Tool requirements planning and loading support (TRP)

Productivity | Process Optimisation



Series

HF

Control

FANUC | SIEMENS Powerline | uni-Pro 90 | SIEMENS Solutionline | SINUMERIK ONE

One key issue in terms of the efficiency of machines is tool provisioning for the next production period. TRP tool requirements planning can be applied to make sure the required tools being available in time. The tools required for the next production period are determined by TRP (tool requirements planning) based on the current tool inventory of the machine. TRP also supports the machine operator in loading and unloading tools by means of operator dialogues on the user-friendly operating panel.

Characteristics

_ Tool gross requirement: Display of the total tool demand including sister tools for the selected machining sequence.Tool net requirement: Display of the total tool demand for the selected machining sequence, tools within magazines are taken into account The tool net requirement results from adjusting tool gross requirement and current magazine assignment.Unloading list: The unloading list includes magazine tools not required for the net requirement as well as disabled tools.Tool life and number of duty cycles are taken into consideration in the calculation. Results can be read out via network coupling.

Benefits

_ Minimisation of machine downtimes through foresighted tool provisioningTool loading with screen dialogues (loading and unloading list)Fast reacting to new production situations through planning optionsInformation on the tools not being required anymore allows minimal magazine assignment

Requirements

_ Prerequisite for using TRP tool requirements planning:The corresponding tool plan has to be available for each CNC program (*.MPF) evaluated by TRP. The tool plan lists all required tools associated to the respective CNC program. The respective tool plan can be determined and provided in different ways:Provided by a CNC programming system (tool life / number of duty cycles evaluation possible)Determined by automatic scanning of the CNC program: the required tools together with a specified ID must be listed in the CNC program head (tool life / number of duty cycles evaluation possible)Determined by automatic scanning of the CNC program: the CNC program is scanned for tool change calls, e.g. CS_TOOL(), Txxxx M6 etc. (tool life / number of duty cycles evaluation not possible)