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Next Gen Innovation in Machining Process Design to Be Unveiled by Third Wave Systems

Modeling power skiving for electric vehicle transmission components to be demonstrated at EMO 2021 and holds the key to accelerating process design.

MILAN, ITALY, (October 7, 2021) - Third Wave Systems, a premier Finite Element Analysis (FEA)-based, machining modeling provider will be showcasing the availability of user-defined kinematics to enable modeling of sophisticated and less understood processes like power skiving, bar peeling, spin tool turning and others, as well as the other innovations, at EMO Milan Oct 4-9.

The power skiving process provides greater flexibility with the ability to use general purpose milling machines for skiving processes. This flexibility has made power skiving a process of choice for advanced electric vehicle transmissions—and Third Wave Systems meets this demand. “We are proud to support our customers’ incessant need to innovate in machining processes of the next generation. With adoption of agile development methodologies, we have increased the speed of delivering value to our customers with 6 releases in the last 18 months,” states Kerry Marusich, TWS CEO.

Machining modeling is critically important for these processes due to complex cutting edge and workpiece engagement. The sophisticated nature makes it difficult to even measure forces and study tool wear and chip evacuation that is traditionally used for improving machining processes. Insights provided by AdvantEdge, the industry’s premier machining modeling software, aim to avoid recutting of chips by controlling chip flow, identifying exact engagement between the tool and the workpiece at any given instance and are critical in accelerating tool and process design.

Says Marusich, “Along with advancements in machining modeling, we have delivered computation improvements of over 40%, enabling our users to solve bigger and more sophisticated processes like power skiving. We can’t wait to demonstrate all these advancements at EMO.”

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Third Wave Systems (www.thirdwavesys.com) develops and sells premier materials based modeling software and services for machining solutions. Innovative manufacturing companies implement these solutions to dramatically reduce costs of machined components, accelerate design cycles, improve part quality and get to market faster.

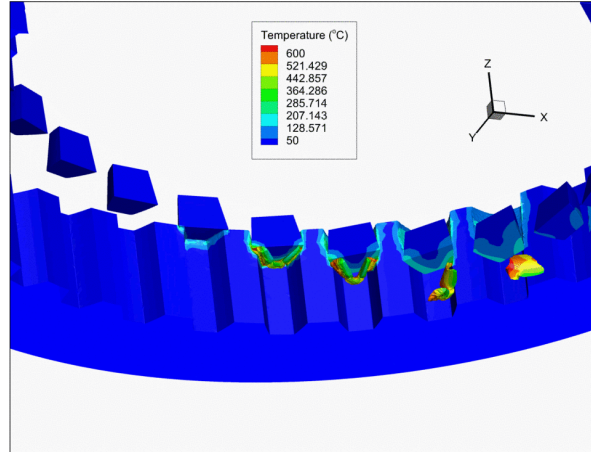


Image: Chip flow analysis in power skiving process for internal gears in automotive application