



PRESS RELEASE

SUPERIOR CHIP REMOVAL THANKS TO PRECISION SURFACE PROCESSING

UC TOOLS & OTEC –

PRECISION SURFACE PROCESSING FOR PCD TOOLS

OTEC has developed a custom surface polishing process for UC Tools' PCD range (PCD is an ultra-hard synthetic cutting material made from sintered diamond particles). The result: tools polished to perfection.

UC Tools uses the OTEC SF Series stream finishing machine exclusively for surface processing of these tools. OTEC is a partner it can trust – always ready to deal with queries or concerns – with efficient communication channels that the tooling specialist considers a big plus.

About UC Tools:

Established in 1988, UC Tools GmbH is an owner-managed company with over 30 years of expertise in special PCD tools for drilling, milling and turning. It also produces special solid carbide and soldered tools, for which demand is growing rapidly, as well as indexable inserts, cermet and CBN tools.

The company's innovative culture and in-house tool manufacturing processes are geared towards each customer's requirements, specifications and processing solutions to provide superior quality and flexibility. Its customer base includes both suppliers and manufacturers in the automotive and aerospace industries.

More info: www.uc-tools.de

Superior surface quality is essential in tool carrier production, because it guarantees factors like better chip removal – especially in dry processing.

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Otec SF Series stream finishing machines are designed for highly effective mass finishing:

Since PCD tools are special-purpose, they are produced and processed in small volumes by clamping them in the holder and immersing them in a rotating container filled with a polishing medium. The machines produce frictional movement between the flow of polishing medium and the rotating PCD tool.



Otec stream finishing machines produce smooth surfaces even in the smallest flutes, with roughness depths of Ra 0.02 μm . The SF's controlled movement sequences only process specific points on the tool, which makes the Otec process faster and more targeted than other surface finishing methods, as well as producing superbly smooth PCD blades. It also has a pneumatic lifting door for rapid workpiece changeover.

Alongside PCD tools, Otec stream finishing machines are used to prepare the cutting edges of carbide tools, and to polish chip spaces.

Since PCD tool blades are made from ultra-hard material, they have to be polished in a dry process (with a hard shell granulate containing a certain amount of abrasive). The SF machine comes to the fore here by preventing fractures in the cutting edges.

Processing takes between 10 and 30 minutes depending on the initial quality of the tools and the polishing level required.



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UC Tools opted for OTEC's stream finishing machines not just because they are reliable but also on account of their efficient processing times, which means that several tools can be finished in a single run. The machines' high processing forces and flow rates also make them more cost-effective. OTEC's precision finish makes the service life of the tools more predictable as well as improving their cutting speed courtesy of better chip flow. Thanks to OTEC, the look and quality of UC Tools' products are a cut above the rest!

The company

OTEC GmbH provides precision technology for achieving perfect surfaces. OTEC machines are used for deburring, grinding, smoothing and polishing, with the aim of improving surface quality on tools and products. With a network of over 60 distributors worldwide, OTEC is there for international customers from a wide range of sectors. Customers benefit from OTEC's in-depth technical expertise when it comes to developing the perfect interplay of machine and abrasive.

Press contact

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