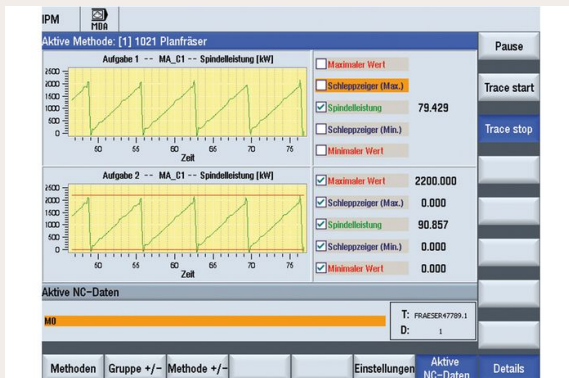


## Integrated Tool Monitoring (IPM)

Availability | Digitalization



Series



Control



In unmanned shift operation, but also in normal production routines involving operators, automatic tool monitoring not only prevents expensive damage, but also unnecessary spoilage.

## Characteristics

- \_ Monitoring of tool breakage and overload during the machining process
- \_ Evaluation of process signals from the digital drives, no additional sensors required
- \_ Assignment of various monitoring processes (e.g. fixed limit, travelling threshold) and responses per tool
- \_ Complete integration of basic monitoring in the Sinumerik 840D user interface, incl. machine preparation

## Benefits

- \_ More process reliability: complete monitoring and data for each tool current at all times
- \_ Fewer unplanned failures, fewer downtimes: proactive and controlled tool replacement
- \_ Lower costs: no expensive response to tool breakage and machine protected against overload

## Requirements

- \_ SIEMENS Powerline
- \_ SIEMENS Solutionline
- \_ Tools with the appropriate power and torque input, i.e. drilling from a depth of approx. 6-8 mm depending on the main spindle type and the machining process