREFERRED ONES) | J1 Input Shaft Inertia | T2 N ¹⁾ Rated Out Torque | T2 MAX ²⁾ Acceleration Torque | T2pk ³⁾ | MAX Input Speed | F2R ⁴⁾ | F2A ⁵⁾ | BKLASH Output Shaft | | | | |
|---------|--------------------------------------|--|---|---|--|--------------------|-----------------------|-------------------|-------------------|---------------------------|------|-----------------|----------------|-------------|
| | | (Nm) | (Kg·m ² ·10 ⁻⁴) | (Nm) | (Nm) | (Nm) | (Rpm) | (N) | (N) | (Arcmin) | | | | |
| REX 34 | 1 | 4 / 6.25 / 8 | 0.0017 | 0.7 | 1 | 1.8 | 5000 | 150 | 70 | ≤ 15 | | | | |
| | 2 | 16 / 25 / 39.06 / 50 | 0.0011 | 1.5 | 2 | 3 | | | | | | | | |
| | 3 | 64 / 100 / 128 / 244.14 / 312.5 / 400 | 0.001 | 6 | 6.5 | 7 | | | | | | | | |
| REX 55 | 1 | 3 / 4 / 5 / 6 | 0.077 | 18 | 35 | 45 | 4000 | 560 | 130 | ≤ 15 ≤ 5 | | | | |
| | 2 | 9 / 12 / 15 / 16 / 20 / 24 / 30 / 36 | 0.06 | 20 | 35 | 60 | | | | | | | | |
| | 3 | 48 / 64 / 80 / 100 / 120 / 150 / 180 / 216 | 0.04 | 30 | 45 | 70 | | | | | | | | |
| REX 63 | 1 | 3 / 4 / 5 / 6 | 0.077 | 18 | 35 | 45 | 4000 | 690 | 170 | ≤ 15 ≤ 5 | | | | |
| | 2 | 9 / 12 / 16 / 20 / 24 / 30 / 36 | 0.06 | 20 | 35 | 60 | | | | | | | | |
| | 3 | 48 / 64 / 80 / 120 / 150 / 180 / 216 | 0.04 | 30 | 45 | 70 | | | | | | | | |
| REX 80 | 1 | 3 | 0.27 | 40 | 70 | 80 | 4000 | 1160 / 270° | 500 / 1250° | ≤ 10 ≤ 5 | | | | |
| | | 4 / 5 | 0.14 | 60 | 90 | 120 | | | | | | | | |
| | | 6 | 0.07 | 48 | 80 | 100 | | | | | | | | |
| | 2 | 9 / 12 | 0.19 | 40 | 70 | 80 | | | | | | | | |
| | | 16 / 20 / 24 / 30 / 36 | 0.1 | 60 | 100 | 150 | | | | | | | | |
| | | 48 | 0.15 | 80 | 105 | 170 | | | | | | | | |
| | 3 | 64 / 80 / 120 / 150 / 180 / 216 | 0.07 | 100 | 120 | 190 | | | | | | | | |
| | | 3 | 1.00 | 80 | 120 | 200 | | | | | 3000 | 1500 / 4500° | 700 / 1800° | ≤ 10 ≤ 5 |
| | | 4 / 5 | 0.55 | 110 | 330 | 450 | | | | | | | | |
| 6 | 0.3 | 190 | 250 | 350 | | | | | | | | | | |
| 2 | 9 / 10.5 | 0.85 | 80 | 200 | 300 | | | | | | | | | |
| | 12 / 14 | 0.6 | 140 | 200 | 300 | | | | | | | | | |
| | 16 / 20 / 24 / 30 | 0.4 | 180 | 350 | 480 | | | | | | | | | |
| 3 | 36 | 0.2 | 150 | 250 | 450 | | | | | | | | | |
| | 48 / 64 / 80 / 100 / 120 / 150 / 180 | 0.2 | 200 | 420 | 600 | | | | | | | | | |
| | 216 | 0.2 | 185 | 250 | 350 | | | | | | | | | |
| REX 130 | 1 | 3 | 3.2 | 200 | 300 | 500 | 3000 | 4600 | 2300 | ≤ 10 ≤ 5 | | | | |
| | | 4 | 2.2 | 300 | 400 | 700 | | | | | | | | |
| | | 5 | 1.2 | 220 | 300 | 500 | | | | | | | | |
| | | 6 | 0.85 | 150 | 200 | 280 | | | | | | | | |
| | 2 | 9 / 10.5 / 12 | 2.2 | 220 | 300 | 500 | | | | | | | | |
| | | 16 / 20 / 24 | 1.2 | 320 | 380 | 700 | | | | | | | | |
| | | 30 | 0.6 | 250 | 350 | 500 | | | | | | | | |
| | | 36 | 0.6 | 150 | 200 | 280 | | | | | | | | |
| | 3 | 48 / 64 | 1.7 | 370 | 400 | 700 | | | | | | | | |
| | | 80 | 1.0 | 300 | 400 | 500 | | | | | | | | |
| | | 120 / 150 / 180 / 216 | 0.6 | 190 | 300 | 380 | | | | | | | | |

4) Max radial-load in the middle of the output shaft at 100 Rpm output speed (10.000 h. bearing life expectancy)
 5) Max axial-load at shaft end at 100 Rpm output speed (10.000 h. bearing life expectancy)

• With oblique contact output bearings (optional)
 1) Nominal output torque for continuous operation (S1). Max gearbox T=90°C
 2) Max acceleration torque for cycle operation (S5)
 3) Peak output torque for emergency stop (1000 times max for lifetime)

QUICK SELECTION

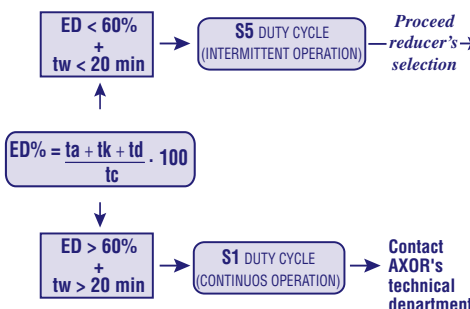
DUTY CYCLE DETERMINATION (ED)



T2max = max acc. torque required
 T2MAX = reducer max acc. torque

ta = acceleration time
 tk = continuous speed time
 td = deceleration time
 tp = pause
 tc = total cycle time
 tw = working time

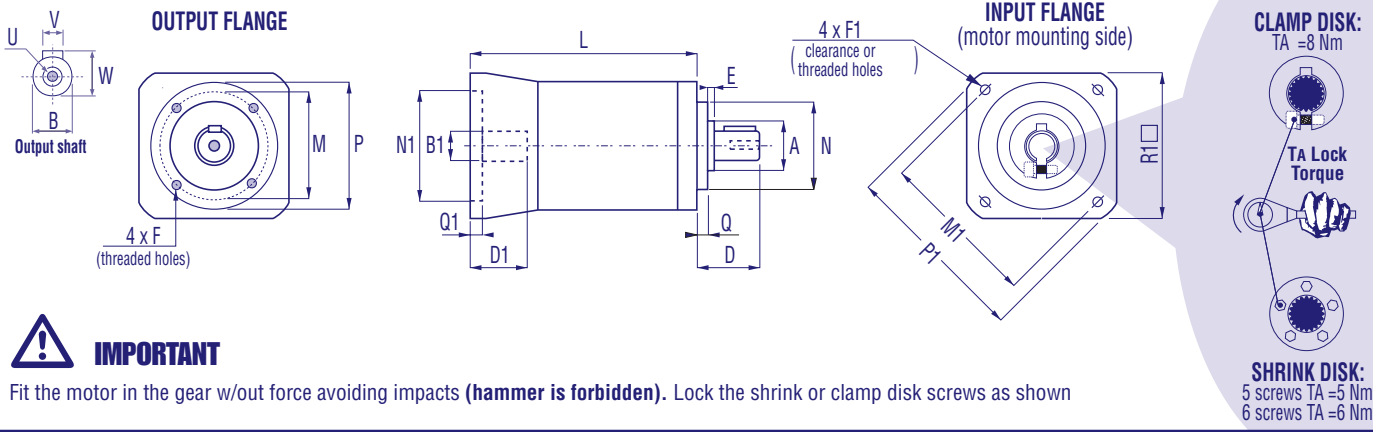
REDUCER SELECTION



- 1) T2max T2MAX
 - 2) T1 mot max = $\frac{T2max}{I}$
 - 3) T1 MOT MAX · I T2MAX
- I : reduction ratio
 T1 mot max : motor acc. torque required
 T1 MOT MAX : motor max torque (with drive coupling)

MECHANICAL DIMENSIONS

Drawings are not to scale (see quotations)



| OUTPUT FLANGE | | | | | | | | | | | | | | INPUT FLANGE | | | | | | | WT | | |
|---------------|-------|-----------------|-----|----|------|------|--------|---------|------|-----|----|----|-----|--------------|-----|-----|-----|-----|-----|------|------|------|------|
| REFERENCES | L | P \varnothing | A | B | D | Q | V | W | U | E | N | M | F | B1 | D1 | Q1 | N1 | M1 | F1 | R1 | | P1 | |
| SERIES | STAGE | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kg |
| REX 34 | 1 | 31 | 34 | — | 6 | 17 | 2.5 | — | — | — | 22 | 28 | M3 | NA* | NA* | NA* | NA* | NA* | NA* | — | ∅ 34 | 0.2 | |
| | 2 | 41 | | | | | | | | | | | | | | | | | | | | 0.25 | |
| | 3 | 51 | | | | | | | | | | | | | | | | | | | | 0.3 | |
| REX 55 | 1 | 73 | 55 | — | 12 | 25 | 2.5 | 4 x 16 | 13.5 | M4 | — | 32 | 40 | M5 | 9 | 25 | 3 | 40 | 63 | 4.5 | 55 | 74 | 0.6 |
| | 2 | 88 | | | | | | | | | | | | | | | | | | | | | 0.75 |
| | 3 | 103 | | | | | | | | | | | | | | | | | | | | | 0.9 |
| REX 63 | 1 | 83 | 63 | 14 | 36 | 3 | 5 x 20 | 16 | M5 | 3 | 40 | 52 | M5 | 11 | 23 | 4 | 60 | 90 | M5 | 75 | 100 | 1.3 | |
| | 2 | 98 | | | | | | | | | | | | | | | | | | | | 1.6 | |
| | 3 | 113 | | | | | | | | | | | | | | | | | | | | 1.9 | |
| REX 80 | 1 | 104 | 80 | 20 | 19 | 45.5 | 5 | 6 x 30 | 21.5 | M6 | 2 | 50 | 65 | M6 | 14 | 30 | 4 | 80 | 100 | 6.5 | 90 | 115 | 2.6 |
| | 2 | 127 | | | | | | | | | | | | | | | | | | | | | 3.4 |
| | 3 | 151 | | | | | | | | | | | | | | | | | | | | | 4.2 |
| REX 105 | 1 | 134 | 105 | 25 | 57.5 | 5 | 8 x 35 | 28 | M8 | 2.5 | 70 | 85 | M8 | 19 | 40 | 4 | 95 | 115 | 8.5 | 110 | 150 | 6 | |
| | 2 | 167 | | | | | | | | | | | | | | | | | | | | 8 | |
| | 3 | 201 | | | | | | | | | | | | | | | | | | | | 10 | |
| REX 130 | 1 | 158 | 130 | 52 | 32 | 70 | 7 | 10 x 50 | 35 | M10 | 8 | 80 | 110 | M12 | 24 | 50 | 4 | 130 | 165 | 11.5 | 140 | 188 | 11 |
| | 2 | 195 | | | | | | | | | | | | | | | | | | | | | 15 |
| | 3 | 231 | | | | | | | | | | | | | | | | | | | | | 19 |

* = The REX 34 gearbox is available only already coupled with SAX 117 Dc motor

ORDERING CODE:

REX 105 - 1 - 6 - 15 - 000D00X MV - 000C00X BB - NC

Example:

NAME: Planetary Gearboxes

SERIES: 34, 55, 63, 80, 105, 130

STAGE: 1, 2 or 3 Ex: 1=one stage

REDUCTION RATIO: Ex: 6=1:6 (see table on reverse)

TORSIONAL BACKLASH: 15 = 15 arcmin (std for REX 34,55,63)
10 = 10 arcmin (std for REX 80,105,130)
5 = 5 arcmin (opt)

INPUT SHAFT COUPLING:

MV = clamp disk with key (std)
CC = shrink disk (opt)
SL = spiral pin+Loctite (opt)
for REX 80, 105, 130, only
for REX 55, 63, only
std for REX 34

OUTPUT BALL BEARINGS:

BB = standard type
CO = oblique contact type
opt for REX 80, 105
std for REX 130

COUPLMENT:

NC = not coupled (std)
SC = coupled "S" (opt)
AC = coupled "A" (opt)

INPUT FLANGE & SHAFT: (motor mounting side)

000D00X

MOUNTING FLANGE:

000= standard (see above)
001÷499= IEC metric dimension
501÷999= Axor's internal code

MOUNTING HOLES:

D= B5 flange with thru holes (std)
C= B14 flange with threaded holes

SHAFT KEY:

x=with key (std)
w=without key

SHAFT DIAMETER:

00= standard (see above)
01÷49= IEC metric diameter
51÷99= Axor's internal code

OUTPUT FLANGE & SHAFT:

000C00X

MOUNTING FLANGE:

000= standard (see above)
001÷499= IEC metric dimension
501÷999= Axor's internal code

MOUNTING HOLES:

D= B5 flange with thru holes
C= B14 flange with threaded holes (std)

SHAFT KEY:

x=with key (std)
w=without key

SHAFT DIAMETER:

00= standard (see above)
01÷49= IEC metric diameter
51÷99= Axor's internal code

| SPECIAL FLANGES & SHAFTS OPTIONAL | B1 | D1 | Q1 | N1 | M1 | F1 | R1 | P1 |
|--------------------------------------|----|----|----|-----|-----|------|-----|-----|
| 000C14X (for REX 63) | 14 | 30 | 4 | 60 | 90 | M5 | 75 | 100 |
| 065D09X (for REX 80) | 9 | 25 | 4 | 50 | 65 | 5.5 | — | ∅80 |
| 115D19X (for REX 80) | 19 | 40 | 4 | 95 | 115 | 8.5 | 110 | 150 |
| 100D14X (for REX 105) | 14 | 30 | 4 | 80 | 100 | 6.5 | 90 | 115 |
| 165D24X (for REX 105) | 24 | 50 | 4 | 130 | 165 | 11.5 | 140 | 188 |
| 115D19X (for REX 130) | 19 | 50 | 4 | 95 | 115 | 8.5 | 110 | 150 |

| SPECIAL FLANGES & SHAFTS OPTIONAL | A | B | D | Q | V | W | U | E | N | M | F | P |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

