PERFECT GEOMETRY AND SURFACE FOR YOUR WORKPIECES

The Microfinish process is used whenever extremely high precision as well as optimum geometry and surface quality are important. The super finishing technique originated at Chrysler and was further developed by Thielenhaus under the brand name of MICROFINISH. It is based on a special honing method in which the honing tools are processed in a form of their respective hardness and all the oscillation movements.

MICROFINISH-PROCESSED WORK PIECES ARE DISTINGUISHED BY
- Enhanced resilience and service life
- Increased percentage contact area
- Reduced dimensions
- Savings in material and weight
- Augmented running precision
- Elimination of friction losses
- Reduced wear
- Improved energy efficiency

Be it cylindrical, eccentric, conical, planar, concave, convex or spherical – the Microfinish procedure is capable of creating the most favourable microgeometrical and macrogeometrical surface profile for every processing situation and material.

THE ADVANTAGE FOR YOU IS A COMPREHENSIVE SERVICE FROM A SINGLE SOURCE

An extensive range of services ensures the best possible production quality and the highest availability of our Microfinish machine tools. From consultation, sample processing, project planning, process development, documentation, operator training as well as repairs and inspections, the 24/7 hotline and service points in Europe, North and South America, India and China ensure fast customer care worldwide at all times.

FURTHER SUPERFINISHING SOLUTIONS

MICROFINISH COMPACT
MACHINES AND ATTACHMENT DEVICES

TECHNOSTAL BENEFITS FOR YOU

Microfinish attachment devices offer the possibility of carrying out additional or secondary finishing processes in front of, behind, or finish side grinding operations. The Microfinish attachment device is an add-on component for a machine tool which can be attached to the tailstock or sump of the machine. It is based on the Microfinish process and represents the perfect completion of finishing operations. For this purpose, the attachment device is clamped onto the supporting machine and the Microfinish process carried out as a final operation. The attachment device can be either used flat or conical as well as pointed or round, depending on the finishing job to be carried out. The resulting surface profile can be finished on both sides of the work piece even when it is in its installed state and thus reconditioned.

EXTREME PRECISION FOR A SUSTAINABLE WORLD – MANUFACTURED AROUND THE WORLD
PERFECT GEOMETRY AND SURFACE FOR YOUR WORKPIECES

The Microfinish process is used whenever extremely high precision as well as optimum geometry and surface quality are important. The super finishing technique was developed at the end of the 1970s, it is based on a special honing method in which the honing tools are positioned in terms of their composition and hardness and of their oscillation movements.

MICROFINISH-PROCESSED WORK PIECES ARE DISTINGUISHED BY

- Enhanced resilience and service life
- Increased percentage contact area
- Reduced dimensions
- Savings in material and weight
- Augmented running precision
- Elimination of friction losses
- Reduced wear
- Improved energy efficiency

Be it cylindrical, eccentric, conical, planar, spherical, or even complex shapes – the Microfinish procedure is capable of creating the most favourable microgeometrical and macrogeometrical surface profile for every processing situation and material.

THE ADVANTAGE FOR YOU IS A COMPREHENSIVE SERVICE FROM A SINGLE SOURCE

An extensive range of services ensures the best possible production quality and the highest availability of our Microfinish machines, be it in terms of sales, service processing, supply, repair, maintenance, or new plant planning, in Europe, North and South America, India and Asia. Thielenhaus ensures customer care worldwide at all times.

FURTHER SUPERFINISHING SOLUTIONS

- Grinding
- Honing
- Beveling of edges
- Special shot blasting
- Abrasive jets
- Electro-chemical operations
- Ultrasonic processes
- Shot peening
- Diagonally shot peening

TECHNOLOGICAL BENEFITS FOR YOU

- Microfinish attachment allows the possibility of carrying out an extremely effective finish-lapping process without further machining operations, thus allowing for the formation of a superior surface condition, thus saving on machining and final costs; the attachment device is completely independent of the supporting machine

MICROFINISH ATTACHMENT DEVICES FOR A SUSTAINABLE WORLD – MANUFACTURED AROUND THE WORLD

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SUPERFINISHER CUBE 650

BASIC CONFIGURATION
- Loading/unloading: manual handling with stick lift
- Workpiece dimensions:
  - Max. workpiece diameter: 4 – 80 mm
  - Max. workpiece length: 400 mm
- Unit types:
  - SL50, KG50, KG50-100M, KG50-DB, KG100
- Unit configuration:
  - With filter cartridge: 1 – 30 μ
  - With detergent trolley

UNIT DATA
- Loading/unloading: 3-axis handling with double-gripper and standard pneumatic loader/unloader
- Spindle rotation: 10 – 3,000 rpm
- No. of programs: 99
- Freely programmable zones: 10 per spindle

OPTIONS
- Tape contact roller
- Tape contact roller width: 100 mm (150 mm)
- Contact pressure: 300 – 1,800 N (1 – 6 bar), optional 200 – 1,200 N
- Infeed move: standard 40 mm, optional 70, 100 mm
- Automated tape feed: 10 – 100 mm/min.
- Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF70

BASIC CONFIGURATION
- Spindle: 400 V, 50 Hz
- Power / air supply:
  - Electric: 100 – 260 VAC, 4/6.4/11.4 Hz
  - Pressure: 1 bar

OPTIONS
- Stone height: 3 – 28 mm, clampable
- Stone width: max. 70 mm
- Contact pressure: 80 – 480 N (1 – 6 bar), optional 200 – 1,200 N
- Infeed move: standard 40 mm, optional 70, 100 mm
- Oscillation stroke: standard +/- 1 mm
- Oscillation frequency: 300 – 2,000 DH/min.

Notes:
- Integration into existing machine control possible, but not necessary
- Stone height: adjustable up to 20 mm
- Stone width: adjustable up to 70 mm
- Stone contact pressure: adjustable up to 480 N
- Linear drive: 3 axes, tool changer, 16 bars
- Weight: approx. 100 kg
- Interface: 20 mm adaptor conventional lathe
- Stroke: 50 mm
- Thrust: adjustable up to 140 N (6 bar)
- Torque: 7.5 Nm (840 – 2,430 min⁻¹, infinitely adjustable)
- Rotational speed: approx. 0 – 5,600 min⁻¹

POWER / AIR SUPPLY
- Electric: 100 – 260 VAC, 4/6.4/11.4 Hz, 3A (N, F, R)
- Pressure: 1 bar

Notes:
- Power / air supply:
  - Electric: 100 – 260 VAC, 4/6.4/11.4 Hz, 3A (N, F, R)
  - Pressure: 1 bar

Options:
- Oscillation drive for vertical linear motion into machine
- Various control sensors
- Special stone contact rollers
- Special tool holders
**SUPERFINISHER CUBE 650**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

**POWER / AIR SUPPLY**
- Weight: approx. 1,500 kg
- Work piece diameter: 4 – 80 mm
- No. of programs: 200

**UNIT CONFIGURATION**
- With filter cartridge: 1 – 30 μ
- With detergent trolley

**SUPERFINISHER POWERCUBE 400**

**BASIC CONFIGURATION**
- Loading/unloading: 3-axis handling with double-gripper and vacuum system
- Flange: 600 mm travel with slide table
- No of units: max. 6 units

**POWER / AIR SUPPLY**
- Weight: 13.2 kg
- Control voltage: 24 VDC
- Hardness: standard 65 ShA, optional 35, 50, 90 ShA

**OPTIONS**
- Tape contact roller
- Tape contact roller width: max. 50 mm
- Contact pressure: max. 700 N
- Infeed move: 30 mm
- Automated tape feed: 0 – 150 mm/min.
- Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)
- Oscillation frequency: 300 – 1,400 double-strokes/min.

**STONE-FINISHER SF70**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB

**POWER / AIR SUPPLY**
- Weight: 9.3 kg
- Control voltage: 24 VDC
- Stone height: 3 – 28 mm, clampable
- Stone width: max. 70 mm
- Contact pressure: 80 – 480 N (1 – 6 bar)
- Infeed move: standard 40 mm, optional 70, 100 mm
- optional +/- 0.5; +/- 1.5; +/- 2 mm
- Oscillation stroke: standard +/- 1 mm
- Oscillation frequency: 300 – 2,000 DH/min.

**TAPE-FINISHER SL50**

**BASIC CONFIGURATION**
- Loading/unloading: 3-axis handling with double-gripper and vacuum system
- Filter cartridge: 1 – 30 μ
- With detergent trolley

**POWER / AIR SUPPLY**
- Weight: 14.5 /16.5 kg

**OPTIONS**
- Special tape contact rollers
- Single-side mounted tape contact roller
- Direct integration into machine with sensors

**TAPE-FINISHER SL100**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of programs: max. 6 units
- Unit types: SL50, KG50, SL50-100M

**POWER / AIR SUPPLY**
- Weight: 38 kg

**OPTIONS**
- Various control sensors
- Clamping cylinder for vertical integration into machine

**TAPE-FINISHER KG50/KG50-DB**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of programs: max. 6 units
- Unit types: SL50, KG50, SL50-100M

**POWER / AIR SUPPLY**
- Weight: 38.0 kg

**OPTIONS**
- Special tape contact rollers
- Direct integration into machine with sensors

**TAPE-FINISHER KG100**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of programs: max. 6 units
- Unit types: SL50, KG50, SL50-100M

**POWER / AIR SUPPLY**
- Weight: approx. 35 kg

**OPTIONS**
- Special stone-holders
- Direct integration into machine with sensors

**STONE-FINISHER SF70**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB

**POWER / AIR SUPPLY**
- Weight: approx. 1,500 kg
- Work piece diameter: 4 – 80 mm
- No. of programs: 200

**UNIT CONFIGURATION**
- With filter cartridge: 1 – 30 μ
- With detergent trolley

**SUPERFINISHER CUBE 650**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

**POWER / AIR SUPPLY**
- Weight: approx. 1,500 kg
- Work piece diameter: 4 – 80 mm
- No. of programs: 200

**UNIT CONFIGURATION**
- With filter cartridge: 1 – 30 μ
- With detergent trolley

**SUPERFINISHER POWERCUBE 400**

**BASIC CONFIGURATION**
- Loading/unloading: 3-axis handling with double-gripper and vacuum system
- Flange: 600 mm travel with slide table
- No of units: max. 6 units

**POWER / AIR SUPPLY**
- Weight: 13.2 kg
- Control voltage: 24 VDC
- Hardness: standard 65 ShA, optional 35, 50, 90 ShA

**OPTIONS**
- Tape contact roller
- Tape contact roller width: max. 50 mm
- Contact pressure: max. 700 N
- Infeed move: 30 mm
- Automated tape feed: 0 – 150 mm/min.
- Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)
- Oscillation frequency: 300 – 1,400 double-strokes/min.

**STONE-FINISHER SF70**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB

**POWER / AIR SUPPLY**
- Weight: approx. 1,500 kg
- Work piece diameter: 4 – 80 mm
- No. of programs: 200

**UNIT CONFIGURATION**
- With filter cartridge: 1 – 30 μ
- With detergent trolley

**SUPERFINISHER CUBE 650**

**BASIC CONFIGURATION**
- Loading/unloading: manual handling with slide table
- No of units: max. 6 units
- Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

**POWER / AIR SUPPLY**
- Weight: approx. 1,500 kg
- Work piece diameter: 4 – 80 mm
- No. of programs: 200

**UNIT CONFIGURATION**
- With filter cartridge: 1 – 30 μ
- With detergent trolley

**SUPERFINISHER POWERCUBE 400**

**BASIC CONFIGURATION**
- Loading/unloading: 3-axis handling with double-gripper and vacuum system
- Flange: 600 mm travel with slide table
- No of units: max. 6 units

**POWER / AIR SUPPLY**
- Weight: 13.2 kg
- Control voltage: 24 VDC
- Hardness: standard 65 ShA, optional 35, 50, 90 ShA

**OPTIONS**
- Tape contact roller
- Tape contact roller width: max. 50 mm
- Contact pressure: max. 700 N
- Infeed move: 30 mm
- Automated tape feed: 0 – 150 mm/min.
- Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)
- Oscillation frequency: 300 – 1,400 double-strokes/min.
### SUPERFINISHER CUBE 650

**BASIC CONFIGURATION**
- loading/unloading: manual handling with sliding carriage
- workpiece length max.: 1,000 mm
- with filter cartridge: 1 – 30 μ
- with detergent trolley: axis

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

### SUPERFINISHER POWERCUBE 400

**BASIC CONFIGURATION**
- loading/unloading: manual handling with double-throw and automatic loading/unloading
- workpiece length max.: 800 mm
- with filter cartridge: 1 – 30 μ

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

### TAPE-FINISHER SL50

**BASIC CONFIGURATION**
- loading/unloading: manual handling with sliding carriage
- Max. workpiece length: 400 mm
- with filter cartridge: 1 – 30 μ

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, SL50-100M

### TAPE-FINISHER SL100

**BASIC CONFIGURATION**
- loading/unloading: manual handling with sliding carriage
- Max. workpiece length: 400 mm
- with filter cartridge: 1 – 30 μ

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, SL50-100M

### TAPE-FINISHER KG50/DE50-DB

**BASIC CONFIGURATION**
- loading/unloading: manual handling with sliding carriage
- Max. workpiece length: 400 mm
- with filter cartridge: 1 – 30 μ

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, SL50-100M

### STONE-FINISHER SF70

**BASIC CONFIGURATION**
- loading/unloading: manual handling with sliding carriage
- Max. workpiece length: 400 mm
- with filter cartridge: 1 – 30 μ

**UNIT CONFIGURATION**
- Max. workpiece diameter: 4 – 80 mm
- Max. workpiece length: 750 mm (950 mm)
- No. of programs: 200
- Spindle rotation: 300 – 3,000 rpm

**MACHINE DATA**
- Unit types: SL50, KG50, SL50-100M

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### Options

- **Power supply**
  - **Superfinisher Cube 650**
    - Voltage: 230V / 50 Hz
    - Weight: 1,500 kg
    - Spindle rotation: 300 – 3,000 rpm

- **Superfinisher Powercube 400**
  - Voltage: 230V / 50 Hz
  - Weight: approx. 1,500 kg

- **Tape-finisher SL50**
  - Voltage: 24 VDC
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher SL100**
  - Voltage: 24 VDC
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher KG50/DE50-DB**
  - Voltage: 24 VDC
  - Spindle rotation: 300 – 3,000 rpm

- **Stone-finisher SF70**
  - Voltage: 24 VDC
  - Spindle rotation: 300 – 3,000 rpm

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### Technical Details

- **Superfinisher Cube 650**
  - Voltage: 230V / 50 Hz
  - Weight: approx. 1,500 kg

- **Superfinisher Powercube 400**
  - Voltage: 230V / 50 Hz
  - Weight: approx. 1,500 kg

- **Tape-finisher SL50**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher SL100**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher KG50/DE50-DB**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Stone-finisher SF70**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

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### Specifications

- **Superfinisher Cube 650**
  - Voltage: 230V / 50 Hz
  - Weight: approx. 1,500 kg
  - Spindle rotation: 300 – 3,000 rpm

- **Superfinisher Powercube 400**
  - Voltage: 230V / 50 Hz
  - Weight: approx. 1,500 kg
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher SL50**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher SL100**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Tape-finisher KG50/DE50-DB**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm

- **Stone-finisher SF70**
  - Voltage: 230V / 50 Hz
  - Spindle rotation: 300 – 3,000 rpm
Pneumatic: 1 x 6 bar
Elektric: 3 x 400 V, 50/60 Hz, 6 A, (L1, L2, L3, N, PE)

POWER / AIR SUPPLY

Weight: approx. 1,500 kg

No. of programs: 200

Freely programmable zones: 10

Spindle rotation: 300 – 3,000 rpm

MACHINE DATA

No. of units: max. 6 units

Unit types: SL50, KG50, KG50-100M, KG50-DB, KG100

UNIT CONFIGURATION

with filter cartridge: 1 – 30 μ

With detergent trolley

axis: s max. 650 mm

program. longitudinal

Plunge-cut machine with

SUPERFINISHER CUBE 650

BASIC CONFIGURATION
loading/unloading: manual hardwired switch change

program. signalled

pow.: 400 V / 50 Hz

unit size: 600 x 600 x 800 mm

with filter cartridge: 1 – 30 μ

UNIT CONFIGURATION
size: 160 x 560 x 560 mm
No. of units: max. 6

MANUFACTURE DATA

Spindle rotation: 200 – 2,000 rpm

Spindle power: approx. 6 kW

Spindle diameter: 200 mm

Spindle travel: 200 mm

Power: 240 V, 50/60 Hz

POWER / AIR SUPPLY

Weight: 38 kg

Control voltage: 24 VDC

hardness: 35, 50, 65, 80 ShA

Tape contact roller

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 1,400 double-strokes/min.

TAPE-FINISHER SL100

Blasting frequency: 300 – 1,500 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 1,400 double-strokes/min.

TAPE-FINISHER KG50/KE50-DB

Blasting frequency: 300 – 1,500 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 1,400 double-strokes/min.

TAPE-FINISHER KG100

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 1,400 double-strokes/min.

STONE-FINISHER SF70

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SFR

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF60

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF50

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF30

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF20

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SF10

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SFB

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.

STONE-FINISHER SCF

Blasting frequency: 300 – 2,000 double-oscillations

Oscillating frequency: 1 – 2 mm

Automated tape feed

Tape contact roller:

Tape contact roller width: max. 50 mm

Contact pressure: max. 700 N

Infeed move: 30 mm

Automated tape feed: 0 – 150 mm/min.

Oscillation stroke: +/-2 mm (up to max. +/- 3 mm)

Oscillation frequency: 300 – 2,000 DH/min.
The Microfinish process is used wherever extremely high precision as well as optimum geometry and surface quality are important. The superfinishing procedure developed at Chrysler and further developed by Thielenhaus under the brand name of MICROFINISH is based on a special honing method in which the honing tools are optimised for the workpiece in terms of their composition and hardness, and of their oscillation movements.

MICROFINISH-PROCESSED WORK PIECES ARE DISTINGUISHED BY
- Enhanced resilience and service life
- Increased percentage contact area
- Reduced dimensions
- Savings in material and weight
- Augmented running precision
- Elimination of friction losses
- Reduced wear
- Improved energy efficiency

Be it cylindrical, conical, planar, concave, convex or spherical – the Microfinish procedure is capable of creating the most favourable microgeometrical and macrogeometrical surface profile for every processing situation and material.

THE ADVANTAGE FOR YOU IS A COMPREHENSIVE SERVICE FROM A SINGLE SOURCE
An extensive range of services ensure the best possible production quality and the highest availability of our Microfinish machines. From consultation, sample processing, project planning, process development, documentation, operator training, repairs and inspections to 24/7 customer care. The Thielenhaus service points in Europe, North and South America, India, China and Brazil ensure fast customer care worldwide at all times.

FURTHER SUPERFINISHING SOLUTIONS
- Finishing
  - Grinding
  - Honing  Bearings of all types  Flat and spherical surfaces  Shafts of all types
- Microfinish attachment devices offer the possibility of carrying out quality improvement or structuring for various materials and workpieces: Opti-Finish, DI-2000, MC-150, Multifunctional Microfinish, Microcoating, Microfinish Compact and Microfinish Attachment System.
- MICROFINISH COMPACT MACHINES AND ATTACHMENT DEVICES
  - Technological benefits for you
    - Microfinish attachment device offers the possibility of achieving very high-quality microstructures on various workpieces and manufacturing parts or small lots.
    - The work pieces is rotated and the attachment device is operated via the supporting machine, while the oscillating honing tools are moved by the control device based on the vibrations of the work piece. The oscillation frequency can be up to 2000 double strokes per minute. In this way, the work piece is given a microstructure with a defined microstructure which can be fixed with the device in their installed state and thus reconditioned.

EXTREME PRECISION FOR A SUSTAINABLE WORLD – MANUFACTURED AROUND THE WORLD
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PERFECT GEOMETRY AND SURFACE FOR YOUR WORKPIECES

The Microfinish process is used whenever extreme high precision as well as optimum geometry and surface quality are important. The superfine finish is achieved by using the Microfinish process. It can be applied to any component in a variety of methods, including in-process honing, post-honing, or as a finishing operation. The Microfinish process is characterized by its high precision, high surface quality, and high efficiency.

MICROFINISH-PROCESSED WORK PIECES ARE DISTINGUISHED BY

- Enhanced resilience and service life
- Increased percentage contact area
- Reduced dimensions
- Savings in material and weight
- Augmented running precision
- Elimination of friction losses
- Reduced wear
- Improved energy efficiency

Be it cylindrical, eccentric, conical, planar, concave, convex, or spherical – the Microfinish procedure is capable of creating the most favourable microgeometrical and macrogeometrical surface profile for every processing situation and material.

THE ADVANTAGE FOR YOU IS A COMPREHENSIVE SERVICE FROM A SINGLE SOURCE

An extensive range of services ensures the best possible quality and the highest availability of our Microfinish Technology. This includes consultation, sample processing, project planning, process development, documentation, operator training, as well as repairs and inspections. The 24/7 hotline and service points in Europe, North and South America, India, and China ensure fast customer care worldwide at all times.

FURTHER SUPERFINISHING SOLUTIONS

- Grinding
- Polishing
- Buffing of all types
- Surface treatments
- Deburring of all types

EXTREME PRECISION FOR A SUSTAINABLE WORLD – MANUFACTURED AROUND THE WORLD

Microfinish attachment devices offer the possibility of carrying out finishing and quality improvement on structural, functional, and service-related components, cost-effectively, without the need for new tools. The attachment device is comprehensively tested before it is brought to market. The Microfinish process can be used for components of all hardness and geometry, including parts and small lots.

The work piece is rotated and the attachment device is operated via the supporting machine, while the oscillation frequency and the contact pressure are regulated by the control unit of the attachment device. Depending on the device, the oscillation frequency can be up to 2000 double strokes per minute. All rotationally symmetrical work pieces can be finished with the devices in their installed state and thus cost-effectively.

FURTHER SUPERFINISHING SOLUTIONS

- Finishing Solutions
- Grinding
- Polishing
- Buffing of all types
- Surface treatments
- Deburring of all types

UK & Ireland Agent

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