

Envelope Monitoring System for cold forming machines

IMPAX/SK 2

Force monitoring system for metal forming machines:

- cold headers
- thread rollers
- multi-die cold formers (up to 8 channels)
- trim presses
- stamping presses
- etc.

Force Enveloping Technique

SKAutomaster

SKFuzzymaster

SKProfilemaster

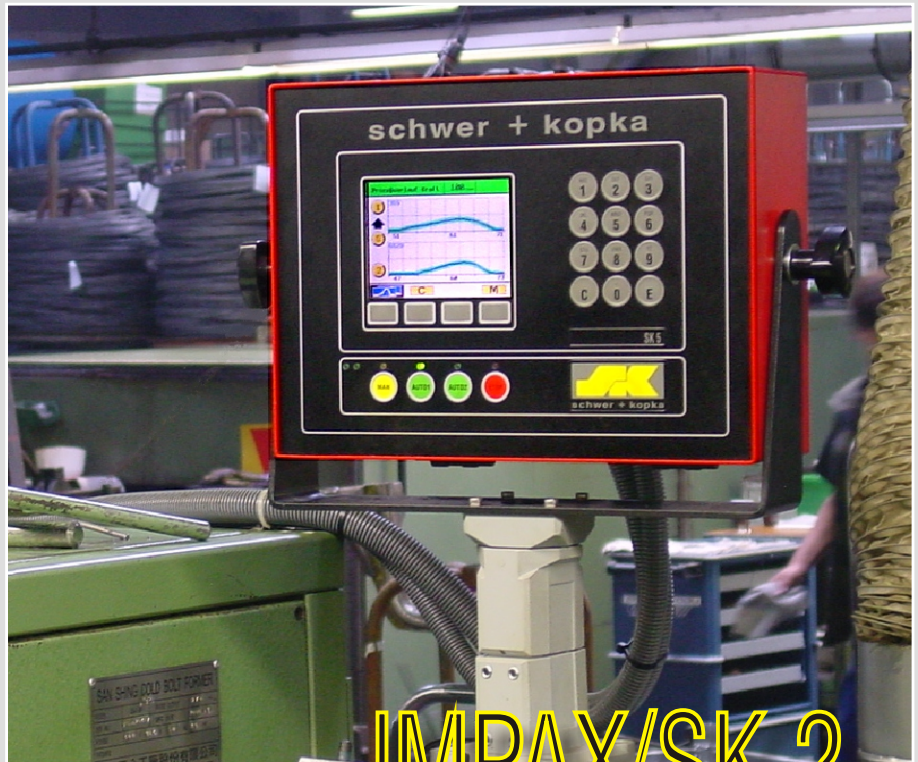
Q-Factor and Trending

5,4" Color-Display

Visual force curve

Networking option

Very simple to use



IMPAX/SK 2

Process Monitoring and Tool Protection System

Innovative monitoring techniques, simplicity of use, a wide variety of software options, and a vivid color display all combined with an attractive price are what sets the new IMPAX/SK apart from the competition. This system was designed for the basic monitoring applications where visual force curve display and advanced enveloping techniques are requirements.

The IMPAX/SK 2 also offers advanced monitoring functions such as SKAutomaster and SKFuzzymaster for automatic limit setting, parts counting for order size, tool life and unmanned shift (AUTO 2), sorting and batching, trending and Q-factor. Simple messages are displayed when an error is detected. A programmable relay package is included.

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Suitable for all standard metal forming machines such single-, double- or multi-blow cold headers, multi-die cold formers (up to 4 channels), trim presses, thread rollers, stamping presses etc.

Monitoring Functions

Applies the proven dynamic "enveloping" technique to monitor the forming force signals, optional advanced SKProfilemaster limits, immediate machine stop when process errors are detected, sorting pulse output, Trend monitoring with stop/go, Q-factor monitoring


Technical Features

5,4" high resolution full color graphical LCD-display for easy viewing. Flat front panel with touch buttons. Very simple to use, just 4 function keys and numerical keypad. Two automatic run modes for regular shift (AUTO 1) and unmanned shift (AUTO 2). EMR-proof, ergonomically designed enclosure with numerous mounting options (yoke, swivel, floor pedestal, etc.). Part counters for order size, tool life, unmanned shift operation, batching counter. SKTelemaster teleservice connection for remote diagnostics and set-up.

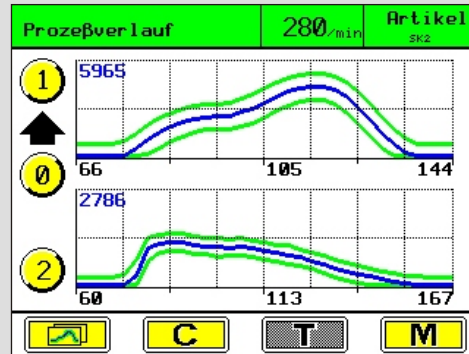
Technical Data

Up to 4 sensor inputs, 6 relay outputs, serial data port RS-232, net working options, high speed digital signal amplifier, CE-rated

Dimensions (without yoke):
380 W x 280 H x 120 D (mm)
Supply: 85 - 265 VAC, 50/60 Hz
Weight: 10 kg

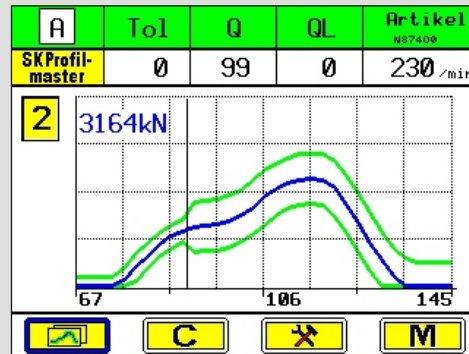
 Please note that some functions explained in this leaflet are optional. Modifications possible.

Displays and monitoring functions

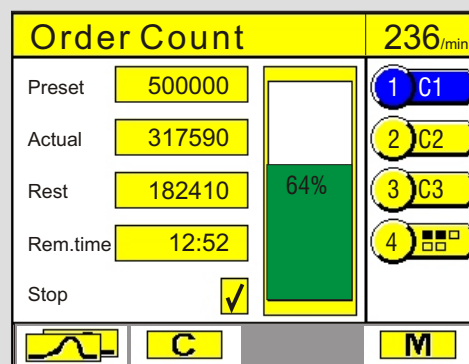


Dynamic enveloping with visual presentation of force curves and current envelope limits (single and dual channel display).

The screen will display a message with stop reason and time of stop in case of an automatic machine stop.

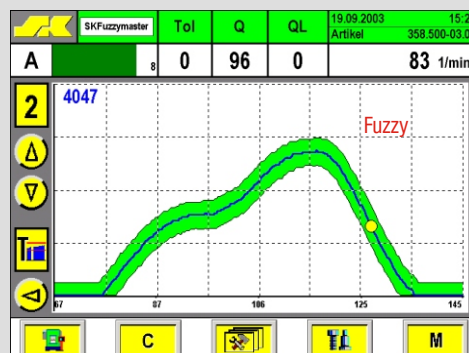


SKProfilemaster represents the next generation of force monitoring: the new "profile enveloping technique" by SK improves the monitoring performance even more. Sensitive where needed, and less sensitive during unstable forming phases. SKProfilemaster ensures optimum sensitivity and maximum productivity by avoiding nuisance machine stoppages.



Easy-to-set part counters are available for

- order size
 - tool life
 - unmanned shift (AUTO 2).
- Each counter shows the preset quantity, the actual count of parts made, the parts remaining, and the time remaining until the order is complete. Machine stops when reaching the preset count (if activated).



The new SKFuzzymaster-Software ensures that the envelope width is always set so that the current process is perfectly monitored.

An automatic routine guarantees a uniform and consistently high monitoring accuracy without the need for any additional operator intervention:

- for every product
- on every machine
- with every operator