



Superfinishing of ball bearing and roller bearings inner and outer races

RACEFLEX

# Supfina RaceFlex

Superfinishing of ball bearing and roller bearings inner and outer races



The Supfina RaceFlex can consistently produce rolling bearing races of the highest quality with maximum adaptability, even for prototypes or small-scale production. A combination of up to four different superfinishing units allows almost limitless flexibility.

- NC-controlled rotary oscillator with additional NC-controlled superimposition allows just about any surface to be finished
- Automatic contact-angle adjustment
- NC-controlled linear oscillator for machining any race profiles — e.g., concave, convex, straight, spherical, logarithmic — by NC-controlled superimposition
- Infinitely variable oscillation frequency
- NC-controlled pressure rollers
- NC-controlled external centering
- NC-controlled centering mandrels for bore centering
- Automatic or manual loading and unloading
- Control with digital drives for linear and rotary motion
- Single- or multi-stage machining with stone indexing
- Vertical spindle and controlled work feeding to avoid handling damage
- Combination stone/tape superfinishing

## Supfina RaceFlex

Workpiece diameter	Workpiece width
30 – 200 mm	5 – 75 mm
50 – 650 mm	8 – 100 mm
100 – 800 mm	20 – 200 mm
600 – 1600 mm	50 – 500 mm



The powerful rotary and linear oscillator systems for the raceway finishing operation can be combined with tape and stone finishing units for raceways, outer diameters, and flanges, as well as cup-wheel spindles.

The clamping and centering systems — not to mention the workpiece drive — are equally flexible. Supfina uses only proven modules, optimized over decades, that can be quickly adapted for use on any new workpiece.

The intelligent design, supported by NC-controlled adjustment axis, achieves setup times of less than 20 minutes.

## Impressive advantages

NC-controlled rotary and linear oscillator superfinishing units

- The greatest possible flexibility when machining any raceway geometries
- The highest quality is easily achieved, even for small batches and single parts

Stone indexing for multistage processes

- Creation of a surface with a high load-bearing capacity and good lubricating properties
- Improved tool life

Optional: Up to four superfinishing units on one machine

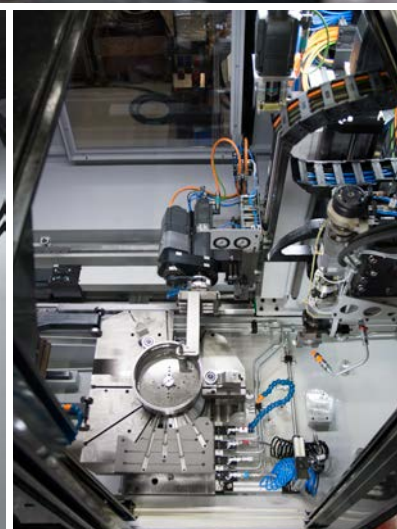
- Tape unit for the outer diameter
- Tape unit for the raceway
- Superfinishing units for tapered roller bearing lip
- Superfinishing units for cylindrical roller bearing flange
- Cup wheel spindle for spherical roller thrust bearing flange
- Cup wheel spindle for spherical roller bearing OR raceway

Flexibly adjustable centering and clamping systems

- Quick setup
- Few spare parts

Large working range and versatility for different workpiece types


- Ideal for small and medium batches
- Production flexibility makes it a sound investment




## Superfinish · FlatFinishing · FineGrinding · Double-DiskGrinding · SpeedFinish®

Supfina's superfinishing technology economically produces the highest-quality surfaces and geometries.

Supfina is your worldwide partner for precision surface finishing.

 Supfina Grieshaber GmbH & Co. KG  
Schmelzegrün 7 · 77709 Wolfach / Germany  
Phone +49 7834-866-0 · Fax +49 7834-866-200  
info@supfina.com · www.supfina.com

 Supfina Machine Company, Inc.  
181 Circuit Drive · N. Kingstown, RI 02852 / USA  
Phone +1 401-294-6600 · Fax +1 401-294-6262  
info@supfina.com · www.supfina.com

 Supfina Grieshaber GmbH & Co. KG  
Beijing representative Office  
DiYang Tower 1202B  
Chaoyang District Beijing 100027 / PR China  
Phone +86 84536-669 · Fax +86 84536-670  
supfina@126.com · www.supfina.com