In all aspects of our business we are dedicated to our customer's specific needs through our unique ability to provide support during the lifetime of any of our products. From standard high precision linear bearings and slides to fully integrated positioning systems. From prototypes to large volume production, all made in the Netherlands.

DEDICATION TO CUSTOMER NEEDS

- Expert advice and consulting
- Design for specification
- State-of-the-art milling
- In-house heat treatment
- High precision grinding
- Full quality control
- Assembly with the dedicated precision of watchmakers
- Delivery as part of product performance

PM RESEARCH AND PRODUCTION FACILITY

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PM is an independent Dutch company with over 50 years of experience in manufacturing of precision linear bearings and positioning slides. Ongoing research drives PM continuously push us to find innovative solutions to our linear bearings and frictionless slides. Demanding industries specifically knowledge is the key in solving complex technological challenges.

The combination of our manufacturing know how and mechanical expertise together with customers’ application specific knowledge is the key in scaling complex technological challenges.

This core competence has paved the way for PM to develop its position as an architect of positioning systems and integrated solutions.

The solutions developed by PM find their way to various industries. These include, but are not limited to:

- Semiconductor
- Medical science
- Analytical
- Optical
- Metrology

Linear Bearings

PM’s linear bearings are suitable for applications where high-precision, compact design and repeatability of motion are required. Mounted as a pre-assembled set, these bearings offer high stiffness in any constrained direction and a virtually friction-free motion detection. A wide range of sizes is available, offering the design engineer utmost flexibility. The ACC option is available for high acceleration applications.

The standard crossed roller bearing (ACD) is available with either cylindrical rollers or balls, ranging in sizes from 5.5 to 24 mm. The standard precision crossed roller bearing (ACD) is equipped with cylindrical rollers and POM or PEEK cages and has a load rating 3 times higher than the standard crossed roller bearing. Options include anti-cage creep technology (ACC). Each slide comes with mounting holes already drilled in a standardized pattern to aid in easy assembly. The mounting surfaces are precision ground to achieve a superior degree of flatness in motion.

Rotation Bearings

The gonio bearing (GB) is available in stainless steel, anti-friction rails or balls. These bearings allow the user to perform extremely accurate radial movement combined with virtually friction-free rotation. The maximum rotation is 10°.

Radial Bearing RPM

Recirculating bearings for recirculating slides are available with stainless steel ball or steel crossed roller configuration for high stiffness and increased lifetime, suitable for high precision and rapid positioning in microscale applications.

Micro slides of type PMMR and PMAR are available with stroke lengths ranging from 0 to 20 mm in different sizes. The weight specifications range from 10 to 50 grams. PMMAR was a recirculating roller configuration for high stiffness and increased lifetime, suitable for rapid and precise positioning in microscale applications.

Rotation bearings are suitable for application where unlimited travel is required. The complete bearing assembly consists of a base plate (RT), double-sided rail (UR) and slide type (RSDE). Options include anti-cage creep technology (ACC) for unlimited rotational freedom. The maximum rotation is 360°.

Radial Bearing RPM

Radial bearing configurations allow virtually frictionless radial positioning and come as a factory pre-loaded set. RPM bearings are available in arc segment or full circular segment with 360° rotational freedom.

Each slide comes with mounting holes already drilled in a standardized pattern to aid in easy assembly. The mounting surfaces are precision ground to achieve a superior degree of flatness in motion.

Specifications

- Frictionless: slides are made from high quality bearing steel, hardened to 60 – 62 HRC. All slides can also be supplied in stainless steel or with various types of platting. The minimum length of end side rail is 1000 mm. Where greater lengths are required, two or more rails can be ground to match. For specific purposes we offer as follows: compatible packaging.

- Frictionless Precision Slides

PM frictionless slides are easy to install and include components for precise linear movement. The crossed roller slides are factory pre-loaded, to ensure high accuracy, an extremely low friction coefficient of friction (c = 0.003) and a long service lifetime.

The crossed roller bearing with increased contact surface (M/V or RSD) is currently available in stainless steel or with various types of platting. The standard precision crossed roller bearing (ACD) and its lightweight aluminium variant (RSDE) are available from 5 – 100 mm with a maximum load rating of 71,000 N.

A crossed roller type ATC (Rails range from 10 – 150 mm with a maximum load rating of 5,500 N).

Fully ceramic linear bearing (CIC) for applications that require electrical insulation. The combination of low mass and high stiffness in a combination with high softness, frictionless radial movement and low uniform coefficient of friction (<0.003) and a long operation lifetime.

PM bears are SiC in combination with high stiffness, absence of magnetism, absence of lubrication or low mass and in combination with high softness.

Materials commonly used are SiC in combination with high stiffness. Micro slides of type PMMR and PMAR are available with stroke lengths ranging from 0 to 20 mm in different sizes. The weight specifications range from 10 to 50 grams. PMMAR was a recirculating roller configuration for high stiffness and increased lifetime, suitable for rapid and precise positioning in microscale applications.

PMMR

PMAR

Fully ceramic linear bearing (CIC) for applications that require electrical insulation and that present a high demand on the availability of high softness, frictionless radial movement and low uniform coefficient of friction (<0.003) and a long operation lifetime. PMAR bearings are SiC in combination with high stiffness. Micro slides of type PMMR and PMAR are available with stroke lengths ranging from 0 to 20 mm in different sizes. The weight specifications range from 10 to 50 grams. PMMAR was a recirculating roller configuration for high stiffness and increased lifetime, suitable for rapid and precise positioning in microscale applications.