Press Release

MASS FINISHING WORLD PREMIERE SF-HP

OTEC'S RELIABLE STREAMFINISH TAKES ON LARGER LOADS!

OTEC has welcomed its latest addition to the SF Series family. The SF-HP is designed for precision surface finishing of heavy and large workpieces for industries such as aerospace, food, forming tools, machinery construction, energy, oil and gas.

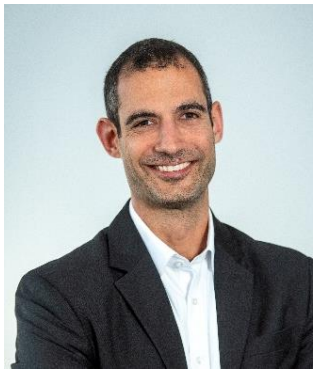
What is new and unique about the SF-HP and what makes it different to other systems currently available?

For the first time, heavy and large components can now benefit from OTEC's proven stream finishing technology and expert support during process development.

The SF-HP is the world's first stream finishing machine for workpieces with a diameter and length up to 650 mm and weighing up to 200 kg.

Due to the large number of axis settings for the process head and spindle, almost any movement of the workpiece through the process media is possible. This results in precise surface finishing in the shortest possible time, even for the smallest of workpieces. The stream finishing technology is a green mechanical process without aggressive chemicals.

The finishing process improves the tribological surface properties by reducing friction and abrasion.



Armen Papanian, Head of International Sales at OTEC Präzisionsfinish GmbH, is keen to explain the new machine in more detail.

Armen, why did OTEC build this new generation of the SF Series?

"The OTEC SF Series machines are the fastest mass finishing technology. Our customers worldwide were asking for this fast and proven technology to process their larger and often heavier workpieces. We were able to provide a solution for smaller workpieces up to 350 mm in diameter, 400 mm in length and up to a weight of 60 kg. But beyond these limits, we had no solution. We developed the SF-HP to give our customers a system which covers most of their product range."

What kind of workpieces can be processed with the new SF-HP?

"Any kind of workpieces up to 650 mm in diameter and length and up to 200 kg in weight can be processed in the SF-HP. We are receiving requests for improving the surface of blades to Ra=0.15–0.2 µm, putting a defined edge rounding on gears and at the same time improving the surface down to Ra=0.08–0.05 µm, putting an edge radius on the fir tree slot of a disk without changing the geometry, putting a high polish on forming tools or ball valves, etc."

That leads me to the next question: is it possible to load the machine automatically?

"Yes, definitely. Our customers asked us to provide them with an ergonomic solution in the handling of these large and/or heavy workpieces. The customer only needs to place their workpiece into our machine loading area. This can be done, for instance, with a trolley that is docked to our SF. The loading and unloading of the SF-HP is done with an integrated loading system which picks the workpiece from the loading area, loads it in the processing area and then brings it back again to the loading area. If required, you can connect a robot cell to the SF-HP which loads the machine directly. In both cases no manual loading of your large and/or heavy workpieces is necessary.

You do not need any robot programming knowledge to program the integrated loading system. You use the touch screen in the SF to set all the parameters you need."

What drives are currently available?

"Our goal was to provide the customer with maximum flexibility for the processing of their workpieces. We therefore combined three different drive technologies into one system in the spindle of the SF-HP. With this one system you can either rotate your workpiece at different speeds in one direction, or you can use the step function to place your workpiece at certain angles in the media or you can use the pulse finishing technology. Thanks to a large number of axis settings and a flexible process head, you can program almost any workpiece movement through the process media. This guarantees the best possible finishing."

Where can I get to see the SF-HP and get further information?

"Everything is a little bit different due to Covid-19. Nevertheless, we offer different possibilities for you to get close up to the new SF-HP. You are welcome to visit us in Straubenhardt, Germany, to see the SF-HP running in our Finishing Center. If you would prefer not to travel, we can arrange a live online presentation for you. Please contact us to make an appointment.

If you want to change your current process into a more efficient one, we offer a sample processing service in our Finishing Center. Please send us some pictures and a description of your workpiece and your request in advance. We will contact you to discuss the details and the process and to provide you with some suggestions for the processing in our Finishing Center."

Thank you for the interview, Armen.

Download the machine and process overview here >>

Less talk, more testing: your workpiece – your custom process!

We do not just say our technology is better: we prove it. We will happily put the performance of OTEC Präzisionsfinish and the SF Series to the test. We provide comprehensive advice and a fully customized processing plan for your application, including a list of the right grinding and

polishing media. We also offer bespoke sample processing including a full process parameter record. Our process experts will find the right machinery and process solution for your requirements. More about sample processing here >>

About OTEC Präzisionsfinish GmbH

OTEC Präzisionsfinish GmbH provides precision technology for achieving perfect surfaces. OTEC machines are used for smoothing, precision edge-rounding, polishing and deburring a wide variety of workpieces, with the aim of improving surface quality. OTEC has a global presence supported by international business partners. OTEC's comprehensive, market-leading technical expertise in developing the perfect interplay of machine and abrasive benefits a wide range of industries including tooling, medical devices, jewelry, automotive and aerospace.