

# MODULAR SYSTEM

## Linear Actuator Type 1

flexible

robust

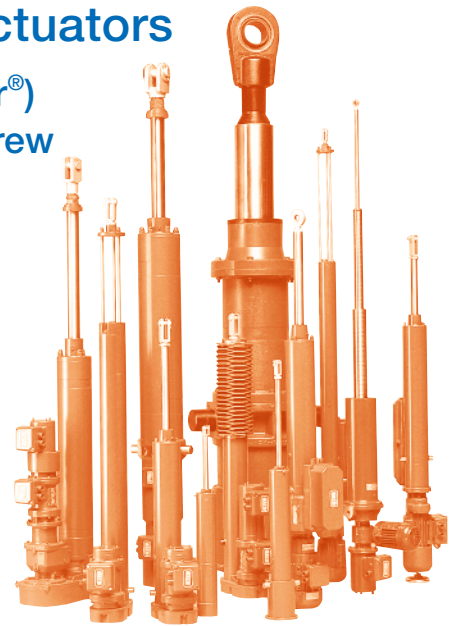
powerful

## RACO Electric Actuators

(RACO Elektrozyylinder®)  
Lead screw or ball screw

Size 3, 4, 5, 6, 7, 8

## Dimensions, Performance, Weights



## A “Strong Team”

The electric linear actuators of the modular system can be supplied in several drive configurations to suit your application.

- Design **A**  
inline - with RACO motor
- Design **M**  
inline - with helical geared RACO motor
- Design **C**  
parallel with RACO motor and timing belt for Design C and N
- Design **N**  
parallel with RACO motor helical gear and timing belt for Design C and N
- Design **T**  
angle with RACO motor and worm gearbox

The modular construction enables us to also fit commercial ventilated (or continuous ventilated) motors, steppers or servo-motors as required.

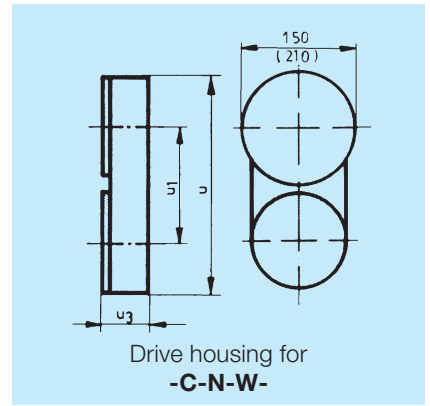
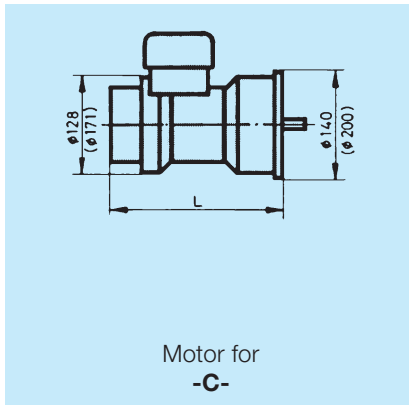
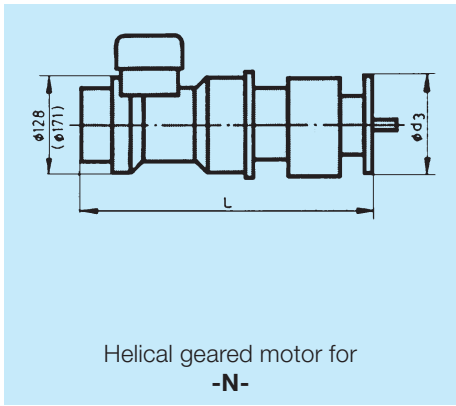
RACO electric linear actuators are available with either self-locking acme lead screw drive or with precision ground ball screw, the latter being especially suitable for higher duty ratings or where high repeatability is required

The modular system comprises:

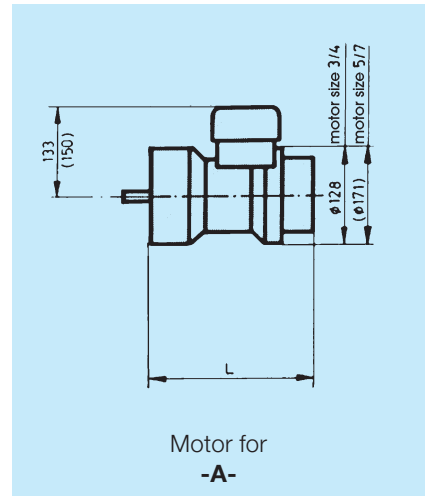
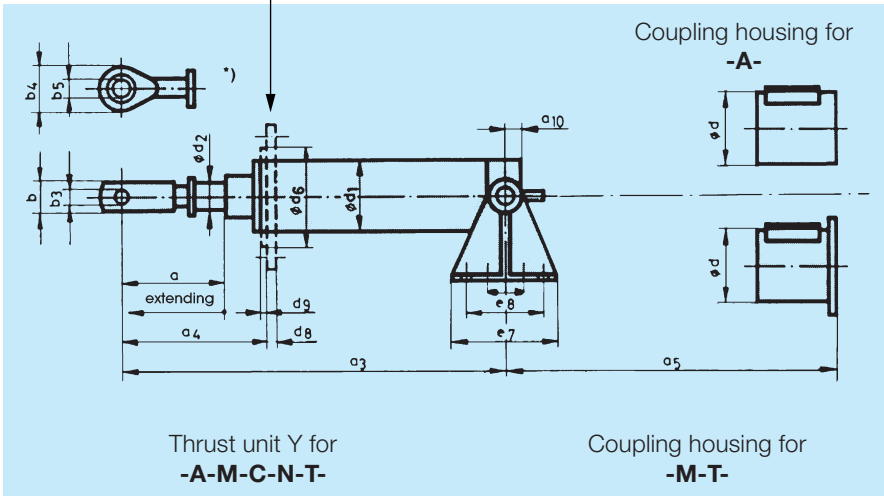
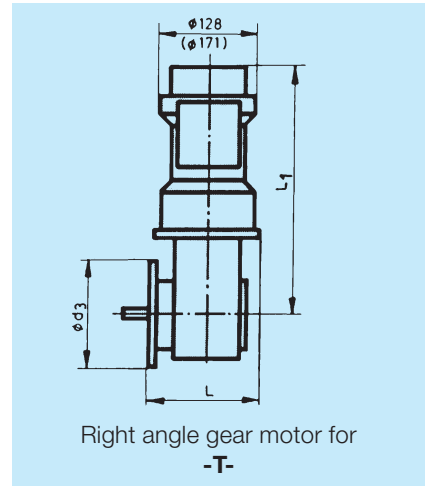
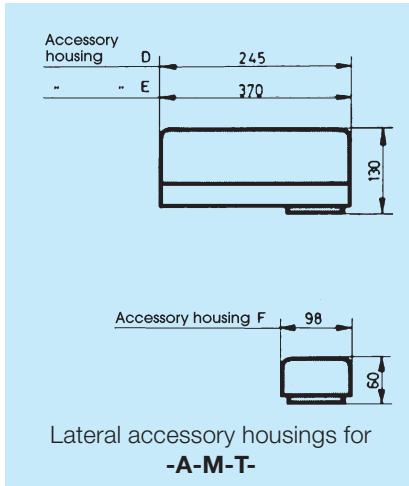
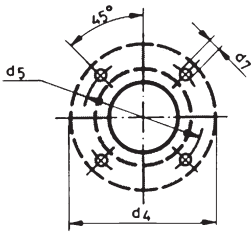
- thrust unit
- coupling housing
- motor with gearing or timing belt drive
- electro- magnetic brake
- handwheel
- control features accessory housing variants

**Standard Versions Size 3 (1 kN) – Size 8 (80 kN).**

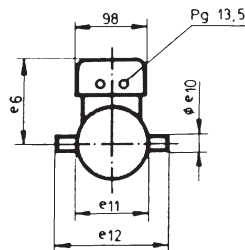
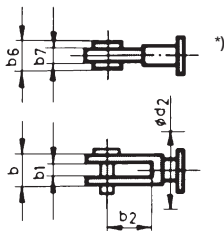
**For higher thrust versions up to 600 kN (Size 9 to 11) refer separate data sheets.**



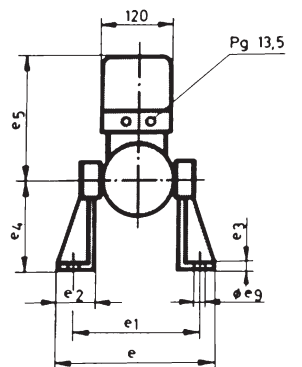
**Front flange mounting**  
 Actuator sizes 3,4,5,6 = 4 holes  
 Actuator sizes 7,8 = 8 holes



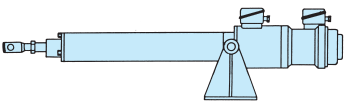
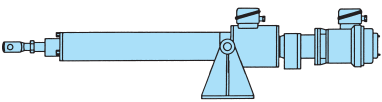
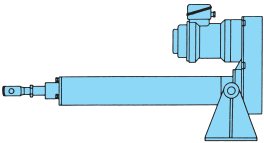
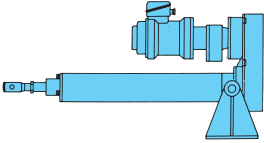
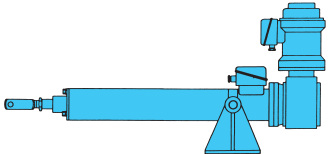
**\*) Rod eye**  
 front clevis optional  
 for sizes 3-7  
 (extra charge).

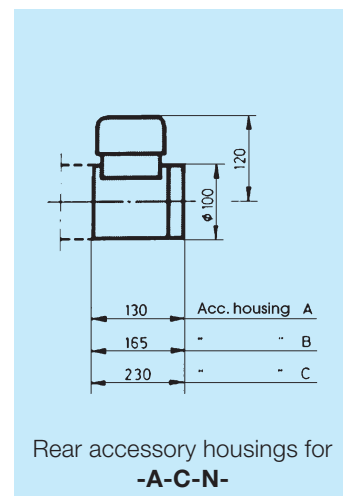
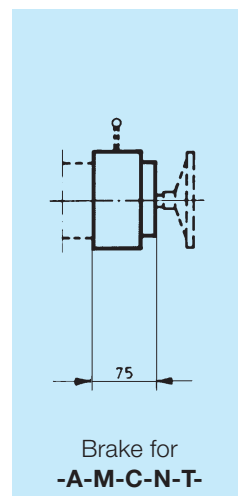
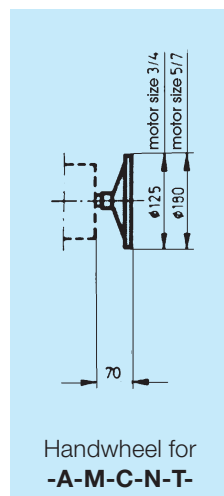
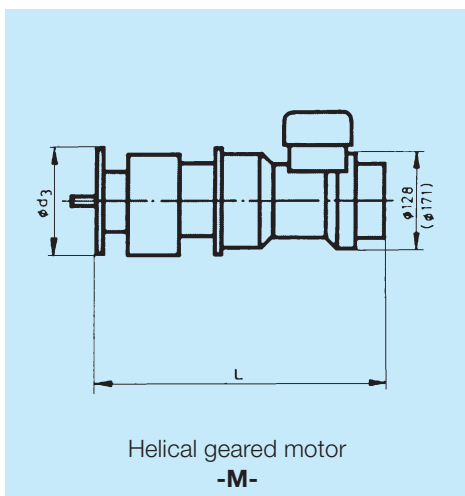


**Trunnion brackets**  
 for sizes 3-8 as option  
 (extra charge).



## Our 5 types of construction A - M - C - N - T

|  |  |  |
|--|--|--|
| <p>Electric Linear Actuator type <b>A</b><br/>with RACO direct drive motor</p>   | <p>Electric Linear Actuator type <b>M</b><br/>with RACO helical geared motor</p>  |  |
| <p>Electric Linear Actuator type <b>C</b><br/>with RACO direct drive motor</p>  | <p>Electric Linear Actuator type <b>N</b><br/>with RACO helical geared motor</p>  | <p>Electric Linear Actuator type <b>T</b><br/>with right angle gear motor</p>  |



### Examples for combinations of installation of accessories (consult factory for details)

| Please consider for actuator type C   | Accessory Housing | Accessories which can be installed  | Accessory Housing | Accessories which can be installed   | These accessories can be added to D and E                |
|---|-------------------|---|-------------------|--|--|
| 1. Has the actuator only an impulse emitter for RPM and no further accessories you have to add acc. housing A.  | A                 | 2 adjustable limit switches<br>4 adjustable limit switches<br>2 Potentiometer<br>2 Electronic position emitter 4 -20 mA DMU 1   | D                 | 2 adjustable limit switches<br>2 adjustable limit switches + pot<br>4 adjustable limit switches<br>2 Multi - turn pot  |  |
| 2. Has the actuator an impulse emitter for RPM and further accessories you have to add to the housings A,B or C an additional housing of 100 mm length. | B                 | 2 adjustable limit switches + pot<br>2 adjustable limit switches + tandem pot<br>2 Multi - turn pot   |                   |  | 1 Pulse transmitter for RPM or for pulse feedback signal |
|   | C                 | 4 adjustable limit switches + pot<br>4 adjustable limit switches + tandem pot<br>2 adjustable limit switches + DMU 1<br>4 adjustable limit switches + DMU 1<br>6 adjustable limit switches<br>6 adjustable limit switches + pot | E                 | 2 adj. limit switches + DMU 1<br>2 adj. limit switches + tandem pot<br>4 adj. limit switches + pot<br>4 adj. limit switches + tandem pot<br>4 adj. limit switches + DMU 1<br>6 adj. limit switches<br>6 adj. limit switches + pot<br>6 adj. limit switches + tandem pot<br>6 adj. limit switches + DMU 1 | 1 Blinking signal  |
| F can be combined with A, B or C  | F                 | 1 Pulse transmitter for RPM or for pulse feedback signal  |                   |  |  |

TECHNICAL DATA AND DIMENSIONS FOR ELECTRIC LINEAR ACTUATORS

ACME SCREWS

| THRUST UNIT |             |                | DRIVE MOTOR |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|-------------|-------------|----------------|-------------|--------------|----------------|-----|------------|----------------|-----|------------|-----------------|----------------|------------|-----------------|----------------|------------|----------------|-----|-------------------|------------|
| Size        | Stroke (mm) | a <sub>3</sub> | Thrust (kN) | Speed (mm/s) | Type A         |     |            | Type M         |     |            | Type C          |                |            | Type N          |                |            | Type T         |     |                   |            |
|             |             |                |             |              | a <sub>5</sub> | L** | Motor size | a <sub>5</sub> | L** | Motor size | a <sub>10</sub> | u <sub>3</sub> | Motor size | a <sub>10</sub> | u <sub>3</sub> | Motor size | a <sub>5</sub> | L   | L <sub>1</sub> ** | Motor size |
| 3           | 100         | 313            | 2,0         | 5            |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|             | 200         | 413            |             | 10           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|             | 300         | 513            |             | 15           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|             | 400         | 613            |             | 20           |                |     | 135        | 397            | 3   | 15         | 73              | 3              | 15         | 73              | 3              |            |                |     |                   |            |
|             | 500         | 713            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 600         | 813            |             | 1,0          | 40             | 135 | 225        | 3              |     |            | 15              | 73             | 3          |                 |                |            |                |     |                   |            |
|             | 800         | 1013           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1000        | 1213           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             |             |                |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 4           | 100         | 430            | 5,0         | 5            |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|             | 200         | 530            |             | 10           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|             | 300         | 630            |             | 15           |                |     | 135        | 397            | 4   |            |                 |                | 15         | 73              | 4              | 135        | 143            | 343 | 4                 |            |
|             | 400         | 730            |             | 30           |                |     | 135        | 397            | 4   | 15         | 73              | 4              | 15         | 73              | 4              |            |                |     |                   |            |
|             | 500         | 830            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 600         | 930            |             | 2,5          | 60             | 135 | 225        | 4              |     |            | 15              | 73             | 4          |                 |                |            |                |     |                   |            |
|             | 800         | 1130           |             |              | 120            | 135 | 225        | 4              |     |            | 15              | 73             | 4          |                 |                |            |                |     |                   |            |
|             | 1000        | 1330           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 5           | 100         | 455            | 10,0        | 5            |                |     | 135        | 397            | 3   |            |                 |                | 18         | 116             | 3              | 135        | 143            | 343 | 3                 |            |
|             | 200         | 555            |             | 10           |                |     | 135        | 397            | 4   |            |                 |                | 18         | 116             | 4              | 135        | 143            | 343 | 4                 |            |
|             | 300         | 655            |             | 15           |                |     | 135        | 397            | 4   |            |                 |                | 18         | 116             | 4              | 135        | 143            | 343 | 4                 |            |
|             | 400         | 755            |             | 30           |                |     | 135        | 536            | 5   | 18         | 116             | 5              | 18         | 116             | 5              |            |                |     |                   |            |
|             | 500         | 855            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 600         | 955            |             | 5,0          | 80             | 150 | 285        | 5              |     |            | 18              | 116            | 5          |                 |                |            |                |     |                   |            |
|             | 800         | 1155           |             |              | 160*           | 150 | 285        | 5              |     |            | 18              | 116            | 5          |                 |                |            |                |     |                   |            |
|             | 1000        | 1355           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 6           | 200         | 670            | 20,0        | 5            |                |     | 160        | 397            | 4   |            |                 |                | 27         | 116             | 4              | 175        | 158            | 371 | 4                 |            |
|             | 400         | 870            |             | 10           |                |     | 160        | 397            | 4   |            |                 |                | 27         | 116             | 4              | 175        | 158            | 371 | 4                 |            |
|             | 600         | 1070           |             | 15           |                |     | 160        | 536            | 5   |            |                 |                | 27         | 116             | 5              | 175        | 188            | 452 | 5                 |            |
|             | 800         | 1270           |             | 30           |                |     | 160        | 536            | 5   |            |                 |                | 27         | 116             | 5              |            |                |     |                   |            |
|             | 1000        | 1470           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1200        | 1670           | 10,0        | 60           |                |     |            |                |     | 27         | 116             | 5              |            |                 |                |            |                |     |                   |            |
|             | 1400        | 1870           |             | 100          | 160            | 285 | 6          |                |     | 27         | 116             | 6              |            |                 |                |            |                |     |                   |            |
|             | 1600        | 2070           |             | 160*         | 160            | 285 | 6          |                |     | 27         | 116             | 6              |            |                 |                |            |                |     |                   |            |
|             | 1800        | 2270           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 2000        | 2470           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 7           | 200         | 745            | 40,0        | 5            |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 215        | 188            | 452 | 5                 |            |
|             | 400         | 945            |             | 10           |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 215        | 188            | 452 | 5                 |            |
|             | 600         | 1145           |             | 15           |                |     | 225        | 565            | 6   |            |                 |                | 48         | 116             | 6              | 225        | 208            | 472 | 6                 |            |
|             | 800         | 1345           |             | 30           |                |     | 225        | 565            | 7   |            |                 |                | 48         | 116             | 7              |            |                |     |                   |            |
|             | 1000        | 1545           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1200        | 1745           | 20,0        | 60           |                |     | 225        | 565            | 7   | 48         | 116             | 6              | 48         | 116             | 7              |            |                |     |                   |            |
|             | 1400        | 1945           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1600        | 2145           |             | 15,0         | 120            | 215 | 285        | 7              |     |            | 48              | 116            | 7          |                 |                |            |                |     |                   |            |
|             | 1800        | 2345           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 2000        | 2545           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             |             |                |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 8           | 200         | 780            | 80,0        | 5            |                |     | 260        | 593            | 5   |            |                 |                | 90         | 155             | 5              | 270        | 234            | 513 | 5                 |            |
|             | 400         | 980            |             | 10           |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 270        | 234            | 513 | 6                 |            |
|             | 600         | 1180           |             | 15           |                |     | 260        | 593            | 7   |            |                 |                | 90         | 155             | 7              | 280        | 254            | 556 | 7                 |            |
|             | 800         | 1380           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1000        | 1580           |             | 60,0         | 5              |     |            | 260            | 593 | 5          |                 |                |            | 90              | 155            | 5          | 270            | 234 | 513               | 5          |
|             | 1200        | 1780           | 10          |              |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 270        | 234            | 513 | 6                 |            |
|             | 1400        | 1980           | 15          |              |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 280        | 254            | 556 | 6                 |            |
|             | 1600        | 2180           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             | 1800        | 2380           | 40,0        |              | 30             |     |            | 260            | 565 | 7          |                 |                |            | 90              | 155            | 7          | 270            | 234 | 513               | 7          |
|             | 2000        | 2580           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|             |             |                |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |

\*) Not self-locking, brake "L" recommended.

\*\*) Including end cover of 25mm, delete when accessory housings A, B or C are used.

TECHNICAL DATA AND DIMENSIONS FOR ELECTRIC LINEAR ACTUATORS

BALL SCREWS \*

| Size | THRUST UNIT |                | DRIVE MOTOR |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|------|-------------|----------------|-------------|--------------|----------------|-----|------------|----------------|-----|------------|-----------------|----------------|------------|-----------------|----------------|------------|----------------|-----|-------------------|------------|
|      | Stroke (mm) | a <sub>3</sub> | Thrust (kN) | Speed (mm/s) | Type A         |     |            | Type M         |     |            | Type C          |                |            | Type N          |                |            | Type T         |     |                   |            |
|      |             |                |             |              | a <sub>5</sub> | L** | Motor size | a <sub>5</sub> | L** | Motor size | a <sub>10</sub> | u <sub>3</sub> | Motor size | a <sub>10</sub> | u <sub>3</sub> | Motor size | a <sub>5</sub> | L   | L <sub>1</sub> ** | Motor size |
| 3    | 100         | 313            | 2,0         | 5            |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 200         | 413            |             | 10           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 300         | 513            |             | 20           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 400         | 613            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      |             |                |             | 1,0          | 40             |     |            | 135            | 397 | 3          |                 |                |            | 15              | 73             | 3          |                |     |                   |            |
|      |             |                |             |              | 80             |     |            |                |     |            | 15              | 73             | 3          |                 |                |            |                |     |                   |            |
|      |             |                |             |              | 120            | 135 | 225        | 3              |     |            |                 | 15             | 73         | 3               |                |            |                |     |                   |            |
| 4    | 100         | 430            | 5,0         | 5            |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 200         | 530            |             | 10           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 300         | 630            |             | 15           |                |     | 135        | 397            | 3   |            |                 |                | 15         | 73              | 3              | 135        | 143            | 343 | 3                 |            |
|      | 400         | 730            |             | 30           |                |     | 135        | 397            | 4   |            |                 |                | 15         | 73              | 4              |            |                |     |                   |            |
|      | 500         | 830            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 600         | 930            | 2,5         | 60           |                |     | 135        | 397            | 4   | 15         | 73              | 4              | 15         | 73              | 4              |            |                |     |                   |            |
|      | 800         | 1130           |             | 120          | 135            | 225 | 4          |                |     | 15         | 73              | 4              |            |                 |                |            |                |     |                   |            |
|      | 1000        | 1330           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 5    | 100         | 455            | 10,0        | 5            |                |     | 135        | 397            | 3   |            |                 |                | 18         | 116             | 3              | 135        | 143            | 343 | 3                 |            |
|      | 200         | 555            |             | 10           |                |     | 135        | 397            | 3   |            |                 |                | 18         | 116             | 3              | 135        | 143            | 343 | 3                 |            |
|      | 300         | 655            |             | 15           |                |     | 135        | 397            | 4   |            |                 |                | 18         | 116             | 4              | 135        | 143            | 343 | 4                 |            |
|      | 400         | 755            |             | 30           |                |     | 135        | 397            | 4   |            |                 |                | 18         | 116             | 4              | 135        | 143            | 343 | 4                 |            |
|      | 500         | 855            |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 600         | 955            | 5,0         | 80           |                |     | 135        | 397            | 4   | 18         | 116             | 5              | 18         | 116             | 4              |            |                |     |                   |            |
|      | 800         | 1155           |             | 160          | 150            | 285 | 5          |                |     | 18         | 116             | 5              |            |                 |                |            |                |     |                   |            |
|      | 1000        | 1355           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 6    | 200         | 670            | 20,0        | 5            |                |     | 160        | 397            | 3   |            |                 |                | 27         | 116             | 3              | 160        | 143            | 343 | 3                 |            |
|      | 400         | 870            |             | 10           |                |     | 160        | 397            | 4   |            |                 |                | 27         | 116             | 4              | 160        | 143            | 343 | 4                 |            |
|      | 600         | 1070           |             | 15           |                |     | 160        | 397            | 4   |            |                 |                | 27         | 116             | 4              | 160        | 143            | 343 | 4                 |            |
|      | 800         | 1270           |             | 30           |                |     | 160        | 536            | 5   |            |                 |                | 27         | 116             | 5              |            |                |     |                   |            |
|      | 1000        | 1470           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 1200        | 1670           | 10,0        | 60           |                |     | 160        | 536            | 5   |            |                 |                | 27         | 116             | 5              |            |                |     |                   |            |
|      | 1400        | 1870           |             | 100          |                |     | 160        | 536            | 5   | 27         | 116             | 5              | 27         | 116             | 5              |            |                |     |                   |            |
|      | 1600        | 2070           |             | 200          | 160            | 285 | 6          |                |     | 27         | 116             | 6              |            |                 |                |            |                |     |                   |            |
|      | 1800        | 2270           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 2000        | 2470           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 7    | 200         | 745            | 40,0        | 5            |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 225        | 208            | 472 | 5                 |            |
|      | 400         | 945            |             | 10           |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 225        | 208            | 472 | 5                 |            |
|      | 600         | 1145           |             | 15           |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 225        | 208            | 472 | 5                 |            |
|      | 800         | 1345           |             | 30           |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              | 225        | 208            | 472 | 5                 |            |
|      | 1000        | 1545           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 1200        | 1745           | 20,0        | 60           |                |     | 225        | 565            | 5   |            |                 |                | 48         | 116             | 5              |            |                |     |                   |            |
|      | 1400        | 1945           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 1600        | 2145           | 15,0        | 120          |                |     | 225        | 565            | 6   | 48         | 116             | 6              | 48         | 116             | 6              |            |                |     |                   |            |
|      | 1800        | 2345           |             | 160          |                |     |            |                |     | 48         | 116             | 7              |            |                 |                |            |                |     |                   |            |
|      | 2000        | 2545           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
| 8    | 200         | 780            | 80,0        | 5            |                |     | 260        | 593            | 5   |            |                 |                | 90         | 155             | 5              | 270        | 234            | 513 | 5                 |            |
|      | 400         | 980            |             | 15           |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 270        | 234            | 513 | 5                 |            |
|      | 600         | 1180           |             | 25           |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 270        | 234            | 513 | 6                 |            |
|      | 800         | 1380           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 1000        | 1580           | 60,0        | 5            |                |     | 260        | 593            | 5   |            |                 |                | 90         | 155             | 5              | 270        | 234            | 513 | 5                 |            |
|      | 1200        | 1780           |             | 15           |                |     | 260        | 593            | 5   |            |                 |                | 90         | 155             | 5              | 270        | 234            | 513 | 5                 |            |
|      | 1400        | 1980           |             | 25           |                |     | 260        | 593            | 6   |            |                 |                | 90         | 155             | 6              | 270        | 234            | 513 | 5                 |            |
|      | 1600        | 2180           | 40,0        | 60           |                |     | 260        | 565            | 6   |            |                 |                | 90         | 155             | 6              |            |                |     |                   |            |
|      | 1800        | 2380           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |
|      | 2000        | 2580           |             |              |                |     |            |                |     |            |                 |                |            |                 |                |            |                |     |                   |            |

\*) Not self-locking, brake required

\*\*) Including end cover of 25mm, delete when accessory housings A, B or C are used.

**MOTOR CAPACITIES AND FULL LOAD CURRENTS (3 X 400 V, 50 Hz)**
**ACME SCREW ACTUATORS**

| Size     | Thrust<br>(kN) | Speed<br>(mm/s) | Type A             |               |               | Type M             |               |               | Type C             |               |               | Type N             |               |               | Type T             |               |               |
|----------|----------------|-----------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|
|          |                |                 | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) |
| <b>3</b> | 2,0            | 5               |                    |               |               | 8 : 1              | 0,06          | 0,2           |                    |               |               | 8 : 1              | 0,06          | 0,2           | 8 : 1              | 0,12          | 0,3           |
|          | 2,0            | 10              |                    |               |               | 4 : 1              | 0,12          | 0,3           |                    |               |               | 4 : 1              | 0,12          | 0,3           | 8 : 1**            | 0,12          | 0,3           |
|          | 2,0            | 15              |                    |               |               | 2,5 : 1            | 0,2           | 0,4           |                    |               |               | 2,5 : 1            | 0,2           | 0,4           | 5 : 1**            | 0,2           | 0,4           |
|          | 2,0            | 20              |                    |               |               | 2 : 1              | 0,3           | 0,6           | 2 : 1              | 0,3           | 0,6           | 2 : 1              | 0,3           | 0,6           |                    |               |               |
|          | 1,0            | 40              | 1 : 1              | 0,3           | 0,6           |                    |               |               | 1 : 1              | 0,3           | 0,6           |                    |               |               |                    |               |               |
| <b>4</b> | 5,0            | 5               |                    |               |               | 12 : 1             | 0,12          | 0,3           |                    |               |               | 12 : 1             | 0,12          | 0,3           | 12 : 1             | 0,12          | 0,3           |
|          | 5,0            | 10              |                    |               |               | 6 : 1              | 0,3           | 0,6           |                    |               |               | 6 : 1              | 0,3           | 0,6           | 6 : 1              | 0,3           | 0,6           |
|          | 5,0            | 15              |                    |               |               | 4 : 1              | 0,4           | 0,8           |                    |               |               | 4 : 1              | 0,4           | 0,8           | 8 : 1              | 0,4**         | 0,7           |
|          | 5,0            | 30              |                    |               |               | 2 : 1              | 0,7           | 1,4           | 2 : 1              | 0,7           | 1,4           | 2 : 1              | 0,7           | 1,4           |                    |               |               |
|          | 2,5            | 60              | 1 : 1              | 0,7           | 1,4           |                    |               |               | 1 : 1              | 0,7           | 1,4           |                    |               |               |                    |               |               |
|          | 120            | 1 : 1**         | 1,4                | 2,4           |               |                    |               | 1 : 1**       | 1,4                | 2,4           |               |                    |               |               |                    |               |               |
| <b>5</b> | 10,0           | 5               |                    |               |               | 16 : 1             | 0,3           | 0,6           |                    |               |               | 16 : 1             | 0,3           | 0,6           | 16 : 1             | 0,3           | 0,6           |
|          | 10,0           | 10              |                    |               |               | 8 : 1              | 0,7           | 1             |                    |               |               | 8 : 1              | 0,7           | 1             | 8 : 1              | 0,7           | 1             |
|          | 10,0           | 15              |                    |               |               | 5 : 1              | 1,1           | 2             |                    |               |               | 5 : 1              | 1,1           | 2             | 5 : 1              | 1,1           | 2             |
|          | 10,0           | 30              |                    |               |               | 2,5 : 1            | 1,7           | 3,5           | 2,5 : 1            | 1,7           | 3,5           | 2,5 : 1            | 1,7           | 3,5           |                    |               |               |
|          | 5,0            | 80              | 1 : 1              | 2,0           | 4             |                    |               |               | 1 : 1              | 2,0           | 4             |                    |               |               |                    |               |               |
|          | 160            | 1 : 1*          | 2,4                | 4,8           |               |                    |               | 1 : 1*        | 2,4                | 4,8           |               |                    |               |               |                    |               |               |
| <b>6</b> | 20,0           | 5               |                    |               |               | 20 : 1             | 0,7           | 1             |                    |               |               | 20 : 1             | 0,7           | 1             | 20 : 1             | 0,7           | 1             |
|          | 20,0           | 10              |                    |               |               | 10 : 1             | 1,1           | 2             |                    |               |               | 10 : 1             | 1,1           | 2             | 10 : 1             | 1,1           | 2             |
|          | 20,0           | 15              |                    |               |               | 6,5 : 1            | 1,7           | 3,5           |                    |               |               | 6,5 : 1            | 1,7           | 3,5           | 6,5 : 1            | 1,7           | 3,5           |
|          | 20,0           | 30              |                    |               |               | 3 : 1              | 4,0           | 8             |                    |               |               | 3 : 1              | 4,0           | 8             |                    |               |               |
|          | 10,0           | 60              |                    |               |               |                    |               |               | 1,5 : 1            | 4,0           | 6             |                    |               |               |                    |               |               |
|          | 10,0           | 100             | 1 : 1              | 4,8           | 9             |                    |               |               | 1 : 1              | 4,8           | 9             |                    |               |               |                    |               |               |
|          | 160            | 1 : 1*          | 5,7                | 11            |               |                    |               | 1 : 1*        | 5,7                | 11            |               |                    |               |               |                    |               |               |
| <b>7</b> | 40,0           | 5               |                    |               |               | 24 : 1             | 1,7           | 3,5           |                    |               |               | 24 : 1             | 1,7           | 3,5           | 24 : 1             | 1,7           | 3,5           |
|          | 40,0           | 10              |                    |               |               | 12 : 1             | 2,4           | 5             |                    |               |               | 12 : 1             | 2,4           | 5             | 12 : 1             | 2,4           | 5             |
|          | 40,0           | 15              |                    |               |               | 8 : 1              | 4,0           | 8             |                    |               |               | 8 : 1              | 4,0           | 8             | 8 : 1              | 4,0           | 8             |
|          | 40,0           | 30              |                    |               |               | 4 : 1              | 7             | 14            |                    |               |               | 4 : 1              | 7             | 14            |                    |               |               |
|          | 20,0           | 60              |                    |               |               | 2 : 1              | 7             | 14            | 2 : 1              | 5,7           | 11            | 2 : 1              | 7             | 14            |                    |               |               |
|          | 15,0           | 120             | 1 : 1              | 8,5           | 19            |                    |               |               | 1 : 1              | 8,5           | 19            |                    |               |               |                    |               |               |
| <b>8</b> | 80,0           | 5               |                    |               |               | 40 : 1             | 2,4           | 5             |                    |               |               | 40 : 1             | 2,4           | 5             | 40 : 1             | 3,0           | 6             |
|          | 80,0           | 10              |                    |               |               | 20 : 1             | 4,8           | 10            |                    |               |               | 20 : 1             | 4,8           | 10            | 20 : 1             | 5,7           | 11            |
|          | 80,0           | 15              |                    |               |               | 14 : 1             | 7             | 14            |                    |               |               | 13 : 1             | 7             | 14            | 13 : 1             | 7             | 14            |
|          | 60,0           | 5               |                    |               |               | 40 : 1             | 2,0           | 4             |                    |               |               | 40 : 1             | 2,0           | 4             | 40 : 1             | 3,0           | 6             |
|          | 60,0           | 10              |                    |               |               | 20 : 1             | 4,0           | 8             |                    |               |               | 20 : 1             | 4,0           | 8             | 20 : 1             | 4,0           | 8             |
|          | 60,0           | 15              |                    |               |               | 14 : 1             | 5,7           | 11            |                    |               |               | 14 : 1             | 5,7           | 11            | 14 : 1             | 5,7           | 11            |
|          | 40,0           | 30              |                    |               |               | 7 : 1              | 7             | 14            |                    |               |               | 7 : 1              | 7             | 14            | 7 : 1              | 7             | 14            |

\*) Not self-locking, brake "L" recommended

\*\*) 3000 1/min, otherwise 1500 1/min motors

Higher thrusts, lower or higher speeds  
and longer strokes are available,  
depending on application.

Consult factory for details.

**MOTOR CAPACITIES AND FULL LOAD CURRENTS (3 X 400 V, 50 Hz)**
**BALL SCREW ACTUATORS**

| Size | Thrust<br>(kN) | Speed<br>ca.<br>(mm/s) | Type A             |               |               | Type M             |               |               | Type C             |               |               | Type N             |               |               | Type T             |               |               |
|------|----------------|------------------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|
|      |                |                        | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) | Ratio<br>(approx.) | Motor<br>(KW) | FLA<br>(Amps) |
| 3    | 2,0            | 5                      |                    |               |               | 24 : 1             | 0,04          | 0,1           |                    |               |               | 24 : 1             | 0,04          | 0,1           | 24 : 1             | 0,04          | 0,1           |
|      | 2,0            | 10                     |                    |               |               | 12 : 1             | 0,06          | 0,2           |                    |               |               | 12 : 1             | 0,06          | 0,2           | 12 : 1             | 0,06          | 0,2           |
|      | 2,0            | 20                     |                    |               |               | 6 : 1              | 0,12          | 0,3           |                    |               |               | 6 : 1              | 0,12          | 0,3           | 6 : 1              | 0,12          | 0,3           |
|      | 1,0            | 40                     |                    |               |               | 3 : 1              | 0,12          | 0,3           |                    |               |               | 3 : 1              | 0,12          | 0,3           |                    |               |               |
|      | 1,0            | 80                     |                    |               |               |                    |               |               | 1,5 : 1            | 0,2           | 0,4           |                    |               |               |                    |               |               |
|      | 1,0            | 120                    | 1 : 1              | 0,3           | 0,6           |                    |               |               | 1 : 1              | 0,3           | 0,6           |                    |               |               |                    |               |               |
| 4    | 5,0            | 5                      |                    |               |               | 24 : 1             | 0,06          | 0,2           |                    |               |               | 24 : 1             | 0,06          | 0,2           | 24 : 1             | 0,12          | 0,3           |
|      | 5,0            | 10                     |                    |               |               | 12 : 1             | 0,12          | 0,3           |                    |               |               | 12 : 1             | 0,12          | 0,3           | 12 : 1             | 0,12          | 0,3           |
|      | 5,0            | 15                     |                    |               |               | 8 : 1              | 0,2           | 0,4           |                    |               |               | 8 : 1              | 0,2           | 0,4           | 8 : 1              | 0,2           | 0,4           |
|      | 5,0            | 30                     |                    |               |               | 4 : 1              | 0,4           | 0,8           |                    |               |               | 4 : 1              | 0,4           | 0,4           |                    |               |               |
|      | 2,5            | 60                     |                    |               |               | 2 : 1              | 0,4           | 0,8           | 2 : 1              | 0,4           | 0,8           | 2 : 1              | 0,4           | 0,4           |                    |               |               |
|      | 2,5            | 120                    | 1 : 1              | 0,7           | 1,4           |                    |               |               | 1 : 1              | 0,7           | 1,4           |                    |               |               |                    |               |               |
| 5    | 10,0           | 5                      |                    |               |               | 32 : 1             | 0,12          | 0,3           |                    |               |               | 32 : 1             | 0,12          | 0,3           | 32 : 1             | 0,2           | 0,4           |
|      | 10,0           | 10                     |                    |               |               | 16 : 1             | 0,3           | 0,6           |                    |               |               | 16 : 1             | 0,3           | 0,6           | 16 : 1             | 0,3           | 0,6           |
|      | 10,0           | 15                     |                    |               |               | 10 : 1             | 0,4           | 0,8           |                    |               |               | 10 : 1             | 0,4           | 0,8           | 10 : 1             | 0,4           | 0,8           |
|      | 10,0           | 30                     |                    |               |               | 5 : 1              | 0,7           | 1,4           |                    |               |               | 5 : 1              | 0,7           | 1,4           | 5 : 1              | 0,7           | 1,4           |
|      | 5,0            | 80                     |                    |               |               | 2 : 1              | 1,1           | 2             | 2 : 1              | 1,1           | 2             | 2 : 1              | 1,1           | 2             |                    |               |               |
|      | 5,0            | 160                    | 1 : 1              | 2,0           | 4             |                    |               |               | 1 : 1              | 2,0           | 4             |                    |               |               |                    |               |               |
| 6    | 20,0           | 5                      |                    |               |               | 40 : 1             | 0,3           | 0,6           |                    |               |               | 40 : 1             | 0,3           | 0,6           | 40 : 1             | 0,3           | 0,6           |
|      | 20,0           | 10                     |                    |               |               | 20 : 1             | 0,7           | 1,4           |                    |               |               | 20 : 1             | 0,7           | 1,4           | 20 : 1             | 0,7           | 1,4           |
|      | 20,0           | 15                     |                    |               |               | 13 : 1             | 1,1           | 2             |                    |               |               | 13 : 1             | 1,1           | 2             | 13 : 1             | 1,1           | 1,4           |
|      | 20,0           | 30                     |                    |               |               | 7 : 1              | 1,7           | 3,5           |                    |               |               | 7 : 1              | 1,7           | 3,5           |                    |               |               |
|      | 10,0           | 60                     |                    |               |               | 3 : 1              | 1,7           | 3,5           |                    |               |               | 3 : 1              | 1,7           | 3,5           |                    |               |               |
|      | 10,0           | 100                    |                    |               |               | 2 : 1              | 2,4           | 5             | 2 : 1              | 2,4           | 5             | 2 : 1              | 2,4           | 5             |                    |               |               |
|      | 10,0           | 200                    | 1 : 1              | 4,8           | 10            |                    |               |               | 1 : 1              | 4,8           | 10            |                    |               |               |                    |               |               |
| 7    | 40,0           | 5                      |                    |               |               | 48 : 1             | 1,1           | 2             |                    |               |               | 48 : 1             | 1,1           | 2             | 48 : 1             | 1,1           | 2             |
|      | 40,0           | 10                     |                    |               |               | 24 : 1             | 1,1           | 2             |                    |               |               | 24 : 1             | 1,1           | 2             | 24 : 1             | 1,7           | 3,5           |
|      | 40,0           | 15                     |                    |               |               | 16 : 1             | 1,7           | 3,5           |                    |               |               | 16 : 1             | 1,7           | 3,5           | 16 : 1             | 2,0           | 4             |
|      | 40,0           | 30                     |                    |               |               | 8 : 1              | 3,0           | 6             |                    |               |               | 8 : 1              | 3,0           | 6             | 8 : 1              | 3,0           | 6             |
|      | 20,0           | 60                     |                    |               |               | 4 : 1              | 3,0           | 6             |                    |               |               | 4 : 1              | 3,0           | 6             |                    |               |               |
|      | 15,0           | 120                    |                    |               |               | 2 : 1              | 4,8           | 9,5           | 2 : 1              | 4,8           | 9,5           | 2 : 1              | 4,8           | 9,5           |                    |               |               |
|      | 15,0           | 160                    |                    |               |               |                    |               |               | 1,5 : 1            | 5,7           | 11            |                    |               |               |                    |               |               |
| 8    | 80,0           | 5                      |                    |               |               | 64 : 1             | 1,7           | 3,5           |                    |               |               | 64 : 1             | 1,7           | 3,5           | 64 : 1             | 1,7           | 3,5           |
|      | 80,0           | 15                     |                    |               |               | 22 : 1             | 4,0           | 8             |                    |               |               | 22 : 1             | 4,0           | 8             | 22 : 1             | 4,0           | 8             |
|      | 80,0           | 25                     |                    |               |               | 13 : 1             | 5,7           | 11            |                    |               |               | 13 : 1             | 5,7           | 11            | 13 : 1             | 5,7           | 11            |
|      | 60,0           | 5                      |                    |               |               | 64 : 1             | 1,1           | 2             |                    |               |               | 64 : 1             | 1,1           | 2             | 64 : 1             | 1,7           | 3,5           |
|      | 60,0           | 15                     |                    |               |               | 22 : 1             | 2,4           | 5             |                    |               |               | 22 : 1             | 2,4           | 5             | 22 : 1             | 3,0           | 6             |
|      | 60,0           | 25                     |                    |               |               | 13 : 1             | 4,8           | 10            |                    |               |               | 13 : 1             | 4,8           | 10            | 13 : 1             | 4,8           | 10            |
|      | 40,0           | 60                     |                    |               |               | 5 : 1              | 5,7           | 11            |                    |               |               | 5 : 1              | 5,7           | 11            |                    |               |               |

Not self-locking, brake "L" recommended.

If the actuator is provided to run into an end position automatically in case of a power failure it is necessary to have brake "B".

Higher thrusts, lower or higher speeds and longer strokes are available, depending on application.

Consult factory for details.

