Standards

Guide columns and guide pins

Guide columns are cylindrical rods made from high-quality materials such as steel or hardened steel, which are installed in tools or moulds. Their main function is to ensure the precise vertical alignment of moving parts. They serve as stable guide elements that improve both the motion control and the stability of the tool or mould. Guide columns are typically manufactured with a high-precision surface to minimise friction and enable smooth movement.
Guide pins, on the other hand, are cylindrical pins that are used in combination with guide columns. They are mounted on the moving parts of a tool or mould and fit precisely into the holes in the guide columns. This combination enables low-friction linear movement and prevents lateral displacement of the parts. To minimise wear and tear, guide pins are also made of hardened steel.

Advantage:

- Precision

- Repeatability

-- Longevity

Ball guide and ball guide pin

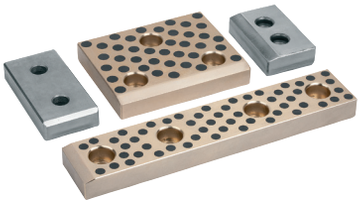
The ball guide technology is based on the use of recirculating ball tracks or recirculating ball bushes that are mounted on special guide rails. Balls or ball rollers are located between the tracks or bushes and the guide rails to enable low-friction movement. These ensures precise linear movement of moving parts in tools, moulds and machines.
Ball guide pins are a variation of this technology where recirculating ball tracks are mounted on pins. There are also balls or ball rollers between the tracks and the pins. This arrangement enables precise linear movement and is often used for applications that require compact designs.

Guide bushes and guide tubes

Guide bushes are usually made of hardened steel or other wear-resistant materials. They are installed in holes or recesses in tools, moulds or machine parts. The main task of guide bushes is to control the linear movement of moving parts and minimise lateral displacement. This enables smooth and precise movements that ensures repeatable production processes and high quality standards.
In combination with guide columns or guide pins, guide bushes enable complex guidance of tool movements, which is a particular requirement in injection moulds, punching tools and other precision applications. The surface finish of guide bushes is often to high precision in order to minimise friction and ensure a long service life.

Maintenance-free bearing elements

Maintenance-free bronze bearing elements with graphite inserts represent an advanced solution in tool and mould making. These specially developed components offer an excellent combination of wear resistance, low-friction movement and the ability to function without additional lubrication. These bearing elements consist of a bronze body impregnated with graphite inserts. This combination gives the elements high mechanical strength and excellent resistance to loads and impacts. The graphite inserts act as self-lubricating elements that help to minimise friction and thus reduce wear on bearing elements and moving parts.



Possible combinations of the various standard parts