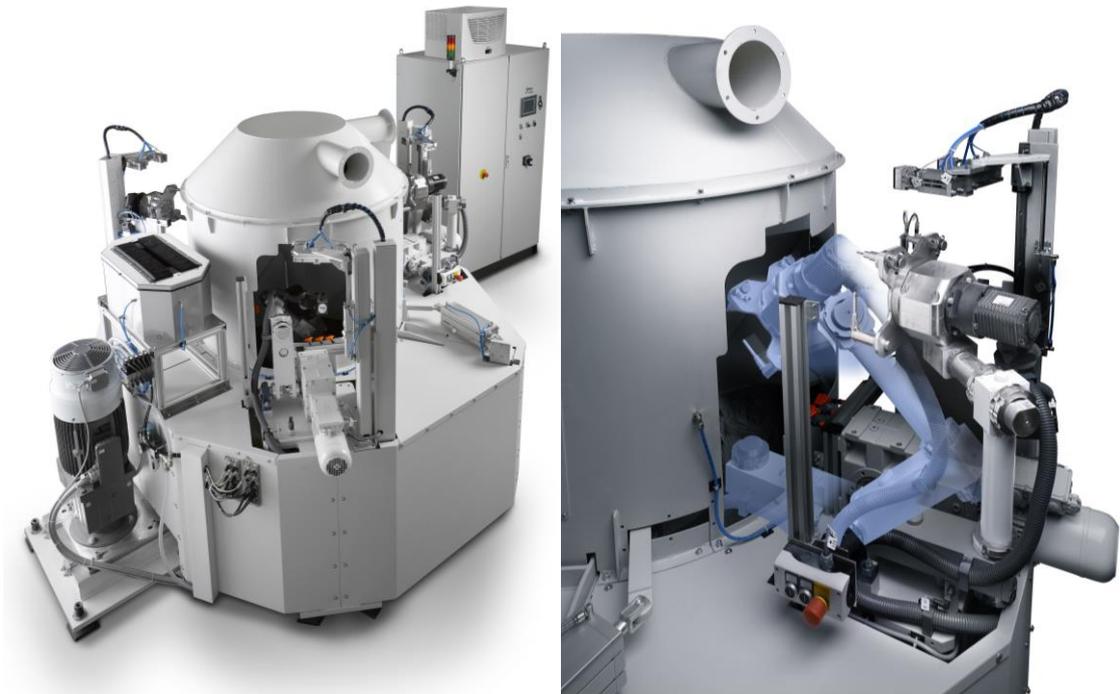


PRESS RELEASE

The SF 3-200 Stream Finishing Machine

New technical highlight from OTEC

OTEC, one of Europe's leading suppliers in the field of surface finishing has once again succeeded in setting new, outstanding technical standards with the introduction of the innovative SF 3-200 stream finishing machine. This machine is capable of grinding and polishing workpieces in areas where conventional technologies have previously not always been able to produce satisfactory results. The tremendous speeds of the grinding and polishing media (up to 16m/s) create the perfect preconditions for the precision finishing of angles, recesses, flutes etc. Furthermore, the new stream finishing machine features extremely short processing times (from as little as 20 seconds to a maximum of 3 minutes). This opens up a new chapter in the smoothing, edge rounding and mirror-finish polishing of all kinds of workpieces such as moulds, cog wheels, decorative parts, bathroom fittings etc. but also in the important area of implants and much more. Extremely low roughness values with precision in the μ range: that was the objective which has now become reality.



SF 3-200



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With the new SF3-200 stream finishing machine, the company based in Straubenhardt near Pforzheim (Baden-Wuerttemberg) has once again proved that ongoing development work is one of the main pillars of OTEC's philosophy. The over 60 patents and registered designs granted in the 16 years of the company's existence speak for themselves. Currently, three new patents are pending for recent innovations – for the fully automatic water/compound stream of the stream finishing machines, the simple but ingenious media brush and the vacuum gripper for fast workpiece change – further technical advances which make the relevant surface finishing processes shorter, faster and more user-friendly.

The great technical creativity demonstrated by OTEC is a clear expression of a corporate philosophy which is largely defined by three factors. In all cases, the basis is provided by a keen observation of the market in order to determine current and future demand. Just as important is close cooperation with customers, and this takes the form of dialog, listening and taking note of very specific customer requirements or suggestions, even if no suitable solution yet exists for them. The seemingly impossible has always spurred OTEC on to achieve even greater things. For the firm's executives and chief design engineers, the principle of listening extends to the employees, too, whose ideas both big and small are always a key source of improvements and ongoing development. Team spirit at its best!



In matters of technology, OTEC has never stood still. In addition to developing new machines, existing and established models are constantly being modified – resulting in considerable improvements for the user. Let us pick out just a few major developments from recent years, starting with the additional option of an angled and independently rotating multiple workpiece holder for certain machine types, e.g. the DF-3 drag finishing machine. This innovation gives in a considerable increase in contact pressure and thereby greatly improves the finishing of the workpiece face. It has also proved invaluable for the finishing of hardened precision



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shafts and arbors as well as for improving the quality of the polished surface inside the flutes of straight-fluted tools. All in all, the option of using an angled holder serves to extend the range of workpieces to include face mills, measuring discs, engine valves, pistons, knee joints and much more besides.



A further major advance was the chuck system for fast tool change at the touch of a button – suitable for both wet and dry operation. The ability to hold workpieces of three different lengths while ensuring the right immersion depth in the grinding or polishing granulate for each workpiece was just as important a benefit as more homogenous finishing and shorter processing times.

Other equally important OTEC innovations take the form of registered designs or utility patents such as gap systems for disc finishing machines. This innovation ensures that the workpieces are processed with maximum efficiency and precision by perfectly adjusting the gap between the rotating base plate and the drum wall. One outstanding feature here was the ceramic gap system with a gap setting of 0.05 mm. Intended for dry operation in particular, this enables very fine granulates to be used in order to obtain the best polishing results. And equally ground-breaking was the development of the zero gap system for the wet finishing of very thin workpieces, since the gap size is now reduced to zero which makes it impossible for the workpieces to become lodged in the gap. All this amounts to the very best results combined with absolute reliability.

The field of surface finishing requiring utmost precision covers a wide area ranging from tools and tool parts in the broadest sense through medical devices and implants to jewelry. And just as varied are the customers' demands for precisely the right solution. It is not surprising, therefore, that hardly any two machines that leave the OTEC works are exactly the same. Apart from the major distinction between



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mechanically operated and fully automatic process-controlled units, there are some 350 machine variants, 1,625 accessory elements and 2,247 special features.

And just as keenly optimized to the precise needs of the customers is the use of process media. Some of these are developed in house; others are outsourced. For OTEC, the main thing is to make exactly the right choice, since in many cases perfect results can only be obtained with the right mixture of media. OTEC therefore offers its customers individualized complete solutions consisting of the right machine version and the most suitable process media.

OTEC has gained an international reputation for its know-how. Some 60% of the company's products are delivered to the export market. At trade fairs, this owner-managed company is held in high esteem by visitors from home and abroad.

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