

EWELLIX

A Schaeffler Company

Solutions for dental equipments



The heritage of innovation

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy. We engineer solutions for assembly automation, medical equipment, mobile machinery, distribution and a wide range of other industrial applications.

Technology leadership

We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider. Our history provided us with the expertise to continuously develop new technologies and use them to create cutting edge products that offer our customers a competitive advantage.

In 2019, we became independent and changed our name to Ewellix. We are proud of our heritage. This gives us a unique foundation on which to build an agile business with engineering excellence and innovation as our core strengths.

Global presence and local support

With our global presence, we are uniquely positioned to deliver standard components and custom-engineered solutions, with full technical and applications support around the world. Our skilled engineers provide total life-cycle support, helping to optimise the design, operation and maintenance of equipment thus improving productivity and reliability while reducing costs. At Ewellix, we don't just provide products; we engineer integrated solutions that help customers realise their ambitions.

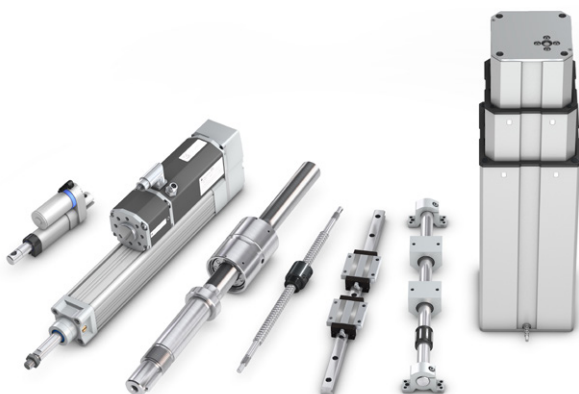
Schaeffler Group – We pioneer motion

Ewellix is since 2023 owned by the Schaeffler Group.

As a leading global supplier to the automotive and industrial sectors, the Schaeffler Group has been driving forward groundbreaking inventions and developments in the fields of motion and mobility for over 75 years.

With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion and mobility more efficient, intelligent, and sustainable.

Schaeffler manufactures high-precision components and systems for powertrain and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.



Put a smile on the patient's face

The steady growth in dentistry is driven to several facts, such as an increased desire for aesthetics, a demographic shift towards an aging population and a desire to retain tooth structure later in life. A constant cycle of new and emerging technologies has enabled dental practitioners to minimize pain, risk, and post-procedure issues with greater precision and less discomfort for the patient.

Strategic positioning, clinical value and efficiency, your customers success.

We support you with our strong knowledge and expertise in linear motion technologies, combined with more than 30 years' experience in the medical device market. It is our target to build strategic long-term partnerships and enable you to differentiate from your competition and at the same time focusing on your core competencies.



Ewellix offers a full range of products specially designed for medical applications, which provide:

- High performance and reliability
- Compact and robust designs
- Compliance with standards and regulations
- Extensive industry experience and knowledge
- Global presence and knowledge support

Dental equipment trends

- Productivity and patient flow improvement
- Higher patient comfort and simplified usage
- Digital systems offering increased speed and flexibility
- Radiation dose reduction and increased imaging quality
- Usage of advanced CAD/CAM technologies
- 3D printing of crowns and bridges is expanding

Ewellix value proposition

- Fast, precise and reliable linear motion
- Excellent repeatability with highly accurate positioning
- Smooth and low noise adjustment
- Compact and space saving design
- High modularity and flexibility
- Long service life, virtually maintenance-free
- Comply with standard and regulations

Dental x-ray

Increasingly, both 2D and 3D imaging systems are being used in dental care but also in teeth reconstruction under real-time conditions. 3D digital X-ray imaging is imperative for dental implant treatment to ensure accurate planning and safe surgery. Some cases will even require 3D printed models of the CT scan and 3D printed surgical guides.

Ewellix offers linear actuation and motion solutions designed to ease patient examination for dental imaging systems. For a fast and smooth height adjustment we are offering low noise lifting columns or tailor-made long stroke actuators in combination with our low friction profile rail guides. Our space saving miniature profile rail guides and miniature precision ball screws are the right choice for any other motion in the dental imaging systems.

Benefit from our extensive product and application knowledge and reduce your time to market with our proven in use solutions.

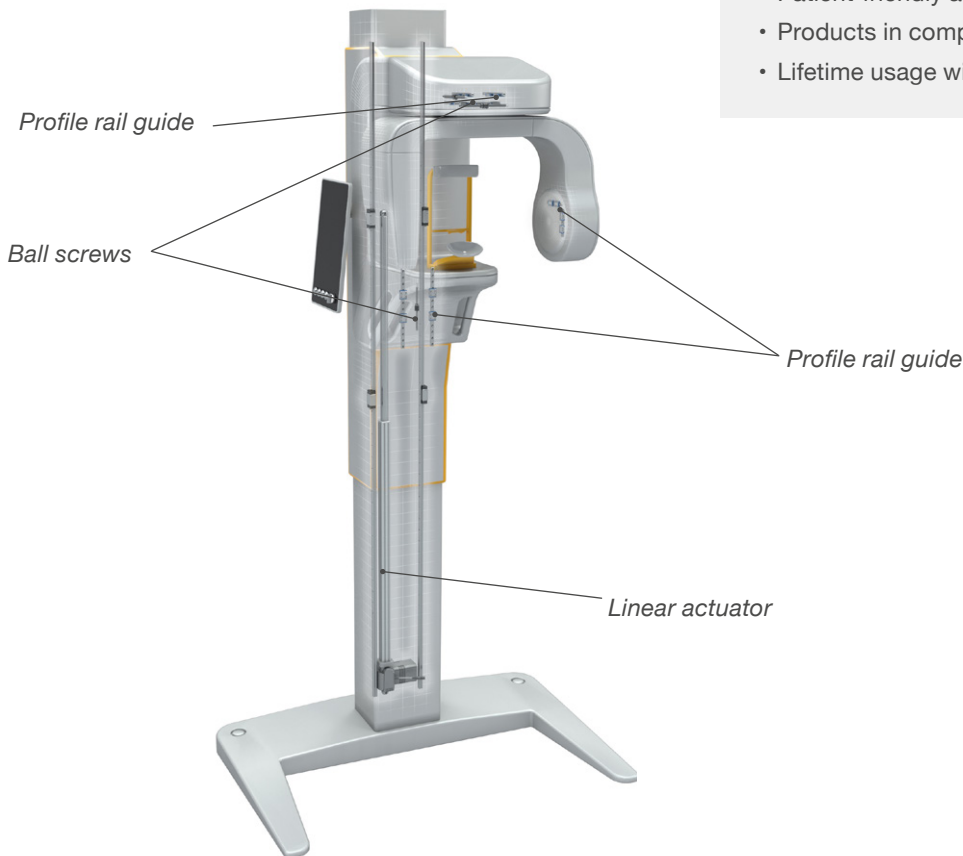
Ewellix solutions

Features

- Long lifting stroke at compact retracted size
- High lifting load and speed capability
- Smooth and nearly friction-less guiding
- Silent and precise motion
- UL/EN 60601-1 conformity
- Virtually maintenance-free

Benefits

- Wide adjustment range
- Increased load range to carry the required equipment
- Enhanced productivity and cost-effectiveness
- Patient-friendly and comfortable examination
- Products in compliance with norms and regulations
- Lifetime usage without maintenance



Lifting columns

Linear actuators

Control boxes

Profile rail guides

Ball screws



TFG



TLG



MATRIX



BCU



LLT



LLS



SP

Dental CNC Milling

Today, digital dental technologies are transforming every aspect of the dental industry. The days of tedious, manual production of crowns, copings and bridges are fast disappearing.

The latest technological advancements in scanning, CAD/CAM software and CNC milling allow digital dental labs to deliver custom production with speed and precision. Better fit and aesthetics promote patient satisfaction, while labs enjoy greater productivity with faster turnaround and optimal accuracy and repeatability.

Ewellix standard ranges of miniature profile rail guides and miniature precision ball screws, ensure controlled and high precise movements that allow to produce dental milling machines for reliable, precise and error-free milling.

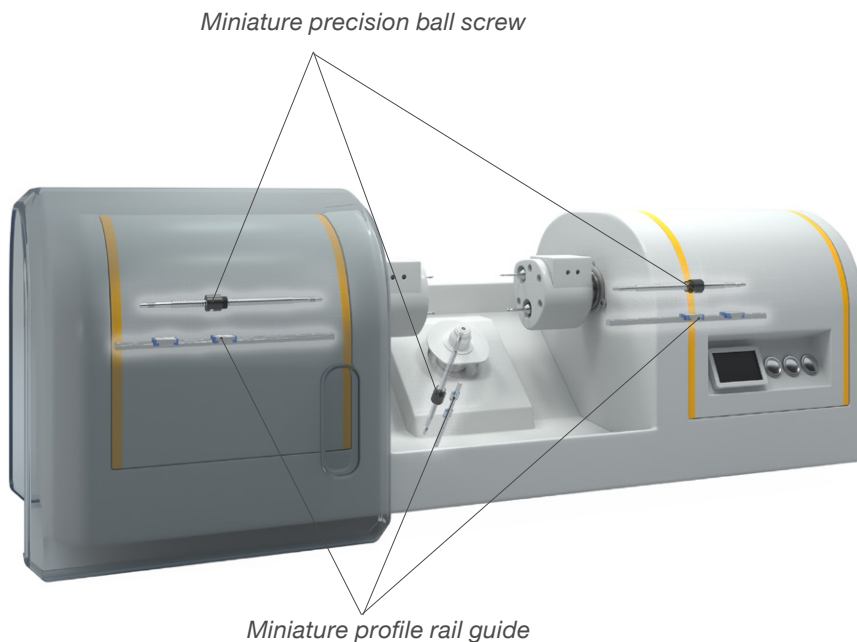
Ewellix solutions

Features

- Long service life, virtually maintenance-free
- Smooth running and low friction
- Excellent repeatability with highly accurate positioning
- Compact and space saving design

Benefits

- Good sealing function with long seal life due to highly abrasive resistant material with
- Factory pre-lubricated products with long service life up to 20 000 km
- Higher rigidity due to optimized carriage design
- Safe and quick mounting
- Worldwide availability through Ewellix distribution network



Miniature profile rail guides



LLS

Miniature precision ball screws



SP

Dental 3D printing

Modern 3D printers open up a broad range of new dental treatment options. And with advances in digital light processing, open materials and improvements to both print speed and quality, 3D printing is seen by many as the future of digital dentistry.

As the world moves in an increasingly digital direction, so too does dentistry. Technologies such as CAD/CAM and intraoral scanners have revolutionized the way clinicians treat patients and can streamline processes, improve treatment outcomes and increase production. Now, 3D printing systems – many designed specifically for dentistry – supply these benefits, and at a fraction of the cost of many other practice investments.

We support you with our extensive knowledge and expertise in linear motion technologies, to reduce your time to market and increase your competitiveness. Our platform offering for dental 3D printing consists of cost competitive linear bearings, smooth running miniature profile rail guides and miniature high performance ball screws.

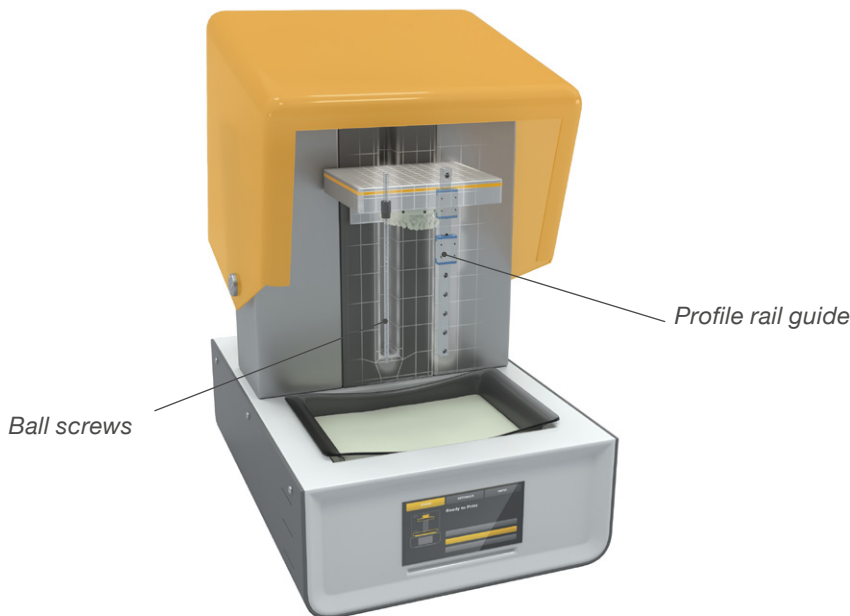
Ewellix solutions

Features

- High running accuracy
- Smooth running and low friction
- Axial play and backlash elimination available
- Factory pre-lubricated products with lube reservoir
- Compact and space saving design

Benefits

- High positioning accuracy and excellent repeatability
- Increased productivity and efficiency
- Long service life, virtually maintenance-free
- Easy and quick system integration
- Good availability and shorter time to market



Miniature profile rail guides



LLS

Miniature precision ball screws



SP

Linear ball bearings



LBB

Products overview

Lifting columns



	TLG10-C	TLG10-B	TFG10	TLG10-A
Rated push load	1 500 N	1 500 N	2 500 N	4 000 N
Speed	25 to 33 mm/s	13 to 17 mm/s	15 to 19 mm/s	10 to 14 mm/s
Retracted length	Stroke + 180 mm	Stroke + 180 mm	Stroke + 130 mm	Stroke + 180 mm
Bending load	Up to 950 Nm	Up to 1 750 Nm	up to 500 Nm	Up to 2 800 Nm

Linear actuators



	MAX10-C	MAX30-C
Rated push load	1 500 N	3 000 N
Rated pull load	1 500 N	3 000 N
Speed	13 to 18 mm/s	13 to 18 mm/s
Retracted length	Stroke + 260 mm	Stroke + 280 mm

Control boxes



	BCU
Motor ports	3
Output voltage (nominal)	24 VDC
Total output current (max)	7A
Operating device ports	1
Soft Start/Stop	–
Encoder processing	–
Memory Functions	–
Configurable binary inputs / outputs	–
Configurable smart functionality	–
Optional battery	–
Optional RS232 interface	–

Linear guides



	LB-range	LLS-range	LLT-range
Size and range	3 to 80	7 to 15	15 to 45
Dynamic load rating	up to 37,5 kN	up to 12,5 kN	up to 72,5 kN
Speed	up to 5 m/sec	up to 5 m/sec	up to 5 m/sec
Acceleration	up to 100 m/ sec ²	up to 140 m/ sec ²	up to 75 m/ sec ²
Accuracy	up to 50 µm at 2 m	up to 10 µm at 2 m	up to 18 µm at 4 m
Material options	Stainless steel	Stainless steel	Coatings
Characteristics	Easy integrations	Miniature sizes	Economic solutions

Ball screws



	SP
Nominal diameter	8 to 16
Lead	2 to 5 mm
Max push/pull load	1 000 to 5 000 N
Max speed	1 000 mm/s
Backlash free option	✓
Preload option	-

Supporting tool

Digital

Ewellix has developed a portfolio of tools to support customers in the easy selection and calculation of the right Ewellix product for their application.

Actuators

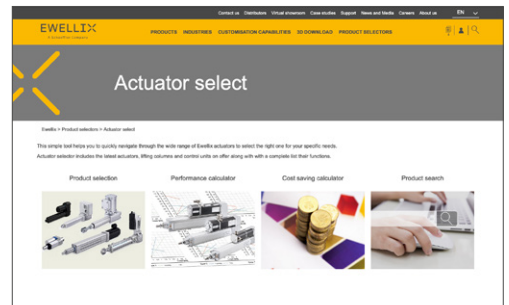
- Product selection
- Performance calculator
- Cost saving calculator

Linear guides

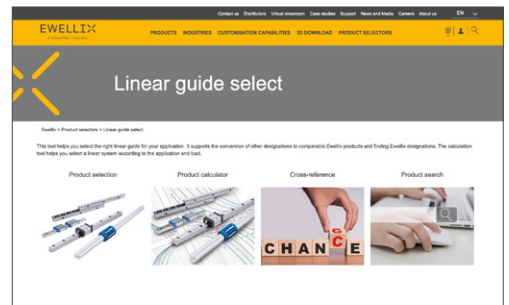
- Product selection
- Product calculator
- Cross reference



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Publications

Supporting documents are available for downloading on ewellix.com in each product page under technical data section:

- operating manual
- mounting instruction

Lifting column TLG

[Click here to open](#)



Miniature profile rail guides LLS

[Click here to open](#)



Precision rolled ball screws

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Lifting column TFG

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Profile rail guides LLT

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Control units

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Linear actuator Matrix series

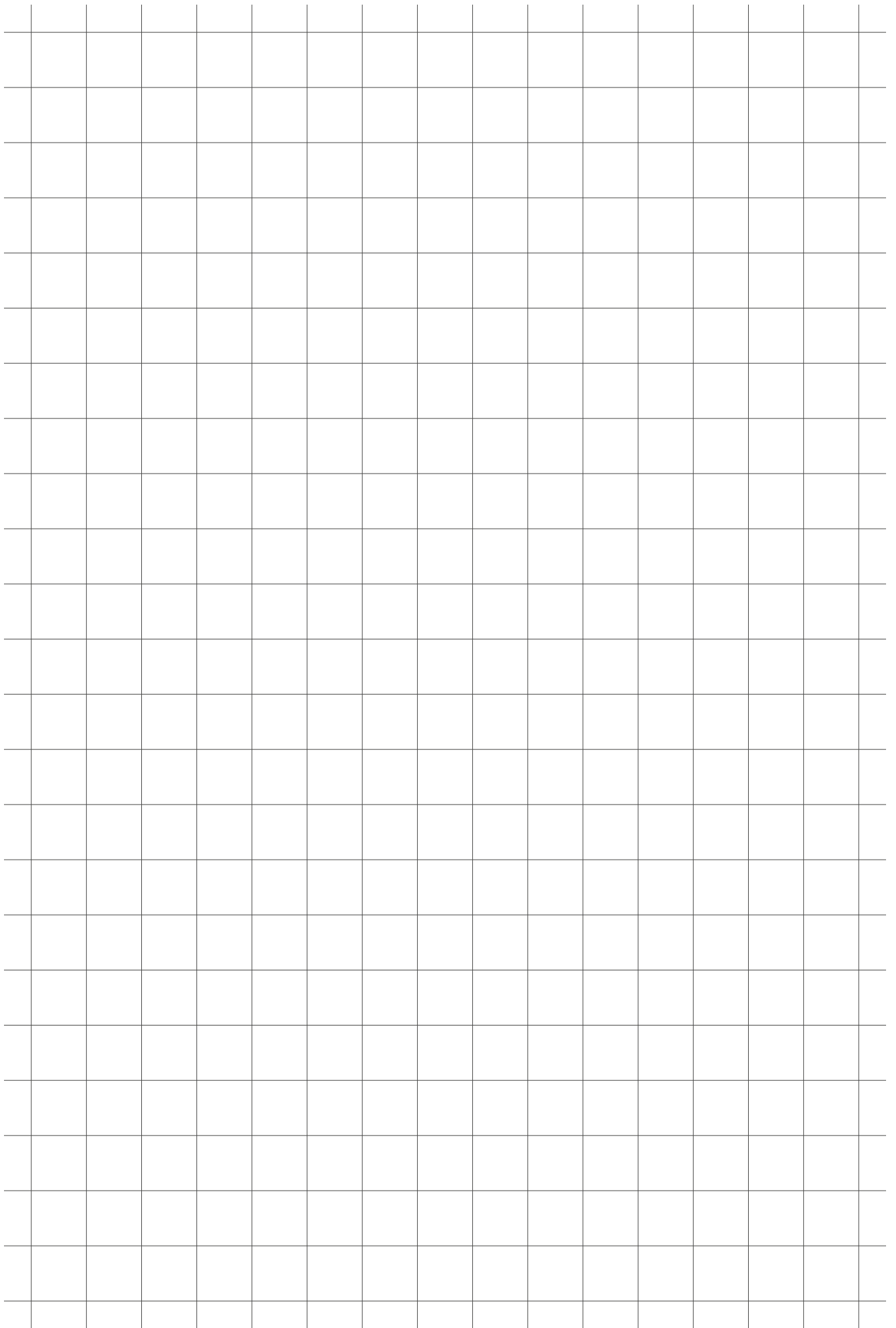
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Linear ball bearings

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