Linear Units Quick Selection Guide

Linear Units are divided into seven product groups depending of the drive and guiding method being used.

1. Belt driven - wheel guided units
   - Advantage: High speed, acceleration and load
   - Disadvantage: Short lifetime
   -oe of medium to high loads.
   - Applications: High speed, acceleration and load requiring a long lifetime.

2. Belt driven - slide guided units
   - Advantage: Smooth running units for high speed, acceleration and load environments.
   - Disadvantage: Low cost units for high thrust applications and demanding environments.
   - Applications: Smooth running and demanding environments.

3. Ball screw driven - ball guided units
   - Advantage: Repeatability down to 0.005mm, force up to 12000 N, stiffness.
   - Disadvantage: Units designed for high thrust, payload, precision and demanding environments.
   - Applications: High thrust, payload, precision and demanding environments.

4. Ball screw driven - slide guided units
   - Advantage: Repeatability down to 0.005mm, force up to 12000 N, stiffness.
   - Disadvantage: Units designed for high thrust, payload, precision and demanding environments.
   - Applications: High thrust, payload, precision and demanding environments.

5. Linear lifting units
   - Advantage: Units for lifting applications that are used in 3D applications in combination with other linear axes.
   - Disadvantage: Units for lifting applications that are used in 3D applications in combination with other linear axes.
   - Applications: Units for lifting applications that are used in 3D applications in combination with other linear axes.

6. Ball screw driven - ball guided units
   - Advantage: Repeatability down to 0.005mm, force up to 12000 N, stiffness.
   - Disadvantage: Units designed for high thrust, payload, precision and demanding environments.
   - Applications: High thrust, payload, precision and demanding environments.

7. Chemically protected versions
   - Advantage: Cost efficient guide system
   - Disadvantage: Units for applications requiring high speed, acceleration and load requiring a long lifetime.
   - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

8. Cost efficient versions
   - Advantage: Cost efficient guide system
   - Disadvantage: Units for applications requiring high speed, acceleration and load requiring a long lifetime.
   - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

9. Durable guide system
   - Advantage: Cost efficient guide system
   - Disadvantage: Units for applications requiring high speed, acceleration and load requiring a long lifetime.
   - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

10. Low maintenance
    - Advantage: Cost efficient guide system
    - Disadvantage: Units for applications requiring high speed, acceleration and load requiring a long lifetime.
    - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

11. Smooth running units for high speed, acceleration and load environments.
    - Advantage: Low cost units for high thrust applications and demanding environments.
    - Disadvantage: Units designed for high thrust, payload, precision and demanding environments.
    - Applications: Units designed for high thrust, payload, precision and demanding environments.

12. Washdown protected versions
    - Advantage: Smooth running units for high speed, acceleration and load environments.
    - Disadvantage: Cost efficient guide system
    - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

13. Washdown versions
    - Advantage: Smooth running units for high speed, acceleration and load environments.
    - Disadvantage: Cost efficient guide system
    - Applications: Units for applications requiring high speed, acceleration and load requiring a long lifetime.

Definition of Forces

- Force: A push or draw applied to an object.
- Load: A push or pull exerted on an object to cause it to move.
- Torque: A twisting force applied to an object.
- Stiffness: The resistance of an object to deformation.
- Guide robustness: The resistance of an object’s guide system to environmental factors.
- Acceleration: The rate at which an object’s velocity changes over time.
- Speed: The rate at which an object’s position changes over time.
- Velocity: The rate at which an object’s position and direction change over time.
- Repeatability: The degree to which a movement can be consistently reproduced.
- Cost: The monetary expense associated with the production and maintenance of an object.
- Maintenance: The process of keeping an object in good working condition.
- Noise: The disturbance caused by unwanted sound.
**Quick Selection Table**

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<td>4500 × 4500</td>
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<td>2000 × 2000</td>
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**Notes:**
- Value between brackets = for speeds above 2,5 m/s.
- Entries marked with * are for speeds above 2,5 m/s.