



SK 500

## MONITORING SYSTEMS for Metal Forming Machines

- for cold formers and thread rollers
- Mandonic automatic enveloping system
- Foxmatic monitoring technique
- up to 8 channels
- 10,4" large colour touch screen with Cockpit multi function displays
- Puzzlemaster technique with expert monitoring routines
- Mandon<sup>®</sup> reporting system
- very easy to operate
- user access controllable by RFID key
- ready for production data networking with MES-Software SK-go!
- optional OPC-UA data interface
- prepared for Machine Condition Monitoring
- prepared for PTO 4.0 to provide full process data documentation

## Monitoring Functions

- Mandonic auto enveloping
- Foxmatic technique with Auto-Drift-Compensation for improved detection of small errors
- SKPuzzlemaster expert monitoring programs for special types of errors and forming operations
- automatic compensation of variation in machine speed (RPM)
- new intelligent auto start feature after stop
- indicates process stability (PQI factor)
- DMI Die Match Indicator for thread rollers
- absolute force measurement
- machine loading profile (station by station)
- Machinemaster with error memory
- Trend monitoring with stop/go chart
- tool protection (binary sensors)
- part data memory with target curves
- Mandon® reporting system

## Technical Features

- large 10,4" colour touch screen
- fanless PC with Windows 10 IoT and SSD-Card
- Cockpit-operating-surface for simple operation
- EMR-proof ergonomic flat enclosure
- numerous mounting options (yoke, swivel arm, floor pedestal, panel mount)
- part counters for job size, tool life, unattended production with ECO-stop, and SPC-intervals
- sorting and batching logics

## Ready for 4.0

- integrated data networking with MES SK-go!®
- optional OPC-UA data interface
- prepared for PTO 4.0 process data documentation
- prepared for Machine Condition Monitoring to check temperatures, vibrations, flows, etc.

## Technical Data

- powerful digital signal analysis processor
- up to 8 analog sensor inputs
- 5 digital outputs / 5 digital inputs (expandable with additional I/O-module)
- crank angle decoder option
- data ports: RS-232, Ethernet, 2 x USB, Teleservice
- integrated RFID-reader for user access control
- central data back-up (via network or USB)
- high output digital signal amplifiers
- warning lamp showing mode of operation
- dimensions: 290W x 240H x 116D (mm)
- weight: 6 kg
- power supply: 24 VDC/60W

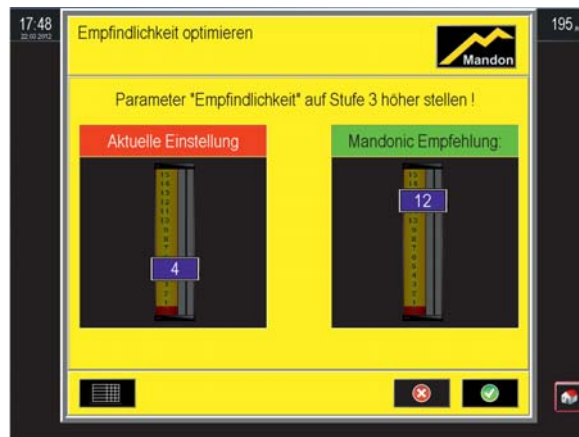
Please note that some features listed above are optional even if not specifically mentioned. Technical modifications are possible without prior notice.



The Cockpit operating surface provides quick access to all important functions. Horizontal and vertical navigation features and short cut buttons make the use of the monitor extremely simple. User access can be controlled by RFID key to avoid unauthorized alterations of parameters and settings.



The Mandonic auto enveloping system adjusts the envelope limits perfectly according to the current variation of the process. The result: reliable detection of process errors with virtually no unnecessary machine stops. SKPuzzlemaster is provided for quick activation of additional expert monitoring routines.



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!