



## Centerless throughfeed and plunge-cut SUPERFINISHING of cylindrical parts

- Optimum improvement of roughness, roundness and bearing ratio
- Flexible application range for all rotational symmetrical workpieces
- Generation of special forms such as in case of antifriction bearing rollers
- Rapid retooling/change over
- Powerful pneumatic oscillator
- Mass-balanced oscillation drive
- High throughput comparable with centerless grinding process
- State-of-the-art control concept



### supfina 490

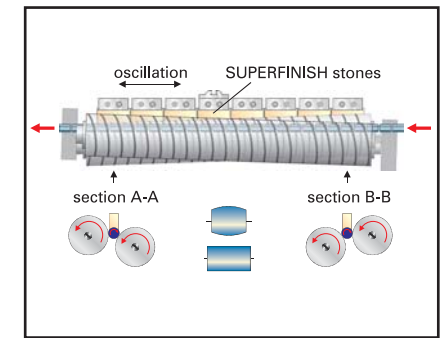
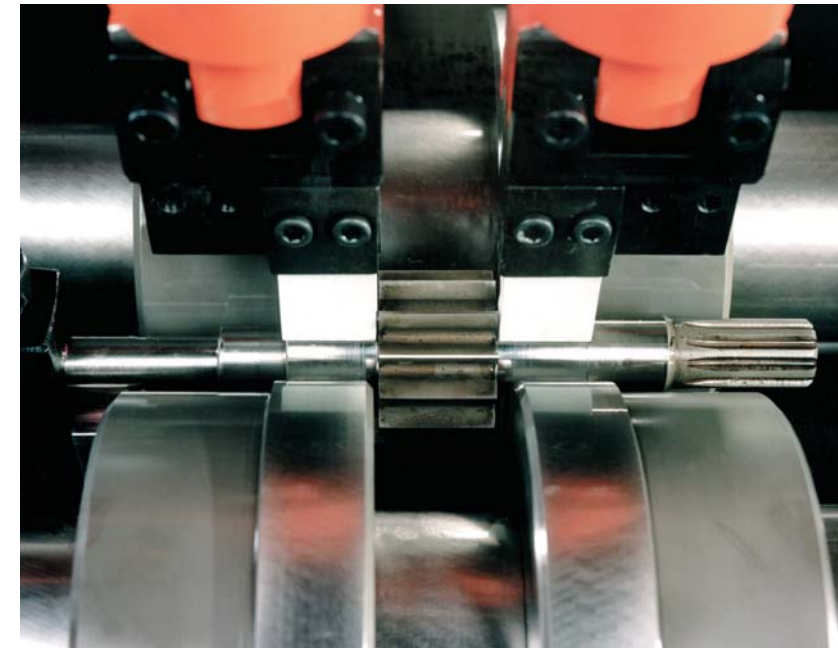
#### Working Range

Supfina 490: machining of cylinders, dia. range 4-70 mm  
 Supfina 491: machining of needles, dia. range 2-10 mm  
 Supfina 494: machining of cylinders with stepped ends, dia. range 8-25 mm  
 Supfina 495: plunge-cutting, dia. range 4-70 mm

#### Technical Data

- Oscillation frequency: 2000-2300 /min
- Oscillation amplitude: 3-6 mm
- Retooling time: 15 min
- Feeding height: 1000 +/- 20 mm
- Footprint: LxWxH 1580x900x1860 mm

## The Process



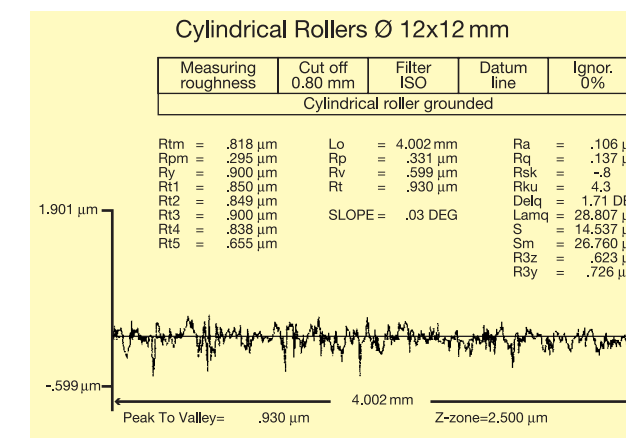
Centerless plunge-cut superfinishing of bearing surfaces on pump gears

The superfinishing machine Supfina 490 is the advanced development of the existing series which are in troublefree operation both within Germany and abroad for many years now and thus prove their operational reliability.

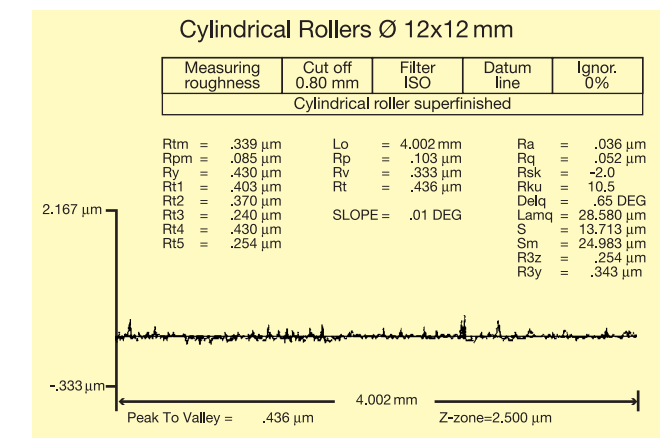
The following equipment is available to fit the different applications:

- Closed splash guard
- Automatic stone lifting
- Motor-operated height adjustment of the superfinishing attachment support
- Mechanical overlap stroke unit for superfinishing attachment
- Quick-change stoneholder system
- Split bearing brackets
- 7 stone guides (stations)
- Automatic feeding and outlet devices

## The Results



Roughness R<sub>z</sub>: 0,5 µm  
 Line profile: 1-2 µm convex  
 Roundness: 0,5 µm




Stock removal: 3 to 4 µm in circle area  
 Speed rate: 1 bis 4 m/min  
 CPK: 1,33


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For further information about  
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Superfinishing-Machines  
and Superfinishing Attachments  
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