

TOOL MANAGEMENT



KAPP NILES

with KN assist

While offering the shortest grinding times in a production environment driven by demand, the focus also shifts towards reducing set-up times as a distinctive factor in the overall productivity of equipment and machines.

KAPP NILES has developed its own platform called KN assist which contains a tool data management system among other features. As a part of this platform KAPP NILES offers aside of optimised set-up

times machine concepts, intelligent clamping devices and grinding tools, which provide all process relevant input data within an integrated RFID data storage. Together with the saved time by rendering any manual data inputs to the machines obsolete and the elimination of faulty inputs risks, deploying the Tool Management offered by KAPP NILES not only enhances the preparation of grinding projects, but also simplifies all steps along the way.

The key component of this system is the KN extender which carries the Tool Management. The system extends every workbench with digital functionalities to manage clamping devices, dressing and grinding tools. The Tool Management offers its support already in the preselection and preparation of interchangeable components which are to be set up in the machine. Lean and intuitive processes are designed to cut down set-up times even further.



During the automated set-up process, both KX 100 DYNAMIC and KX 260 DYNAMIC automatically recognise the components and react accordingly, for example by computing axis traverse lengths thus avoiding any collision risks. Additionally, the machine tracks the wear of single components and warns, when a component will reach its given life span limit. The machine prevents a programme-restart, should any components be set up, which might have already exceeded their given life span.

The tool management system by KAPP NILES facilitates a striking reduction in set-up times as well as a decrease of faulty manual inputs. This substantial keystone of an intelligent machine according to Industry 4.0 is another step to raise productivity of the hard finishing of gears and profiles on machines from KAPP NILES.

After the automated removal of the components from the machine, the KN extender reads the updated usage data, keeping track of the wear among other factors. In the preparation for following grinding projects the Tool Management gives recommendations to what specific component to use, should there be several same components. The recommendations are based for example on the chosen deployment strategy.

