

## Linear Unit QME- standard version

By using Linear Unit QME from Rollco you save both time and money. The units are designed to fulfil the need of an easy to mount unit for medium precision requirements. The units are ready to mount linear tables guided with linear ball bearings on hardened shafts and driven by ball- or lead-screw. There is a wide variety of executions available for quick delivery from our workshop.

Selectable standard options are:

- Bellows
- Hand wheel
- Screw locking
- Mechanical position counter
- Left+Right drive units
- Magnetic end position switches

For higher level of corrosion resistance, low/high temperature versions, other screw-leads or types, customized machining of the drive- and mounting-interfaces, contact Rollco.

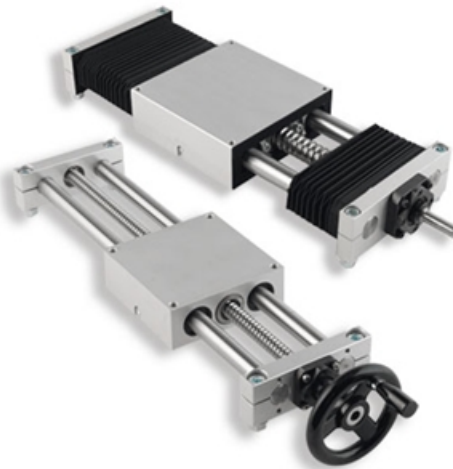
### Characteristics

- Linear ball bearings used for lowest friction and minimal and persistent play.
- Low backlash ball screw, optional with reduced backlash or backlash eliminated by light preload.
- Customized mounting flange for motor and/or customized end-machining of the screw shaft available.
- Corrosion resistant version as option.

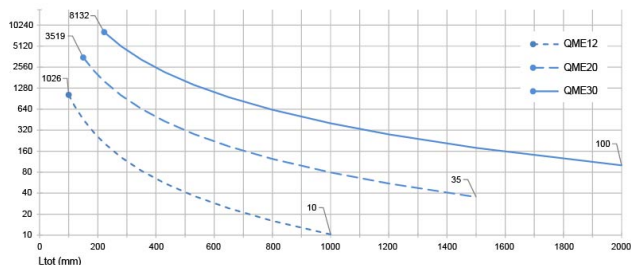
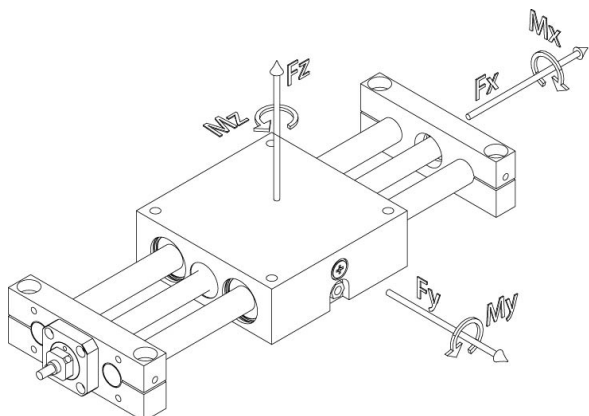
Max Ltot: QME12: 1000 mm, QME20: 1500 mm, QME30: 2000 mm

Dimensions of Drive ends refer to Standard version drawing.

All dimensions in mm. Drive ends



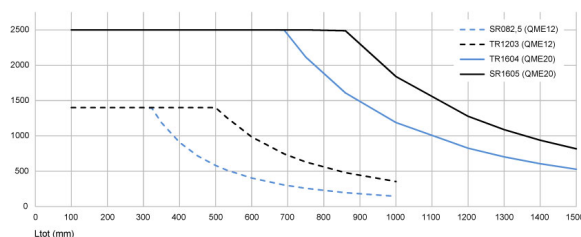
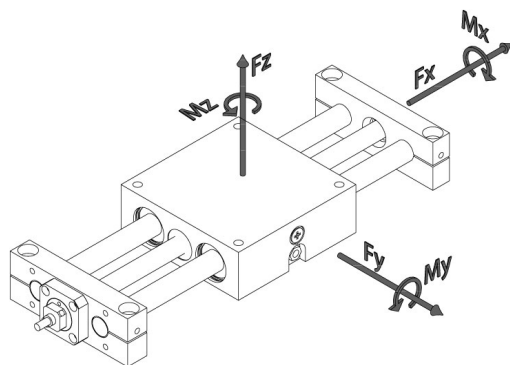
## General Data



\* All capacity values are theoretical maximal values without any safety factor.

Permissible load depends on desired life time and/or permissible deflection of the shafts. For motor driven units in automation applications, a dynamic safety factor of at least 5 is recommended.

\* Permissible load based on a shaft deflection of 1/1000 of Ltot. For long units, actual load may need to be reduced to achieve a deflection acceptable for the application.



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Permissible load depends on desired life time and/or permissible deflection of the shafts. For motor driven units in automation applications, a dynamic safety factor of at least 5 is recommended.

\* Permissible loads above will be limited for long units according to diagram 2. The dynamic capacity (Ca) is used for life time calculations. Ca is not defined for TR-screws and they can not be life time calculated.

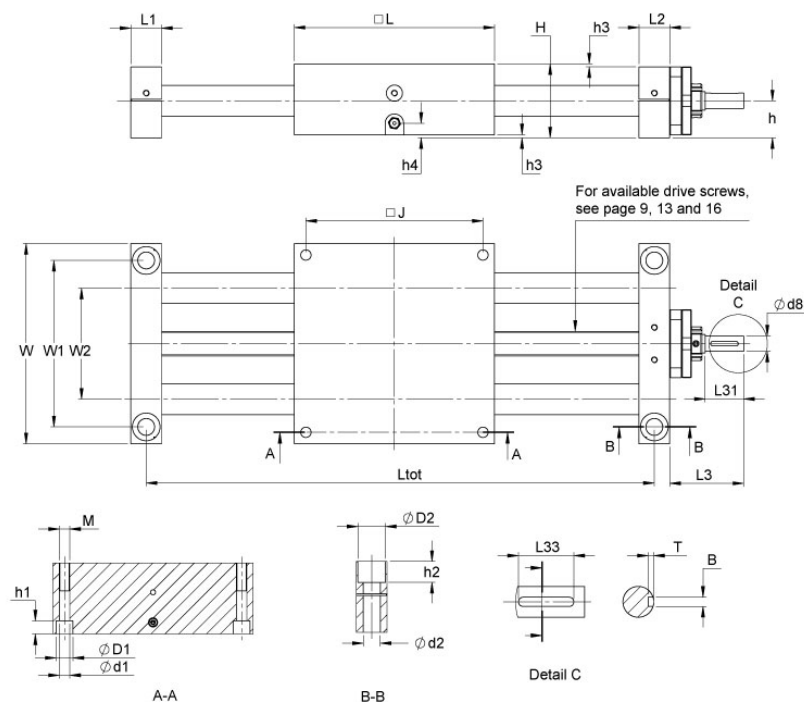
| Designation      | Screw Type                  | Static Load Capacity Fz (N) | Dynamic Load Capacity Fz (N) | Static Load Capacity Fy (Nm) | Dynamic Load Capacity Fy (Nm) |
|------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------------------|
| <b>QME 12</b>    | SR082,5                     | 3160                        | 2080                         | 3160                         | 2080                          |
| <b>QME 12-TR</b> | TR1203                      | 3160                        | 2080                         | 3160                         | 2080                          |
| <b>QME 20</b>    | SR1605                      | 5600                        | 3520                         | 5600                         | 3520                          |
| <b>QME 20-TR</b> | TR1604                      | 5600                        | 3520                         | 5600                         | 3520                          |
| <b>QME 30</b>    | SR/SL3205 / SR3210 / SR3220 | 11200                       | 6400                         | 11200                        | 6400                          |
| <b>QME 30-TR</b> | TR3006                      | 11200                       | 6400                         | 11200                        | 6400                          |

| Designation      | Static Load Capacity Mx (Nm) | Dynamic Load Capacity Mx (Nm) | Static Load Capacity My (Nm) | Dynamic Load Capacity My (Nm) | Static Load Capacity Mz (Nm) | Dynamic Load Capacity Mz (Nm) |
|------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
| <b>QME 12</b>    | 71                           | 47                            | 74                           | 47                            | 74                           | 49                            |
| <b>QME 12-TR</b> | 71                           | 47                            | 74                           | 47                            | 74                           | 49                            |
| <b>QME 20</b>    | 202                          | 127                           | 216                          | 127                           | 216                          | 136                           |
| <b>QME 20-TR</b> | 202                          | 127                           | 216                          | 127                           | 216                          | 136                           |
| <b>QME 30</b>    | 728                          | 416                           | 678                          | 416                           | 678                          | 387                           |
| <b>QME 30-TR</b> | 728                          | 416                           | 678                          | 416                           | 678                          | 387                           |

## General Data

| Designation | Dynamic Capacity Ca (N) | Permissible Fx (N) |
|-------------|-------------------------|--------------------|
| QME 12      | 2030                    | 1400               |
| QME 12-TR   | n/a                     | 1400               |
| QME 20      | 7100                    | 2500               |
| QME 20-TR   | n/a                     | 2500               |
| QME 30      | 9500                    | 3200               |
| QME 30-TR   | n/a                     | 3200               |

## Dimensions



| Designation      | J   | L   | L1 | L2 | h  | H1  | H2   | W   | W1  |
|------------------|-----|-----|----|----|----|-----|------|-----|-----|
| <b>QME 12</b>    | 73  | 85  | 12 | 14 | 15 | 5.5 | 8.5  | 85  | 73  |
| <b>QME 12-TR</b> | 73  | 85  | 12 | 14 | 15 | 5.5 | -    | 85  | 73  |
| <b>QME 20</b>    | 115 | 130 | 20 | 20 | 24 | 8.5 | 13.5 | 130 | 108 |
| <b>QME 20-TR</b> | 115 | 130 | 20 | 20 | 24 | 8.5 | -    | 130 | 108 |
| <b>QME 30</b>    | 184 | 200 | 22 | 22 | 36 | 8.5 | 14   | 200 | 178 |
| <b>QME 30-TR</b> | 184 | 200 | 22 | 22 | 36 | 8.5 | -    | 200 | 178 |

| Designation      | W2  | M       | Ltot       | d1  | D1  | d2  | D2  | h1  | h2   | h3  |
|------------------|-----|---------|------------|-----|-----|-----|-----|-----|------|-----|
| <b>QME 12</b>    | 45  | M6 x 12 | stroke+98  | 5.2 | 5.2 | 5.5 | 5.5 | 5.5 | 8.5  | 1.5 |
| <b>QME 12-TR</b> | 45  | M6 x 12 | stroke+98  | -   | 5.2 | -   | 5.5 | -   | 8.5  | 1.5 |
| <b>QME 20</b>    | 72  | M8 x 18 | stroke+150 | 6.8 | 6.8 | 11  | 11  | 8.5 | 13.5 | 2   |
| <b>QME 20-TR</b> | 72  | M8 x 18 | stroke+150 | -   | 6.8 | -   | 11  | -   | 13.5 | 2   |
| <b>QME 30</b>    | 130 | M8 x 18 | stroke+222 | 6.8 | 6.8 | 13  | 13  | 8.5 | 14   | 2   |
| <b>QME 30-TR</b> | 130 | M8 x 18 | stroke+222 | -   | 6.8 | -   | 13  | -   | 14   | 2   |

| Designation      | h4  | H    | L3 | L31 | d8      | B (P9) x L33 x T | Drive end W x |
|------------------|-----|------|----|-----|---------|------------------|---------------|
| <b>QME 12</b>    | 7.5 | 31.5 | 23 | 8   | 4 (h7)  | no keyway        | 53            |
| <b>QME 12-TR</b> | 7.5 | -    | 23 | 8   | 4 (h7)  | no keyway        | 53            |
| <b>QME 20</b>    | 7.5 | 48   | 48 | 25  | 10 (h7) | 3 x 21 x 1.8     | 61            |
| <b>QME 20-TR</b> | 7.5 | -    | 48 | 25  | 10 (h7) | 3 x 21 x 1.8     | 61            |
| <b>QME 30</b>    | 15  | 70   | 80 | 45  | 16 (h7) | 5 x 36 x 3       | 68            |
| <b>QME 30-TR</b> | 15  | -    | 80 | 45  | 16 (h7) | 5 x 36 x 3       | 68            |