



PERFECT SURFACES THROUGH MASS FINISHING

OVERVIEW



THE DIFFERENT PROCESSES

Disc finishing

A world-leading mass finishing process, in which a rotating base plate sets workpieces and granulate in motion in a toroidal stream. The very intense finishing effect is up to 20 times more efficient than conventional vibrators.

Especially suitable for: small parts, large quantities of bulk goods

Drag finishing

In the drag finishing process, the workpieces are clamped in holders and dragged at high speed in a circular motion through a process drum containing grinding or polishing granulate. This generates contact pressure between the workpiece and the abrasive, which produces perfect results in a very short time – quality equivalent to that obtained by manual polishing. OTEC leads the field in this technology.

Especially suitable for: large, heavy workpieces, single items

Stream finishing

In the stream finishing process, both the workpiece holder and the process drum rotate. This creates extremely powerful processing forces and gives very short finishing times.

Especially suitable for: deburring, polishing to a mirror finish and edge rounding of cutting tools, cog wheels, single items

Pulse finishing

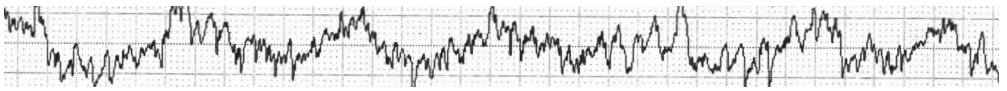
This OTEC-patented variation of the stream finishing process is astonishingly fast. The clamped workpieces are repeatedly accelerated to a speed of over 2,000 rpm and then decelerated immediately. The considerable difference in velocity between workpiece and media create an extremely intense and precisely controllable abrasive effect.

Especially suitable for: large series production, integration into in-line production, single items

PERFECT RESULTS

For a perfect finish, the right choice of mass finishing machine, abrasive media and finishing process are absolutely critical. The resulting perfect surface depends on many different parameters.

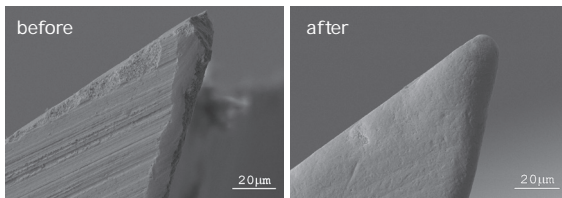
Surface finished on a CNC grinding machine
Ra: 1.23 μm , Rz: 7.9 μm



Surface after finishing in a DF machine
Ra: 0.01 μm , Rz: 0.1 μm



Processing examples



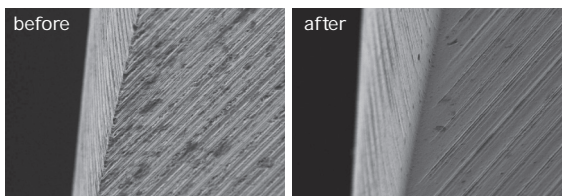
Edge rounding of a cutting tool

Material: tungsten carbide

Finishing time: 6 minutes

- Three-fold increase in tool life
- Longer service life

DF Series

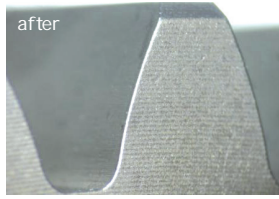
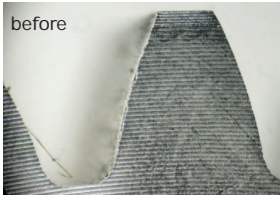


Smoothing and polishing of cutting edges

Material: tungsten carbide

- Very smooth surfaces at the cutting edge, e.g. Ra 0.05 μm
- Considerable increase in tool life
- Better workpiece surfaces

SF Series



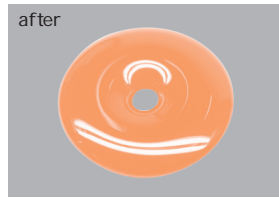
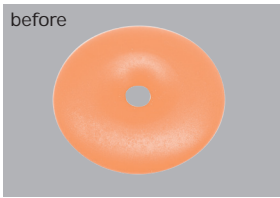
Deburring gear and cog wheels,
rounding and smoothing tooth faces
Finishing time: 2 minutes
○ Up to 5 workpieces at the same time
○ Rz value 1.5 μm reduced to 0.4 μm
SF Series



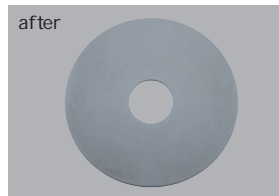
Deburring, rounding and smoothing
of a camshaft
Process: PULSFINISH®
○ Deburring, rounding and smoothing
in approx. 60 seconds
○ Ra before 0.4 μm , after 0.09 μm
○ Improved tribological properties
SF PULSFINISH® Series



Mirror-finish polishing of
a knee joint
○ Before: line ground
○ After: absolutely scratch-free
Ra values up to 0.01 μm
DF Series



Polishing of workpieces made from
ceramic and plastic materials
Material: ceramic
Very smooth, polished surfaces with low
roughness depth (less than 0.2 μm)
○ No deformation of the products
CF Series



Deburring and rounding of stamped
parts
Our zero gap system makes perfect work
of rapid deburring and rounding, even on
very thin stamped parts.
CF Series

WHERE WE LIVE, QUALITY HAS A LONG TRADITION

Founded in 1996, OTEC has quickly established itself as the market's technology leader by developing new machine concepts, inventions and improvements. OTEC supplies machines which are carefully tailored to the needs of specific industries and which are truly impressive in terms of cost-effectiveness, handling and precision and which are far superior to conventional systems. This means that OTEC can fulfil the most complex requirements. With some 120 employees at our head office in southern Germany, plus a global distribution network, we guarantee you'll benefit from excellent advice, superb process quality and outstanding worldwide service.

Expert advice and sample finishing service

We will be happy to prove just how efficient our grinding and polishing machines really are. We provide detailed and comprehensive advice and will also develop for you a customized processing concept tailor-made to your specific application, including the right combination of grinding and polishing media. In addition, we will process a sample of the parts concerned and document all relevant process parameters. And the best thing is: this service is provided free of charge, without obligation and in absolute confidence.

Put us to the test!

You will be truly impressed by the result.
Simply send your workpieces marked "test samples" to:

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www.otec.de/en

MACHINE TYPES

SF Series



DF Series



CF Series



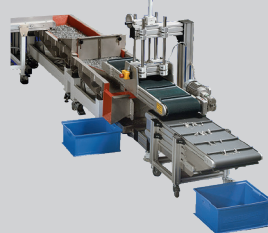
ECO / EF Series



ECO-Maxi Series / HV 20



Separating Units



SF

PULSFINISH®

DF

CF

ECO / EF

ECO-Maxi / HV 20

SEPERATING UNITS

MEDIA

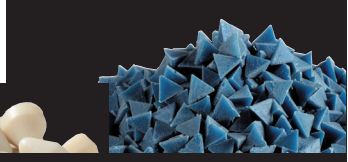
PERFECT SURFACES

SVIEGLTVSGIWSVHVXLIVIMXWIGSVVIVSRHMRQME

XIOIXTIMVAVMPETSTIWM

XIFIWRQSMVZHEKINSFZ[HIPSTIH

a special abrasive for polishing ceramics and hard metals.



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MRJSSMI