



POWER MONITOR

The CS2PW system continuously monitors the effort exerted by the machine tool during the machining process. This monitoring is based on the measurement of the power absorbed by a drive or spindle.

The CS2PW monitors the following in real time:

- Tool breakage
- Tool wear
- Tool presence
- Overloading
- Loss of load
- Adaptive control of procedures

The benefits arising from the use of the Marposs Power Monitor compensate for the initial investment made by considerably increasing machine productivity and consequently lowering production costs.

Quality

The continuous monitoring of the tool state and the measurement precision obtained from the Marposs Power Monitor make it possible to improve production processes and, as a consequence, the geometry of the work piece.

Versatility

The availability of various interface solutions ensures that the Marposs Power Monitor may be integrated on all types of machine tool.

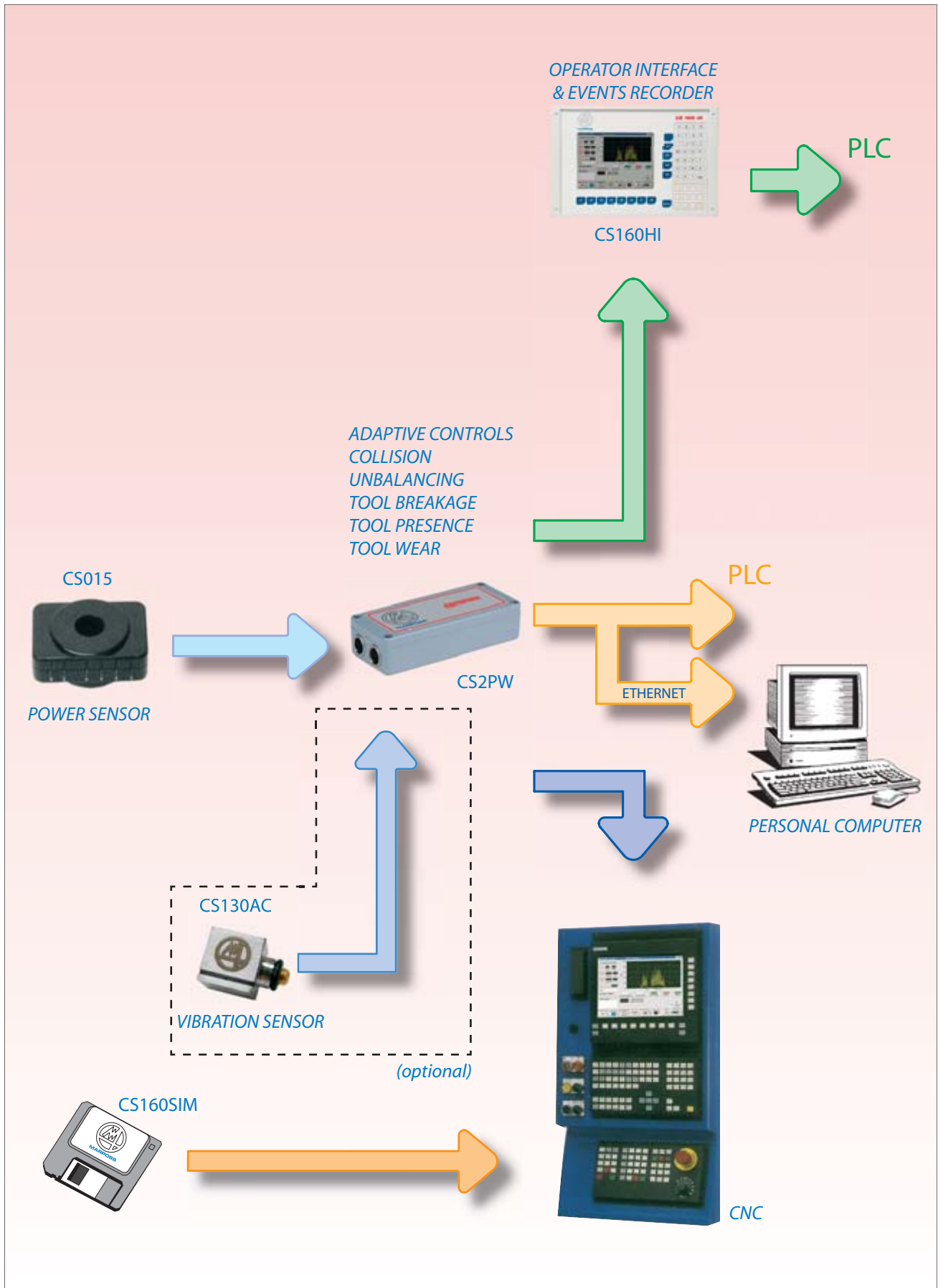
Benefits

- Reduction of dead times in the manufacturing process
- Maximum use of the tool
- Better quality of the manufactured item

Typical applications

- Drilling
- Milling
- Grinding
- Tapping
- Adaptive Control

The system



- Touch Probes
- Transmission Systems
- Laser
- Software
- Toolsetting Arms
- Tool & Process Monitoring
- Accessories

Power sensors

Marposs power sensors measure the power absorbed by the spindle. The use of these sensors makes for easy and fast installation both on new and existing machinery (retrofitting).

This type of sensor is particularly effective in processes where the tool or part rotate.

Parameters which can be controlled:

- Tool wear and tear
- Tool presence
- Adaptive control of procedures
- Overloading
- Loss of load



CS130AC

The CS130AC is a compact, high precision accelerometer. Its small size makes it very easy to install without altering the vibrating mass to be controlled. It can also be mounted inside High speed spindles, motors, pumps etc.

The Marposs accelerometer is particularly suitable for monitoring vibration caused by rotating and spindle parts.



Monitoring without sensors or external hardware

Marposs CS2SIM is a tool monitor composed entirely of software, installed directly in the Numerically Controlled System as an OEM application. This system can read drive and spindle power values directly from the machine. It sends and receives data (alarms, cycle selection, etc) directly to and from the N.C. or PLC using OPC protocol software.

The benefits of using this type of monitor are:

- Extremely reliable measurement of the power being controlled
- Total absence of external hardware - the elimination of electronics and wiring
- Reduction of installation time



Programming and management of the CS2PW device

The CS2PW is easy to program using the software provided. It may be installed directly in the Numerically Controlled System or on an external PC.

(Windows 95 or Windows XP Support)

The screenshot displays the CS2PW software interface with several key components:

- Data Table:** A table with columns: Date/Time, CH/AL, Maximum Value, Duration (ms), Level, and Duration Lev. It lists 20 data points for CH1 Col.
- Channel 1 Cycle Setup:** A configuration window for Cycle 0 Parameters, including Level and Time settings, and a 'Delete Cycle' button.
- Cycle Modification Table:** A table with columns: AL1 Level, AL1 Time, AL2 Level, AL2 Time, AL3 Level, and AL3 Time. It shows 10 rows of alarm level and time settings.
- Waveform Graph:** A graph showing Amplitude vs. Time (3 Sec./div) for Ch 1 (PW). The amplitude ranges from 0.0 to 20.0.
- Control Panel:** A bottom section with various indicators (Enabled, Collision, Alarm 1-3, AL Disabled) and numerical displays for Max (7.60), Value (1.52), Cycle (4), and other parameters.



MARPOSS
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For a full list of address locations, please consult the Marposs official website

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Marposs has an integrated system to manage the Company quality, the environment and safety, attested by ISO 9001, ISO 14001 and OHSAS 18001 certifications. Marposs has further been qualified EAQF 94 and has obtained the Q1-Award.

