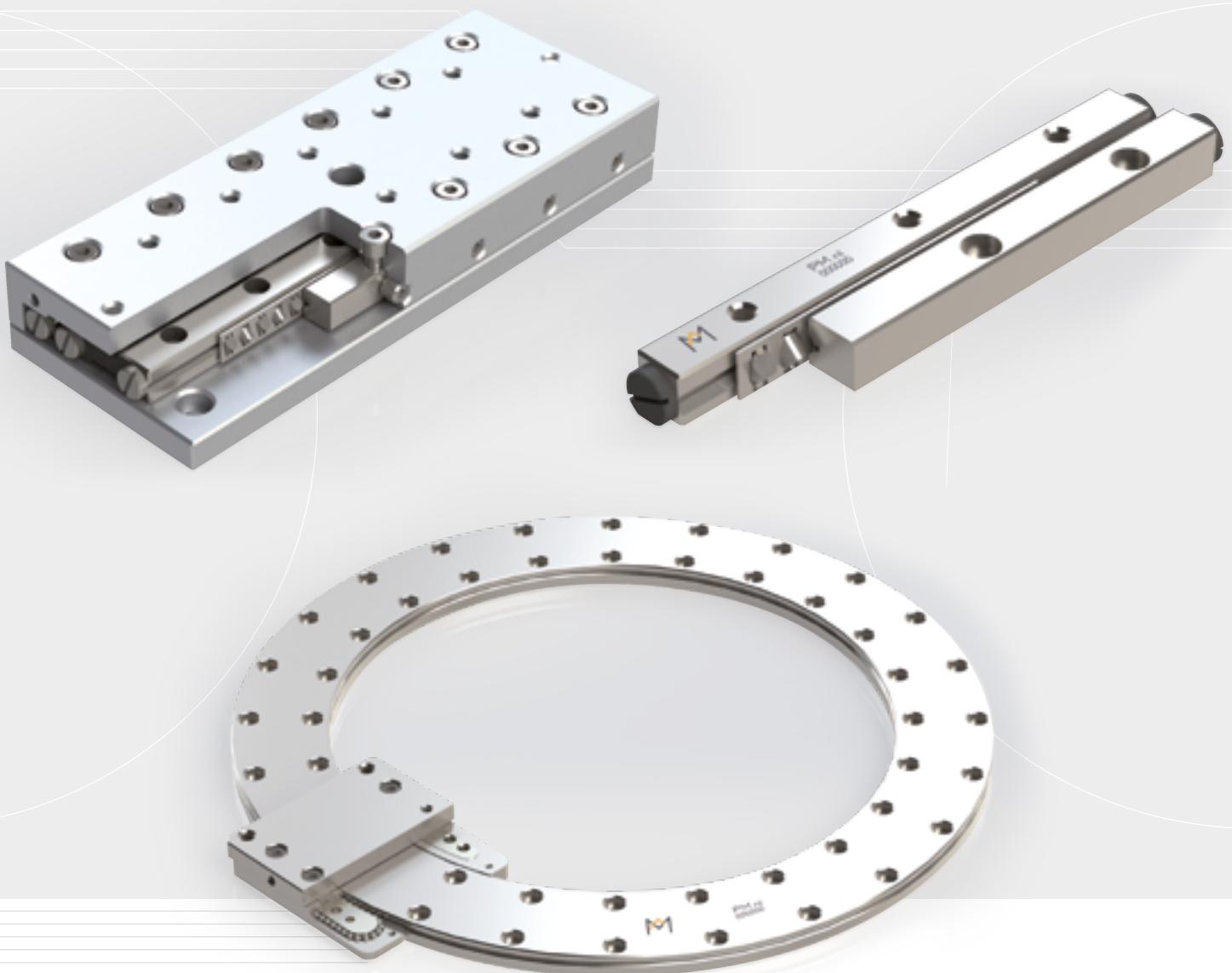


OVER  
**50**  
YEARS  
of success



## PRODUCT OVERVIEW



# COMPANY'S HEADQUARTERS IN DEDEMSVAART, NETHERLANDS



Innovative design and manufacture of precision linear bearings, frictionless slides, positioning stages and mechatronic systems.

[PM]

PM is an independent, family-run Dutch business with over 50 years of highly specialised experience in the design and manufacturing of precision linear bearings and frictionless slides.

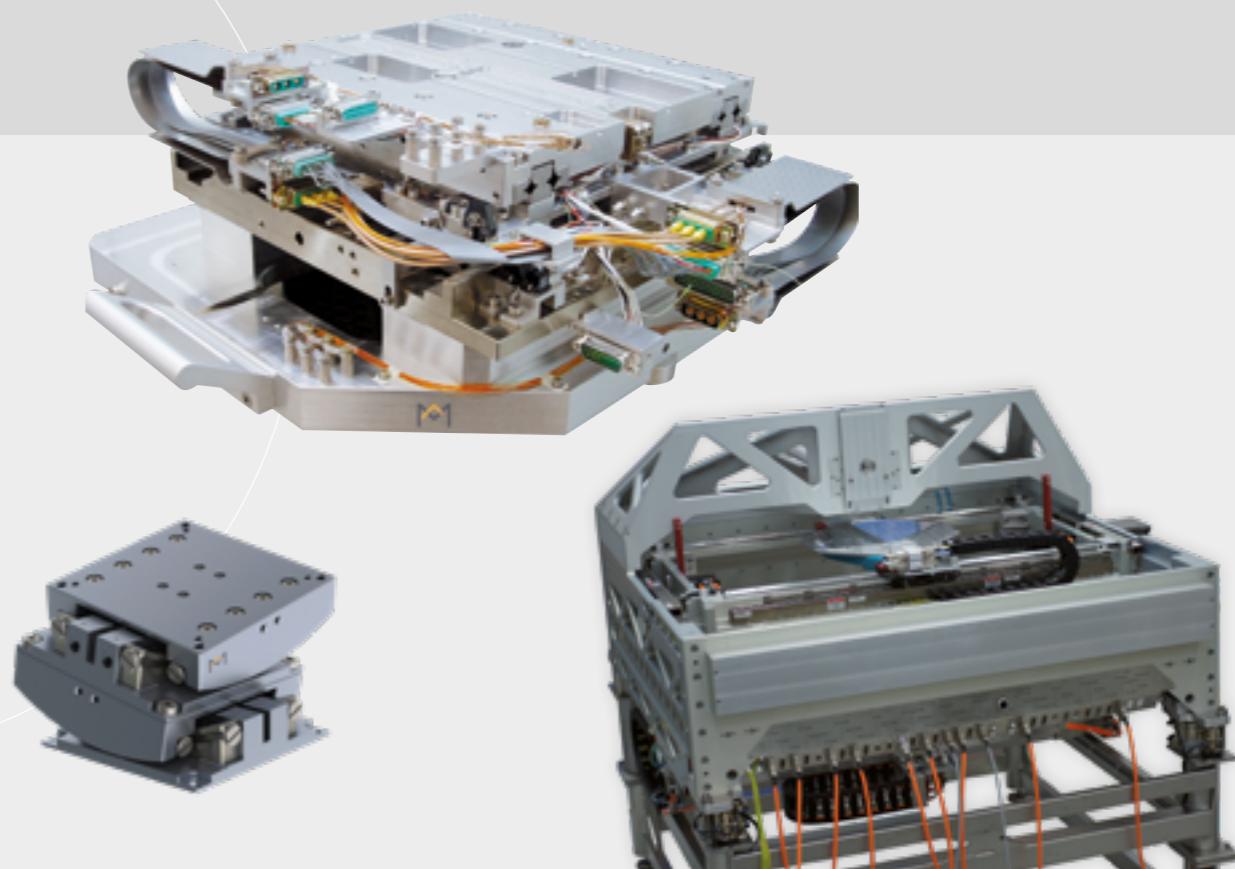
Serving a global client base on the cutting edge of high tech industries, our products are an integral part of the market's constant push to develop the most innovative solutions. We are proud of our continued success in attaining our position as a trusted partner and architect of high performance linear bearing systems, crossed roller configuration technologies and integrated solutions.

We are masters in solving complex technical problems. We apply deep mechatronic expertise and the latest manufacturing know-how to our clients' specific industry challenges.

PM-developed solutions find their way into various highly specialised markets. These include, but are not limited to:

- Semiconductor industry
- Non-destructive analysis techniques
- Medical science
- Precision optical lenses
- Technical and industrial metrology

View our [positioning system competences](#)



[PM]

## Linear Bearings

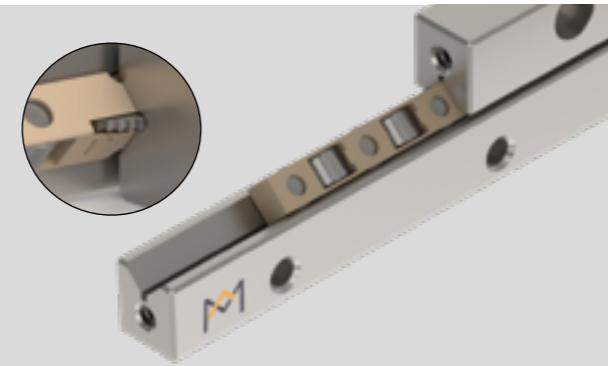
PM's linear bearings are suitable for applications where high precision, compact design and repetitive motion are required. Mounted as a preloaded set, these bearings offer high stiffness in any constrained direction and a virtually friction-free motion direction. Available in a wide range of sizes, the engineer is offered maximum design latitude and flexibility. Our Anti-Cage Creep (ACC) option is available for high-acceleration applications.



The standard crossed roller bearing ([RSD](#)) is available with either cylindrical rollers or cylindrical balls, with sizes ranging from 1.5 to 24 mm.

## Specifications

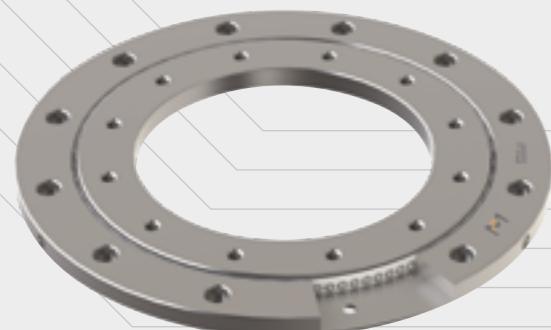
PM anti-friction rails are produced of high-quality bearing steel, through hardened at 58–62 Hrc. Stainless steel versions and various types of plating are available for our complete range of rails. The maximum length of a single rail is 1400 mm when produced out of a single piece of material. Where greater lengths are required, two or more rails can be ground to match for seamless attachment. In-house cleanroom-compatible packaging is available on request.



The standard crossed roller bearing with increased contact surface ([RSDE](#) or [RNG](#)) is equipped with cylindrical rollers and POM or PEEK cages and has a load rating three times that of standard [RNG](#) bearings. Available in roller diameter sizes 3, 4, 6 and 9 mm. Anti-cage creep technology (ACC) is available as an option.

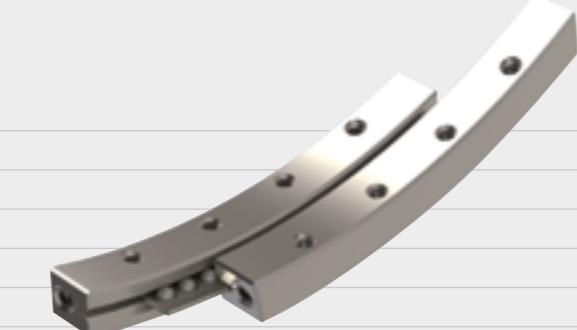


Fully ceramic linear bearing ([CR](#)) for applications requiring absence of magnetism, absence of lubrication or low mass combined with high stiffness. Commonly used materials are  $\text{Si}_3\text{N}_4$ ,  $\text{ZrO}_2$  or  $\text{Al}_2\text{O}_3$ . Typical fields of use include electron microscopy, semiconductor industry and medical applications.



## Rotation Bearings

The Flat Mounted table Bearing ([FMB](#)) is currently available in diameters up to 500 mm. This type of bearing combines high accuracy, repeatability and rigidity with a small footprint.



The gonio bearing ([RGB](#)) is available with either cylindrical rollers or cylindrical balls. These bearings allow the user to perform extremely accurate radial movement combined with virtually friction-free motion. Suitable for rotations up to 10°.

## Frictionless Precision Slides

PM frictionless slides are ready-to-install single-axis components for precise limited linear movements. The crossed roller slides are factory preloaded to assure high accuracy, an extremely low uniform friction coefficient friction (<0.003) and long operational lifetime.



This steel crossed roller slide ([RT](#)) is also available in lightweight aluminium ([RTA](#)). Available with stroke ranges of 10–950 mm and a maximum load rating of 71.550 N.



The [RTS](#) slide is a low-profile steel crossed roller slide. Available with stroke ranges of 12–130 mm and a maximum load rating of 3.672 N.

## PMM



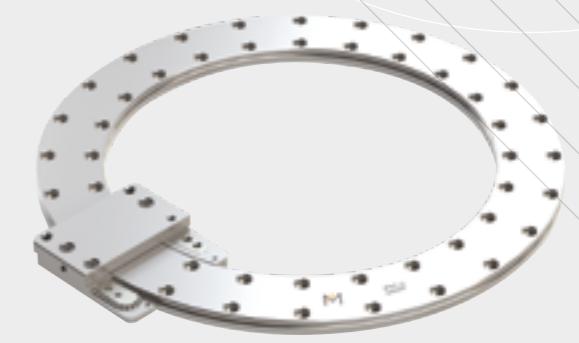
The [RTNG](#) crossed roller slide offers protection against environmental contamination due to its narrow gap between table and base. Available with stroke ranges of 10–250 mm and a maximum load rating of 35.100 N.

Micro slides of the [PMM](#) and [PMMR](#) types are available with stroke lengths ranging from 5 to 70 mm in three different sizes. Weight specifications range from 2 to 80 grams. [PMMR](#) uses a crossed roller configuration for high stiffness and extended lifetime, perfectly suitable for rapid and precise positioning in microscale applications.



## Recirculating bearings

Recirculating linear bearings can be used for applications that require unlimited travel. The complete bearing assembly consists of a base plate ([UT](#)), double-sided rail ([DS](#)) and [US](#) type slide for recirculating units of type [UK](#) (balls) and type [UR](#) (rollers).



## Radial Bearing RPM

These stainless steel bearings allow virtually frictionless radial positioning and come as a factory-preloaded set. [RPM](#) bearings are available as an arc segment or full circular segment with 360° rotational freedom.



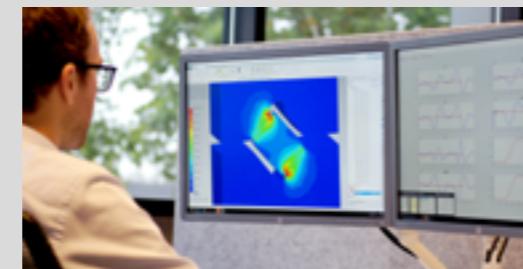
## CUSTOMER-CENTRIC APPROACH

Our expert advisers provide full lifetime product support no matter what the specific needs are in your field of industry. As a PM client you can expect to see a customer-centric approach in all aspects of how we do business, in all of our product groups and from the prototype stage through to large volume production. All PM products are designed and manufactured at our state-of-the-art facilities in the Netherlands.

**Expert advice and consulting**



**Design to client specification**



**State-of-the-art milling**



**In-house heat treatment**



**High precision grinding**



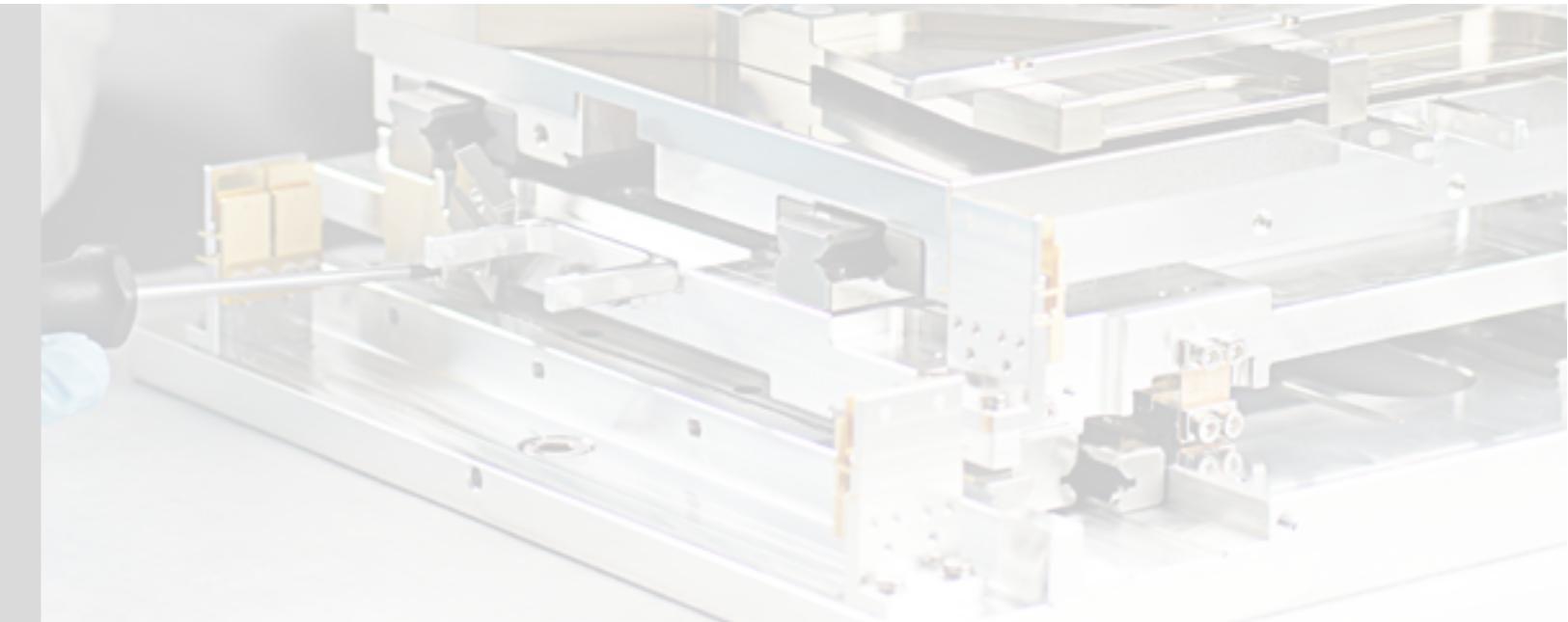
**Full quality control**



**Assembly to the highest standard of precision**



**The highest standards for packaging and delivery**



More information about the largest portfolio of precision linear bearings, slides and customised products at [PM.nl](http://PM.nl)



CAD, STEP and IGES files are available.



**PM B.V.**

Galileistraat 2

NL-7701 SK, Dedemsvaart

the Netherlands

Tel: +31 523 61 22 58

[info@pm.nl](mailto:info@pm.nl)

[www.PM.nl](http://www.PM.nl)