

supfina

Superfinishing-Machine

Supfina BallFlex



**For machining
valve balls and
spherical bearings**



Superfinish

For machining valve balls and spherical bearings

The Supfina BallFlex 728 is a versatile, high-precision ball finishing machine offering both between centers and centerless clamping options. It is available for spherical workpieces up to 800 mm in diameter.

As an option, in-process gauging is available to ensure accurate control of stock-removal.

NC drives position the workpiece automatically to the superfinishing tools with the utmost accuracy.

- Infinitely adjustable tool speed with digital drive technology
- NC controlled positioning of both tool and workpiece
- Controlled stock-removal process with in-process gauging
- Workpiece clamping between centers or centerless
- Exceptionally rigid construction
- Superfinish know-how



supfina BallFlex 728

Type:	Workpiece-Ø:	Clamping:
A	8–80 mm	Centerless
B	40–400 mm	Centerless or between centers
C	80–800 mm	Between centers

Our system features

⇒ your benefit

NC controlled superfinishing unit

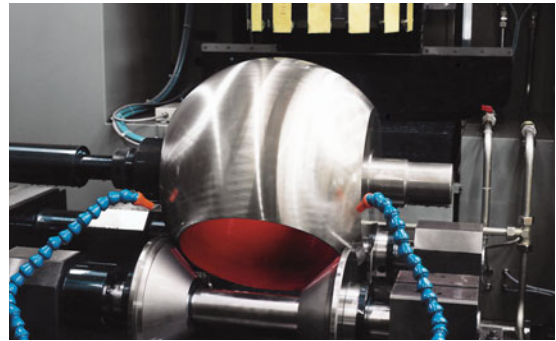
- ⇒ Geometrically perfect ball machining using cup wheels
- ⇒ Cycle-dependent setting of tool speed
- ⇒ Automatic positioning Workpiece – tool
- ⇒ Control of the stock-removal process with in-process gauging
- ⇒ Generates optimum surface quality
- ⇒ Improved tool life

Flexible part clamping options

- ⇒ Rapid resetting
- ⇒ Limited tooling

Large working range, few change parts

- ⇒ Suitable for any batch size
- ⇒ Fast return on your investment



Machining of balls of up to 400mm diameter

Supfina's BallFlex 728 combines an extremely sturdy design with superfinishing units that have been optimized for machining spherical surfaces. Machining of both valve balls and spherical plain bearings is supported. Spherical cups and valve bushings can also be superfinished.

The high-performance cup-wheel spindles are automatically positioned relative to the workpiece. The keys to ideal spherical geometries and optimum surface properties are the integrated stock removal control and in-process gauging functions.

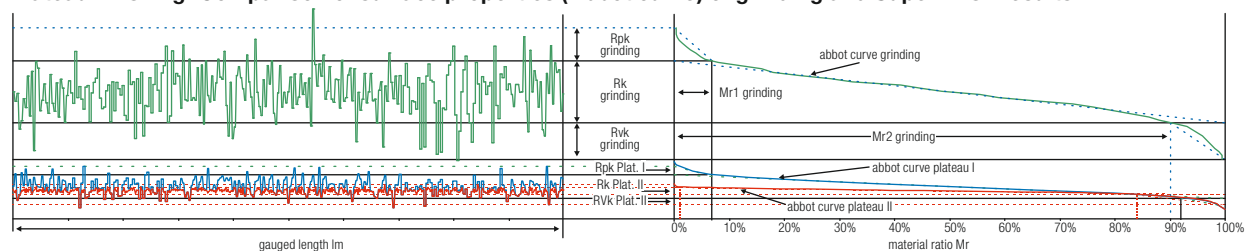
Flexible clamping and centring systems and a minimum of tooling parts cover a broad working range. The Supfina BallFlex 728 relies on modules which have been developed and optimized over decades for fast, simple and accurate resetting to a new workpiece.

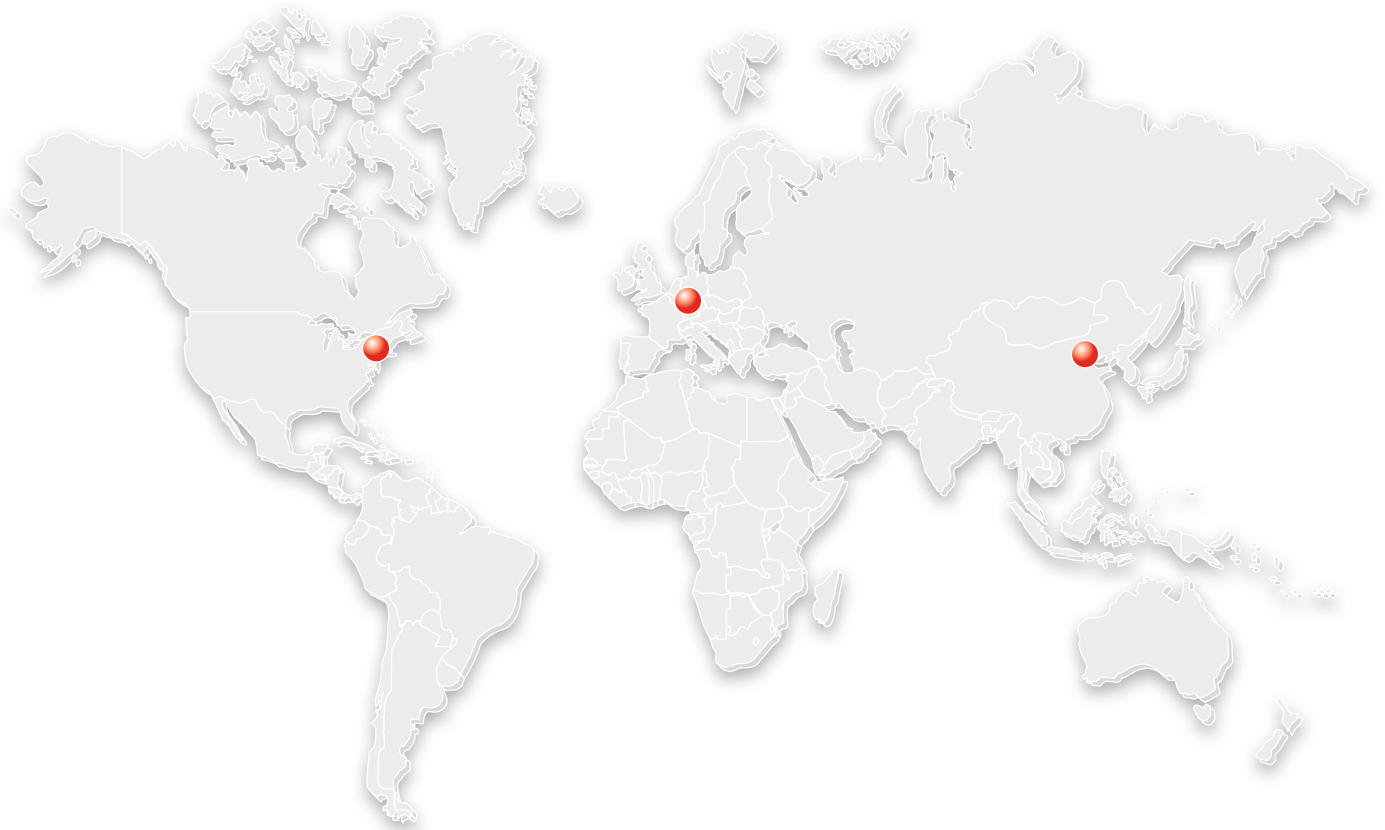
Due to the intelligent design, set-up times of less than 20 minutes are achieved, supported by NC controlled adjusting axes.



Workpieces of only 8mm diameter can also be machined.

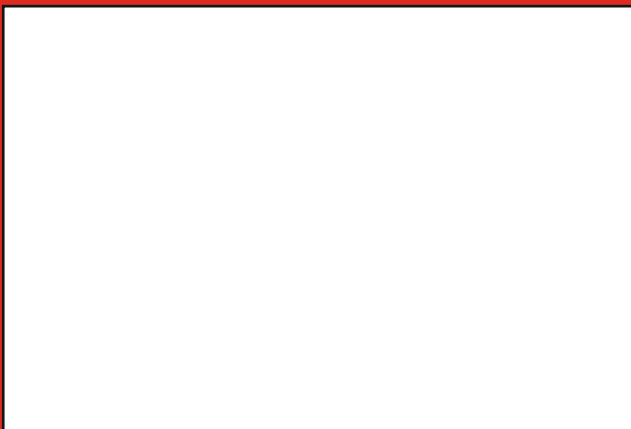
Plateau finishing: Comparison of surface properties (Abbot curve) of grinding and Superfinish results





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Surface Finishing Systems
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