

THIELENHAUS
MICROFINISH



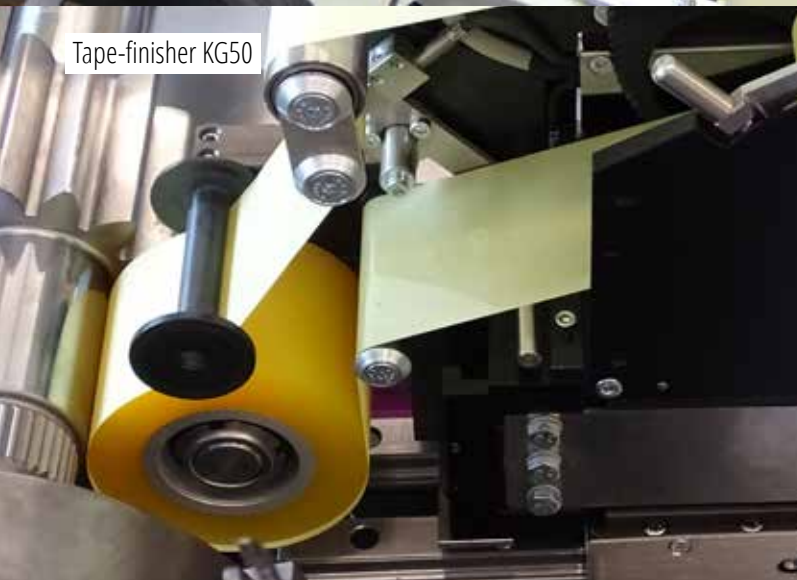
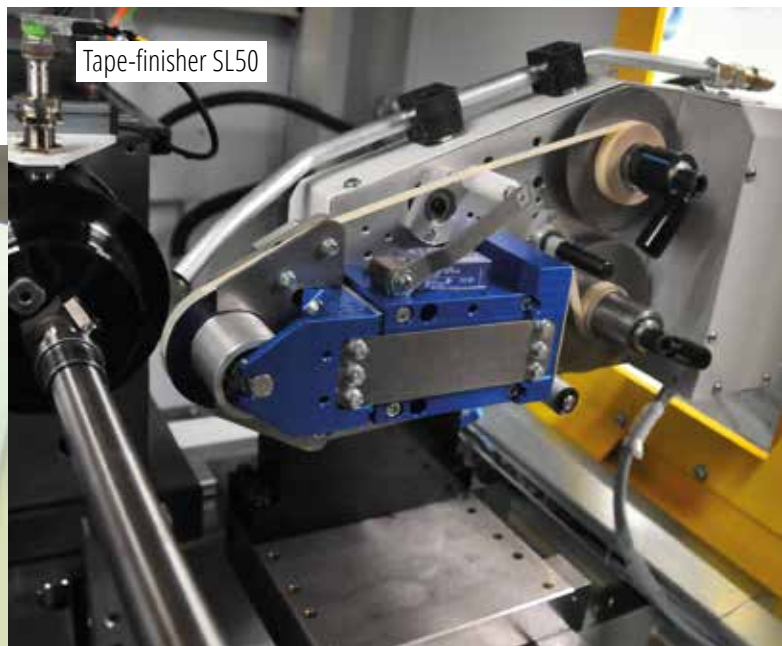
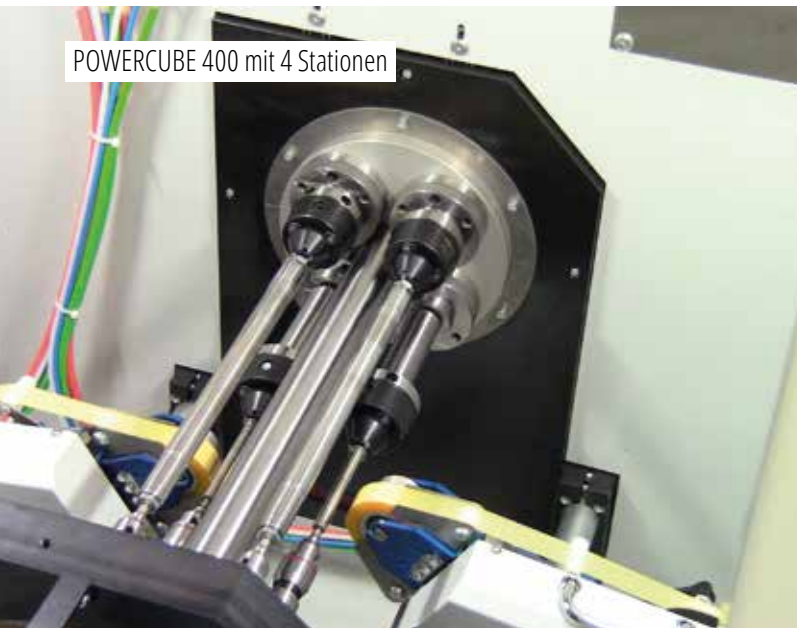
Microfinish Compact

Machines and Attachment Devices

TECHNOLOGICAL BENEFITS FOR YOU

Microfinish attachment devices offer the possibility of carrying out quality improvement or structuring surface superfinishing operations cost-effectively on a lathe. Once the workpiece has been hard turned, the attachment device is clamped onto the supporting machine and the Microfinish processing carried out as a final operation. This process step can also be done directly after hardening, so that a lathe equipped in this way functions as a Microfinish machine for individual parts or small lots.

The workpiece is rotated and the attachment device is operated via the supporting machine, while the oscillation of the tool 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 2,000 double strokes per minute. All rotationally symmetrical workpieces of any hardness that can be fixed between spikes can be processed this way. Even big calendar rolls in the paper, textile and plastics industries can be finished with the devices in their installed state and thus reconditioned.



YOUR FASTEST ACCESS TO THE WORLD

Make use of the benefits of surface superfinishing without



**Modular & without
setting**



**Modularly
configurable**



SUPERFINISHER CUBE EVO

BASIC CONFIGURATION

Loading / unloading: manual, handling with integrated intake and discharge

Plunge-cut machine with program. longitudinal axis: customized

Detergent trolley with filter cartridge: 1 – 30 μ

UNIT CONFIGURATION

Unit types: customized
No. of units: max. 6 units

MACHINE DATA

Spindle rotation: 0 – 6,000 rpm
Freely programmable zones: 50
No. of programs: 500
Max. workpiece length: customized
Workpiece diameter: customized
Weight: approx. 2,300 kg with handling

POWER / AIR SUPPLY

Electric: 3 x 400 V, 50/60 Hz, 6 A, (L1, L2, L3, N, PE)
Pneumatic: 1 x 6 bar



SUPERFINISHER POWERCUBE 400

BASIC CONFIGURATION

Loading / unloading: 3-axis handling with double-gripper and special pneumatic loader/unloader

Plunge-cut machine with program. longitudinal axis: max. 400 mm travel

Detergent trolley with filter cartridge: 1 – 30 μ

UNIT CONFIGURATION

Unit types: SL50, KG50, SL50-100M
No. of units per station: max. 2 units with SL50, max. 3 with KG50

MACHINE DATA

Spindle rotation: 10 – 3,000 rpm
Freely programmable zones: 10 per spindle
No. of spindles: 4 or 6
No. of programs: 99
Max. workpiece length: 400 mm
Workpiece diameter: 4 – 50 mm
Weight: approx. 1,500 kg

POWER / AIR SUPPLY

Electric: 3 x 400 V, 50/60 Hz, 6 A, (L1, L2, L3, N, PE)
Pneumatic: 1 x 6 bar

OF MICROFINISH

ut straining your budget



Versatile & efficient



TAPE-FINISHER KG50 S

Oscillation frequency:	0 – 3,000 DH/min.
Oscillation stroke:	up to max. +/- 3 mm
Automated tape feed:	0 – 500 mm/min.
Advancing stroke:	variable
Working stroke:	25 mm
Contact pressure:	300 N / 480 N
Tape contact roller width:	50 mm
Tape contact roller hardness:	standard 65 ShA, optional 35, 50, 90 ShA
Control voltage:	24 VDC
Weight:	28 kg

POWER / AIR SUPPLY

Electric:	230 V / 50 Hz
Pneumatic:	6 bar

OPTIONS

- with/without working stroke
- Tape width



Light & flexible



TAPE-FINISHER SL50

Oscillation frequency:	300 – 1,400 double-strokes/min.
Oscillation stroke:	standard +/- 1 mm optional +/- 0.5; +/- 1.5; +/- 2 mm
Automated tape feed:	10 – 100 mm/min.
Infeed move:	standard 30 mm, optional 40 mm
Contact pressure:	50 – 300 N (1 – 6 bar)
Tape contact roller width:	max. 50 mm
Tape contact roller hardness:	standard 65 ShA, optional 35, 50, 90 ShA
Control voltage:	24 VDC
Weight:	13.2 kg

POWER / AIR SUPPLY

Electric:	100 – 260 VAC, 50/60 Hz, 6 A (L, N, PE)
Pneumatic:	1 x 6 bar

OPTIONS

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





**Ready to install
& space-saving**



**Ready to install
& space-saving**



TAPE-FINISHER SL100

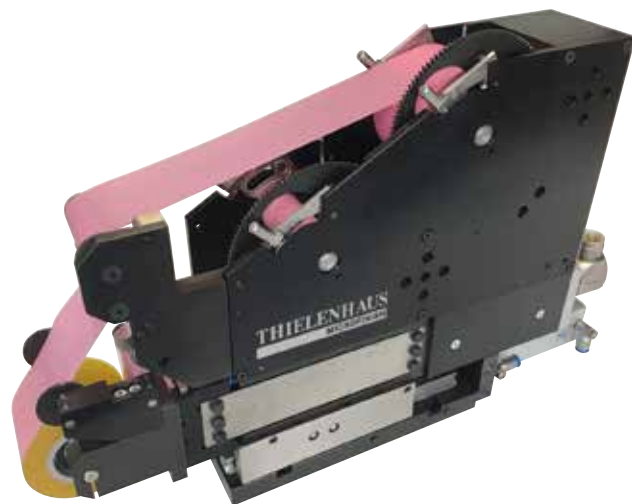
Oscillation frequency:	300 – 1,400 double-strokes/min.
Oscillation stroke:	+/- 2 mm (up to max. +/- 3 mm)
Automated tape feed:	0 – 150 mm/min.
Infeed move:	30 mm
Contact pressure:	max. 700 N
Tape contact roller width:	100 mm (150 mm)
Tape contact roller hardness:	35, 50, 65, 80 ShA
Control voltage:	24 VDC
Weight:	38 kg

POWER / AIR SUPPLY

Electric:	230V / 50 Hz
Pneumatic:	max. 0.7 bar

OPTIONS

- Control cabinet: Operation and regulation on device



TAPE-FINISHER KG50/KG50-DB

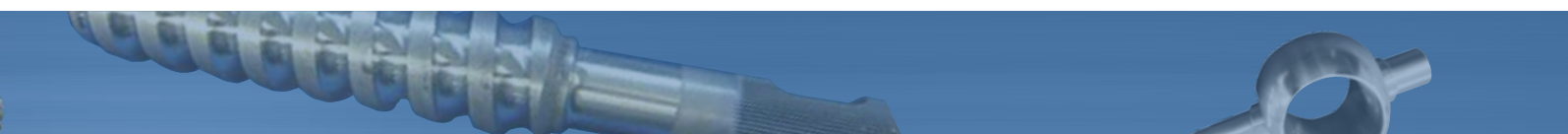
Oscillation frequency:	300 – 1,400 double-strokes/min.
Oscillation stroke:	standard +/- 1 mm optional +/- 0.5; +/- 1.5; +/- 2 mm
Automated tape feed:	10 – 100 mm/min, 2 x 10 – 100 mm/min
Infeed move:	standard 40 mm, optional 70, 100 mm
Contact pressure:	50 – 300 N (1 – 6 bar)
Tape contact roller width:	max. 50/2 x 25 mm, single-side mounted
Tape contact roller hardness:	standard 65 ShA, optional 35, 50, 90 ShA
Control voltage:	24 VDC
Weight:	14.5 / 16.5 kg

POWER / AIR SUPPLY

Electric:	100 – 260 VAC, 50/60 Hz, 6 A (L, N, PE)
Pneumatic:	1 x 6 bar/ 2 x 6 bar

OPTIONS

- Clamping cylinder for vertical integration into machine
- Various control sensors
- Special tape contact rollers

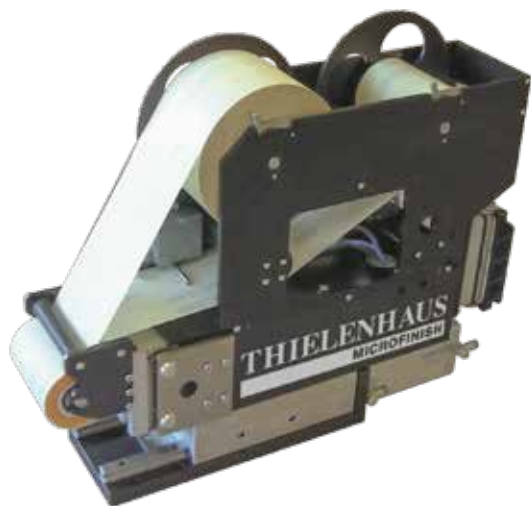




**Ready to install
& fast**



**Geometry-improving
& versatile**



TAPE-FINISHER KG100

Oscillation frequency:	300 – 2,000 double-strokes/min.
Oscillation stroke:	standard +/- 0 – 2,5 mm adjustable
Automated tape feed:	10 – 100 mm/min.
Infeed move:	standard 40 mm, optional 70, 100 mm
Contact pressure:	300 – 1,800 N (1 – 6 bar), optional 200 – 1,200 N
Tape contact roller width:	100 mm, double-side mounted
Tape contact roller hardness:	standard 65 ShA, optional 35, 50, 90 ShA
Control voltage:	24 VDC
Weight:	38.0 kg

POWER / AIR SUPPLY

Electric:	100 – 260 VAC, 50/60 Hz, 6 A (L, N, PE)
Pneumatic:	1 x 6 bar

OPTIONS

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



STONE-FINISHER SF70

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

POWER / AIR SUPPLY

Electric:	100 – 260 VAC, 50/60 Hz, 6 A (L, N, PE)
Pneumatic:	1 x 6 bar

OPTIONS

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



PERFECT GEOMETRY AND SURFACE FOR YOUR WORKPIECES

The Microfinish process is used wherever extremely high precision as well as optimum geometry and surface quality are important. The superfinishing procedure originated at Chrysler and was further developed by Thielenhäus under the brand name of MICROFINISH. It is based on a special micro-honing method in which the honing tools are optimised for the materials being processed in terms of their composition and hardness and of their oscillation movements.

MICROFINISH-PROCESSED WORKPIECES 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 machines. These include 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



Finishing • Grinding • Honing



Bearings of all types



Flat and spherical surfaces



Shafts of all types

The Power of Precision.



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