Please use these definitions when referring to a force applied to the unit.

**Definition of Forces**

1. Velocity
2. Acceleration
3. Force
4. Load torque
5. Stiffness
6. Guide robustness
7. Maintenance
8. Cost
9. Repeatability
10. Noise

**Linear Units Quick Selection Guide**

- Ball screw driven - ball guided units
- Belt driven - ball guided units
- Belt driven - slide guided units
- Ball screw driven - slide guided units
- Belt driven - wheel guided units
- Linear units

**Product Groups**

Thomson linear units are divided into seven product groups depending on the drive and guiding method being used.

- **Ball screw driven - high guided units**
  - Suitable for high speed, precision and accuracy applications.
  - Force up to 12 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 10 m/s
- **Belt driven - high guided units**
  - Suitable for high speed, acceleration and low maintenance.
  - Force up to 12 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 10 m/s
- **Belt driven - slide guided units**
  - Suitable for high speed, precision and demanding environments.
  - Force up to 6 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 5 m/s
- **Belt driven - ball guided units**
  - Suitable for high speed, precision and demanding environments.
  - Force up to 6 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 5 m/s
- **Belt driven - wheel guided units**
  - Suitable for high speed, acceleration and load requiring a long lifetime.
  - Force up to 4 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 3 m/s
- **Linear units**
  - Suitable for high speed, precision and demanding environments.
  - Force up to 6 000 N
  - Acceleration up to 60 m/s²
  - Speed up to 10 m/s
## Linear Units Quick Selection Guide

<table>
<thead>
<tr>
<th>Drive Type</th>
<th>Screw diameter / belt type [mm]</th>
<th>Profile size (width × height) [mm]</th>
<th>Max. load aperture [mm]</th>
<th>Max. stroke length [mm]</th>
<th>Max. dynamic load torque (Mz)</th>
<th>Max. dynamic load (Fy)</th>
<th>Max. dynamic load (Fx) [N]</th>
<th>Repeatability [±mm]</th>
<th>Max. acceleration [m/s²]</th>
<th>Screw supports, when required / optional / no</th>
<th>Chemical protection</th>
<th>Double carriages</th>
<th>Single carriage</th>
<th>Options</th>
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**Note:** The table provides specifications for different drive types, including details on screw diameter, belt type, profile size, max. load aperture, max. stroke length, max. dynamic load torque, max. dynamic load (Fy), max. dynamic load (Fx), repeatability, max. acceleration, screw supports, and chemical protection options. The table is designed to help in quick selection of suitable linear units based on specific requirements.