



**Technologies**

## Monitoring Systems for Metal Cutting Machines

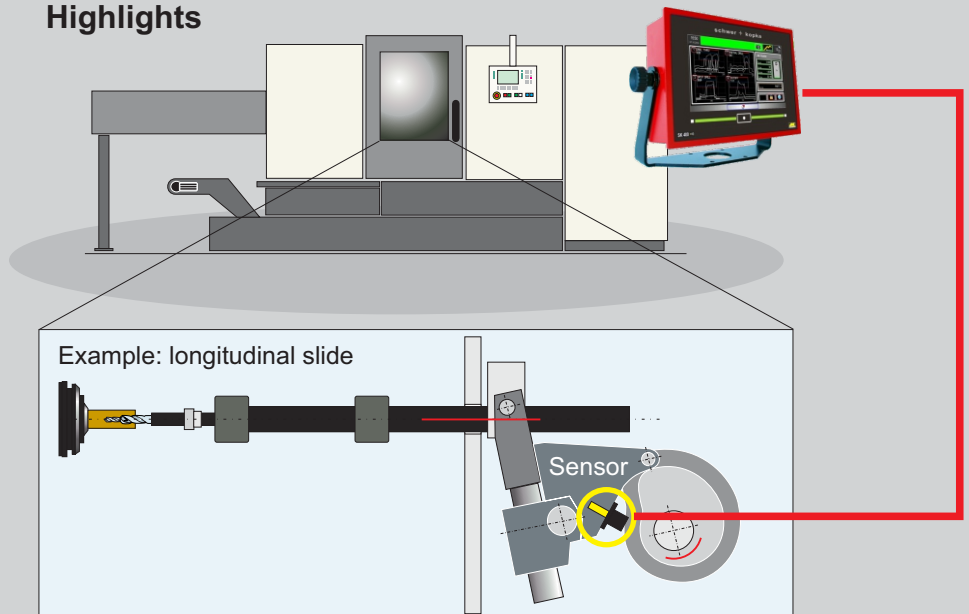
### Features:

- **Mandonic** automatic enveloping system
- Tool breakage monitoring
- Trend monitoring for wear
- Protection against collision
- Multiple Counters
- Up to 16 channels
- 7" Color touch screen
- Multifunction Display
- Compact enclosure
- Data networking option
- User access controlled by RFID key
- Simple to operate



# SK 400 Z

### Highlights



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Easy to install sensors are bolted onto machine parts which are taking the loads from the cutting process such as drive arms for longitudinal or cross slides. These sensors measure the cutting forces and/or the acoustic emission signals. Alternatively, electrical power sensors are registering the power consumption of the electrical drive motors.

# SK 400 Z

## Monitoring Functions

- **Mandonic** auto enveloping
- TL filter function to eliminate unwanted stops caused by chip build up.
- Separate limits for collision, breakage, trend and idling
- Variomaster function ensures proper monitoring of all stations when machine is emptying
- Intelligent re-start function after machine stops
- Trending stop/go chart
- Part data memory
- **Mandon®** reporting system

## Technical Features

- 7" TFT color touch-screen with high resolution
- EMR-proof, ergonomically designed flat enclosure,
- Numerous mounting options (yoke, swivel, floor pedestal, panel mount)
- Part counters for job size, tool life, unattended production runs with Eco-Stop and SPC intervals
- Sorting and batching logic
- **SKTelemaster** for teleservice
- Outputs for machine data collection

## Technical Data

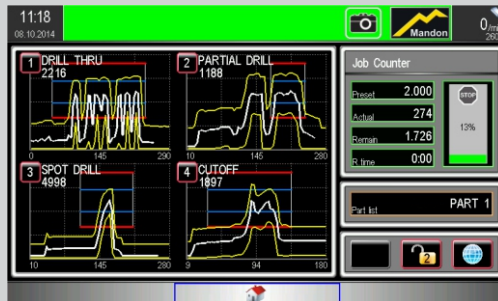
- Powerful digital signal analysis processor
- Up to 16 sensor inputs
- 5 digital outputs (incl. 4 relays)
- 5 digital inputs
- Crank angle encoder option
- Data ports: serial RS-232, Ethernet, USB, Teleservice
- RFID controlled user access
- Data back-up (network or USB)
- High output digital signal amps
- Multi-color warning light (opt.)

Dimensions (without yoke):  
230 W x 165 H x 60 D (mm)  
Supply: 24 VDC, 30W  
Weight: 3,0 kg



Please note that some features are optional features even if not specifically mentioned. Modifications are possible without prior notice.

## Highlights



The main screen shows the signals of all connected sensors and the memorized envelope curves.

The envelope limits are perfectly adapted to the current cutting process by a self teaching function. Any violation of the limits will initiate an immediate stop of the machine.

Part counters are provided for job size and for the life of each tool.



All channels have adjustable limits for

- envelope width
- break limit
- trend limits

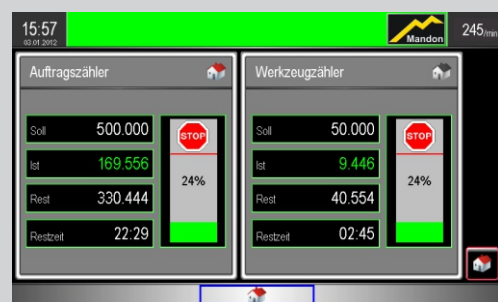
Additional zoom channels (optional) make the monitoring more sensitive in certain phases of the cutting process, or deactivate other phases such as the start-up surge of the electrical motor.



Our unique **Mandon®**-system "talks" to the machine operator.

**Mandon®** is constantly thinking along with the process, gives timely warnings, provides intelligent remedies, and gives precise recommendations on how to improve productivity and quality.

**Mandon®** is your productivity insurance!



Easy-to-set part counters are available for controlling

- order size
- tool life
- unattended production runs with ECO-Stop
- batching unit
- SPC inspection intervals

All counters show preset quantity and current count. Machine stops when reaching preset counts (if activated).