ULTRA-PRECISION AEROSTATIC/HYDROSTATIC LINEAR GUIDES / ROTARY TABLES



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RT750 LT LUTRA



Hydrostatically mounted rotary table (RT250) as machine axis

Ultra-Precision Bearings

Our ultra-precision bearings are not only used in our UP machines but also in many other applications.

Highest Precision and Versatility

Our bearings are used in the most demanding applications in terms of precision and long-term stability – benefiting many manufacturers of measuring and machine tools.

Proven Across Numerous Industries

Our bearings are already successfully used in the following sectors:

- Optics and Laser Technology
- Semiconductor Industry
- Fundamental Research
- Aerospace
- Metrology
- Machine Manufacturers
- Cleanroom (aerostatic only)

Customized Solutions

We are happy to adapt existing bearings to your specific application. Contact us!

Advantages

- Aerostatic / Hydrostatic bearings
- Virtually frictionless
- No stick-slip
- Wear-free operation
- High stiffness up to 5000 $N/\mu m$

Hydrostatic bearings offer higher load capacities and stiffness than aerostatic bearings within the same installation space.

Aerostatic bearings do not contaminate the environment with particles like conventional bearings, making them ideal for cleanroom use.

Flat Bearings (Aerostatic)

- Diameters from 40 mm to 250 mm
- Nozzle selection and distribution tailored to requirements
- Optimized pocket layout for maximum performance
- Various protective coatings
- Versatile mounting interfaces

Linear Guides

- Straightness accuracy << 100 nm/100 mm
- Ideal positioning accuracy and resolution
- Various drive concepts possible (torque, belt, piezo, etc.)
- Standard lengths from 30 mm to 6000 mm

Rotary Tables

- Ideal positioning accuracy and resolution
- Various drive concepts possible (torque, belt, piezo, etc.)
- Custom designs available
- Also available with central bore
- Diameters up to 2000 mm and beyond
- Load capacity up to 120,000 N
- Radial/axial runout accuracy < 50 nm



Aerostatic linear guide



Aerostatic rotary table (RT100)



Assembly of aerostatic rotary table (RT800)



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