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# The New Benchmark in Crankshaft Finishing

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A new line of tape finishing machines for the microfinishing of crankshafts with the narrowest bearing clearances has now been developed by Thielenhaus Microfinish. With the CrankStar HP (High Productivity) and the CrankStar HF (High Flexibility), one of the market leaders in the field of high-precision machine tools for surface microfinishing meets the requirements of many engine manufacturers in terms of a flexible machine solution which is suitable for smaller crankshafts. Particularly narrow finishing units with an extremely large opening angle (80°) allow, for the first time, the economic and process-safe machining of crankshafts with a mere 33 mm depth gauge, which is required by the trend towards more compact engines with higher efficiency.

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The new CrankStar tape finishing machine from Thielenhaus Microfinish is geared to the demand for ever more compact engines and enables the finest machining of crankshafts with narrow bearing distances.

In addition, on the innovative microfinishing machine, all crankshafts made of cast iron or steel with a tip width of 500 mm (HP) to 800 mm (HF) and a maximum revolution diameter of 210 mm as well as a stroke of up to 100 mm can be finished in one step or more.

Crankshafts for engines with three to six cylinders can even be processed without changing the set-up. In addition to the usual surfaces, such as main, lifting and fitting bearings, the front pins can also be finished and the flange bores can be deburred as part of the single-step or multi-step process.

A special highlight of the CrankStar HP is the optional decoupled loading system, which allows for a main time-neutral loading/unloading via an external portal. This allows reductions of the cycle time of up to 17 seconds. This saved time can be used as extended machining time, which can even enable users to dispense with an entire station.

Apart from its extra-slim and flexible tape finishing units, the CrankStar gained a lot of attention due to its innovative and ergonomically designed tape management system. A particularly ample belt capacity, various belt monitoring options and the best accessibility to the workspace guarantee the shortest downtimes. Tape end, tape feed and tape tear monitoring reports imminent and unforeseen interruptions in the tape feed and ensure consistently good results. All tape rolls can be replaced from the front of the machine, meaning complete operation can take place ergonomically from just one side. The innovative tape cutting system in the CrankStar HF also works reliably and without problems, even with different tape thicknesses. Depending on the requirements, the hard and/or soft tape pressing

shoes can be easily exchanged without any tools by means of a quick-change system.

The CrankStar HP is designed for high output with the shortest cycle times and, with a width of 2,000 mm per station, has an extremely compact design. The modular design allows all the processing stages to be displayed. The CrankStar HF is designed for cycle processing and can therefore be integrated into flexible production lines.

The loading can take place via portal, robot or by hand into the machine. The standard new tape finishing machine is delivered with a particularly energy-efficient periphery.

Source: Thielenhaus Microfinish

## More information:

[The official Thielenhaus's homepage.](#)

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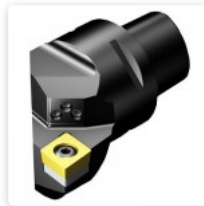
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