

## **Revolutionary: The virtual machine with 3D simulation**

Esslingen. INDEX-Werke GmbH & Co. KG is the first provider to present a "virtual machine", i.e. a machine simulated on the PC that works exactly as a real machine.

With their turn-mill centres, INDEX has been setting standards for years in complete machining and also in series production productivity.

But, by far not all CNC users, given their existing manufacturing environment, are capable of operating machines equipped with such complexity effectively, safely and, in addition to that, with the required economy from order to order.

The "virtual machine" now allows you to "play through" forthcoming changes in order without any risk, even before problems arise on the machine. This makes it possible to convert the maximum number of actual machine hours into actual production hours.

The identical user software and the exact mirror of the real configuration data allow you to program, set up and operate the "virtual machine" in exactly the same manner as the real machine. And what is more: This "virtual machine", by virtue of containing a copy of the SIEMENS CNC kernel of the SINUMERIK S840D control and of carrying out a 3D machine modelling down to the last detail in the TECNOMATIX simulation system, directly executes the unmodified CNC program. This is the only way to guarantee that workpiece machining and program execution will proceed exactly as in the machine - and, not last, this allows existing CNC programs to be "edited" without another adaptation being necessary. All of this takes place without any loss in production time and without any risk of collisions or damage to the machine.

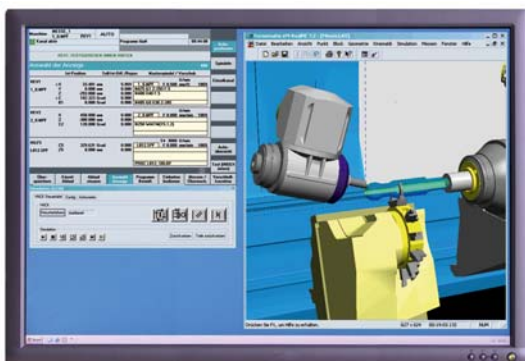
When an order changes or modifications to the machining in progress or optimisations have to be made, nothing is left to chance, when applying the new sequence to the machine. You only have to know how to operate the machine in order to be able to operate and use the "virtual machine" – no rethinking nor further training being required.

Thus, orders will only be passed on to production after thorough testing and already optimised to a large degree—and the sequence carried out at the machine is already known beforehand. This is time-saving and produces a high throughput and economy.

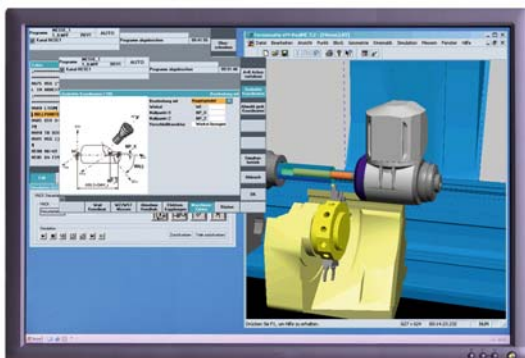
As a consequence, the INDEX “virtual machine” provides the customer not only with technical assistance to protect complex machines from potential damage and expensive repairs but simultaneously it is also a suitable means for creating the essential and proper environmental conditions of optimum machine utilisation.

This gives the customer a technical as well as economic guarantee of his machine investment!

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Picture 1



Picture 2