

#### OUR MISSION

“From standard products to customized solutions to be your preferred partner in microsystems for medical, optical, security and industrial devices”

#### OUR COMPANY

With nearly 80 years' **experience** in the field of high-precision microsystems, mps can offer standard and complete customized solutions.

Thanks to the **reliability** and **quality** of mps linear ball bearings and ball screws, the company has been quickly known in ambitious fields of activities.

Helping to ensure the achievements and **success** of our customers is our principal motivation. Pushing the limits of **microtechnology** by continuously improving the production and assembly processes is a task that inspires our multidisciplinary professional teams.

#### Standard Ball screws

MPS offers a comprehensive range of miniature high precision ball screws with a **positioning accuracy < 5 μm**.

The ball screw technology that was developed by MPS leads to outstanding performances such as **high efficiencies, smoothness** and **long-life reliability**.



The mps ball screws are entirely made out of stainless steel and all components are ground. They are fitted with a double nut to **adjust the play from 1 to 3 μm**.

#### Customized balls screws

Most applications require specific mechanical interfaces, or **special characteristics**.

Throughout a long-time experience with countless cases in various application fields MPS has acquired an exceptional level of expertise in the design and manufacture of customised ball screws, thus always gathering two essential features: **precision** and **compactness**.

#### On request

- Lubricants: grease, oil, dry lubrication
- Machined ends
- Customized outer sleeve (flanged, dimensions, etc.)
- Customized screw length
- Higher static load
- Multiple nuts
- Left hand thread
- Axial play (down to zero backlash)
- Special surface treatments



### Miniature high precision Linear Bearings

#### Linear bearings – L-type

*with stainless steel housing and brass retainer*

MPS is specialised in miniature **high precision** linear bearings with tolerances of diameter under the balls < 8 µm.

Thanks to their optimized design, mps linear bearings allow for **smooth** and **noiseless** movements in the applications.

With its L204X, mps offers the **smallest linear bearing** available on the market.

- Comprehensive range with bore diameters from Ø 2 mm to Ø 6 mm
- Bore diameter tolerances +8/0 µm
- Outer diameter tolerances 0/-8µm

#### On request

- Customized designs (housing up to Ø 30 mm)
- All stainless steel execution
- With reduced bore tolerance



Customised solutions with reduced radial play or made-to-measure housing are also possible.

#### Linear bearings – DBL-type

*with plastic body (POM), and stainless steel balls and needles*

This comprehensive range of miniature precision linear bearings of a **unique design** offers significant **cost savings** to our customers.

The segments of the housing are made of **plastic** (POM) and the outer diameter of the bearing is set by needles made of stainless steel which simultaneously operate as runway for the balls.



- Cost-effective
- Comprehensive range with bore diameter from Ø 3 mm to Ø 12 mm
- Excellent constancy in the performances when submitted to severe temperature variations