

MASS FINISHING IN OIL GENTLE DEBURRING AND SMOOTHING WITH CORROSION PROTECTION



OIL MIXTURE PROCESS WITH MINIMAL CLEANING

OTEC mass finishing in oil is designed specially for processing steel parts, for example, with very precise and gentle finishing for that perfect surface. Special grinding bodies in oil ensure even abrasion and reliably protect the workpieces from corrosion. There is no need to apply corrosion protection.



More information

Areas of application

- Precision parts under particular mechanical stress
- Ground or lapped workpieces
- Corrosion-sensitive components
- Workpieces that have weak burrs, e.g. secondary burrs after grinding
- To comply with the lowest dimensional tolerances

Highlights

- No degreasing of the workpieces before and after mass finishing as they are in a constant oily state
- No additional cleaning system required for process water treatment after mass finishing
- No drying required – workpieces are still oily when they are passed on for further processing

Innovative edge thanks to OTEC processes

- Gentle processing in the oil bath ensures that workpieces are not damaged
- Grinding and honing oils are used
- Grinding and polishing bodies last a long time thanks to an abrasive mixture of oil instead of water, which protects the particles
- Possibility of treating the oil using a centrifuge
- No need to apply corrosion protection
- Only a small quantity of oil is used thanks to oil recirculation
- Gentle removal of secondary burrs after grinding and honing processes





Outer ring



Bolts, fittings, rings, and turned and milled parts

Optimal results with sustainable technology

Compared with conventional OTEC mass finishing processes, this technology uses special grinding and polishing bodies together with oil instead of the usual water compound mixture as an abrasive. This means that steel workpieces or components that have weak burrs can be smoothed very gently.

Mass finishing in oil is ideal for corrosion-sensitive parts. These parts can be delivered in an oily state, processed directly in oil and used again for their intended purpose in the same medium. There is no need for time-consuming intermediate cleaning, which significantly reduces the time and effort required for processing and ensures the sustainable use of resources.

Main features of the machine

- 1-2 process containers with oil-resistant PU lining
- Frequency inverters for controlling speed
- SPS touchscreen control with digital display of:
 - Processing time, speed, rinse cycles, dosing
 - Option for saving up to 5 000 individual processing programs

60 min / batch



before | R_a 0,25 μ m

after | R_a 0,05 μ m

Bolts

30 min / batch



before | R_a 0,2 μ m

after | R_a 0,1 μ m

Fittings

See the OTEC high-gloss results for yourself!

We develop custom solutions to suit your specific requirements in our Finishing Center.



As a trusted global partner for perfect surfaces, OTEC builds innovative finishing machines which set high standards and achieve perfect process reliability. Revolutionising manual processing applications results in precise and consistent quality in the shortest possible process time.

Smooth surfaces every time, defined rounding results, the removal of burrs and a perfect sheen are decisive competitive advantages in almost all industrial sectors. In particular that means saving energy as well as extending the service life and increasing the durability of parts.

OTEC machines with the "Made in Germany" seal of quality stand for dependable technology, high-quality workmanship, reliable operation and a long service life.

OTEC
PRECISION FINISHING SOLUTIONS

OTEC Präzisionsfinish GmbH
Heinrich-Hertz-Straße 24
75334 Straubenhardt-Conweiler
Germany +49 7082 4911 710
sales@otec.de

www.otec.de

Made
in
Germany