

# STAHLI presents its new FH3 machine concept at EMO

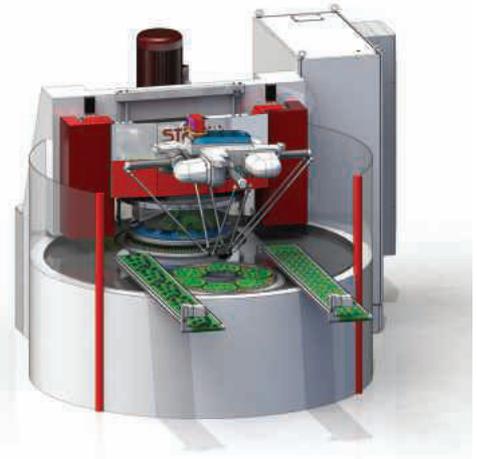
The Stahli FH3-505 machine is purpose built for automation with the goal of providing through feed speeds with classic Stahli DLM double sided machines series precision

While the concept of a 3-wheel planetary kinematics machine with two lower wheels and an alternating top grinding wheel is not entirely new, it has not really been seen on the market in the past few decades. Some Hahn & Kolb machines, incorporated by Stahli in 1996, can still be seen around, quite a few of them in the UK. A few decades back, the 3-wheel system was built to allow changing workpieces manually on one side, while the machine was flat honing or lapping workpieces on the other set of wheels. However due to lack of speed gains this concept hasn't gained a permanent foothold in the industry.

The 3-wheel system is now again incorporated by Stahli in the FH3 series to use its fast change over times, in conjunction with modern robot technology and fully automated manufacturing. The main

advantage of the Stahli FH3 against automating any planetary lapping or fine-grinding system is the fact, that no carrier discs have to be moved around. Instead the whole lower assembly of two grinding wheels, carriers and workpieces will swivel to and from the automation 180° at the end of any flat honing cycle. This results in an unproductive time of only 5-10 seconds while swivelling, compared to classical systems, where unloading and loading carriers will often take 60 to 90 seconds.

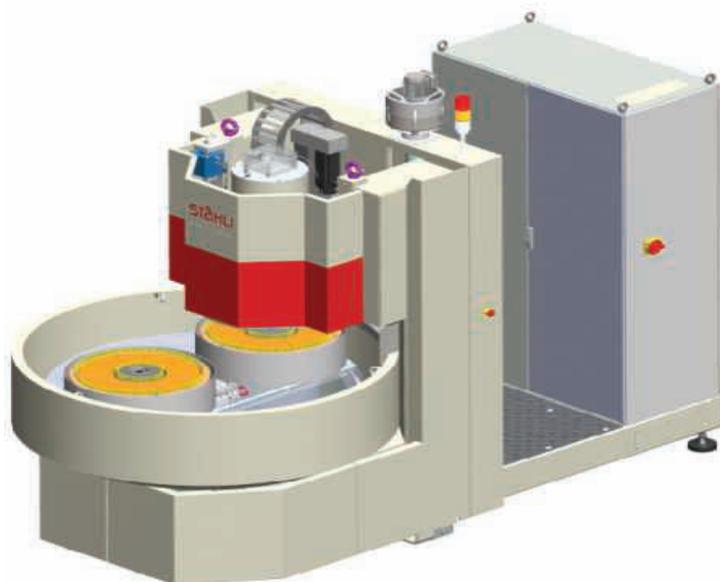
Since the tiring and often very individual task of handling the workpiece carriers on classic machines is eliminated for the automation, many different standard automation cells



can be used. It's now just a pick and place task. The customer can, if required, choose its local automation company's standard module and profit from their local services.

Automation aside, the Stahli FH3 concept provides, as any Stahli DLM, a stiff chassis, well proven vibration damping system, high torque and efficient drives and precise in-process measurement. This allows to double-side-grind large series of workpieces precisely and in the most efficient way. Stahli will present the FH3-505 as well as the single-side grinding machine FH 602-H at EMO **Hall 11, stand E62.**

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## The Science behind

### Lapping, Polishing, Grinding and Honing

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