**WORKNC 2022.1 major new enhancements include:**

- Improvement in ‘Send to CAM’ workflow from DESIGNER to WORKNC
- Surface finishing improvements
- Holder Collision Avoidance against the dynamic stock
- Waveform with Finish Pass
- Multi-part machining with NCSIMUL
- 5-axis toolpaths with the overlap option

**Improvement in "‘Send to CAM”CAM’ workflow from DESIGNER to WORKNC**

WORKNC, one the world’s leading solutions for advanced mold &and die machining, with a unique workflow including DESIGNER as the preparation CAD for Manufacturingmanufacturing, strengthens this solution by improving the "‘Send to CAM”CAM’ command in DESIGNER.

DESIGNER brings state-of-the-art direct hybrid modelling functionality powered by top Hexagon technology. Preparing the model in advance, including capping holes and pockets, healing missing faces, or extending surfaces means the manufacturing job that comes after becomes much simpler.

A simple and powerful "‘Send to CAM”CAM’ command creates the WORKNC workzone directly from the CAD application, ensuring the right models are automatically assigned as stock and fixture. CAM entities can be automatically created such as curves, surface lists and surface list groups.

This instruction now allows the user to define a machining sequence beforehand, automatically starting the calculation of toolpath over the project prepared. It also allows the user to define the destination directory for the workzone about to be created. Pre-existing stock models can also be selected.

**Surface finishing improvements**

WORKNC modernizes the internal geometric model calculation when importing solid models from native files or from DESIGNER Companion. The intersection of surfaces will have a particularly important improvement, ensuring seamless finishing for the entire model.

**Holder Collision Avoidance against the dynamic stock**

In Roughing, users can either pre-select the tool assembly including the shank and the holder, and WORKNC dynamically avoids the collision with the evolving stock; or calculate only with the tool (which is faster) and then select the holder later. This has always been the case with WORKNC, but the holder selected later would only have its collision checked against the static part and not the stock model. Version 2022.1 now checks the collision of the selected holder against the dynamic stock model, improving the safety of the process by avoiding the collision.

**Waveform with Finish Pass**

The renowned Hexagon technology for constant cutter engagement, Waveform roughing in WORKNC integrates the option to do a finish pass after the roughing toolpath is executed. With that, the surface finishing is guaranteed, and an extra toolpath to smooth out the faces of the part roughed is no longer necessary. The user experience is improved, and when machining a 2D pocket, an allowance of zero renders an extra finishing toolpath obsolete.

**Multi-part machining with NCSIMUL**

The integration with NCSIMUL is now even stronger, allowing for multiple workzones to be imported on the same project. With this, the user can rationalize tool changes, collision check against the entire multi-part environment, and execute a complete weekend of safe lights-out machining.

**5-axis toolpaths with the overlap option**

WORKNC’s market-leading 5-axis toolpaths now offer the option to roll beyond the entry point in every pass, ensuring surface finishing is improved by eliminating the differences caused by the tool’s deflection.