



# SUPERFINISH

## Machining of camshafts

Designed for the single- or two-stage machining of cams, bearings and sealing seats with superfinishing stones. Alternatively, the combined machining of the cams with superfinishing stones can be carried out while the bearings and sealing seat are machined with a superfinishing tape.

- Machine design based on standard subassemblies
- Superfinishing units arranged horizontally opposite to each other
- Machining takes place on the rotating, oscillating workpiece

Loading and unloading system:

- With walking beam or cyclical chain conveyor
- By shuttle
- Gantry loader



### supfina 668

Max. workpiece length:

600 mm

Max. workpiece  $\varnothing$ :

80 mm

# supfina 668



*Stone machining of cams using specially developed oscillating stone holders for the prevention of profile deformations.*

The Supfina 668 was developed as a versatile superfinishing machine for the machining of camshafts between centers.

Thanks to its modular design, it can be equipped for:

- the machining of cams and bearings with stones
- the tape machining of cams and bearings
- the combined machining of e.g. cams with stones and bearings with tape

As a result of the exceptionally slim configuration of the superfinishing modules, even shafts with very narrow center distances of the cams can be machined in a single station. Rapid change-over for other types of workpiece.

The machine consists of the following principal components:

- Stationary workpiece headstock with infinitely adjustable drives for rotation and oscillation, and hydrostatically workpiece spindle
- Tailstock, adjustable manually or automatically
- Opposing guideways to accommodate the finishing modules with quick-change tool mounts
- Tape winding mechanism for used finishing tape
- Workpiece driver mechanism
- SPC system with technology data memory

## Camshaft

Single stage machining of eight cams with finishing stones and four bearings with a finishing tape.



## Results

|                        |   |
|------------------------|---|
| Preliminary machining: | Cams and bearings ground to Ra 0.4 $\mu\text{m}$ , Rmax 3.2 $\mu\text{m}$ |
| After superfinishing:  |   |
| Cams                   | Rmax < 2.5 $\mu\text{m}$ , CPK > 1.33                                     |
| Bearings               | Rmax 2 $\mu\text{m}$ , CPK > 1.33   |
| Cycle time:            | < 45 seconds  |