

PROCESS MONITORING

X1 SMART PROCESS MONITORING FOR SHEET METAL FORMING



MARPOSS



www.marposs.com

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

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Marposs has an integrated system for Company quality, environmental and safety management, with ISO 9001, ISO 14001 and OHSAS 18001 certification. Marposs has further been qualified EAQF 94 and has obtained the Q1-Award.



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POWERFUL PROCESS MONITORING FOR SHEET METAL FORMING



X1

Your benefits

- ⊕ **Machine and tool protection**
- ⊕ **In-process quality control**
- ⊕ **Increased productivity due to extended run-time, reduced downtime and stroke optimization**
- ⊕ **Minimized tool and scrap costs**
- ⊕ **Process optimization for more stable processes**
- ⊕ **FactoryNet®4.0 interface to connect the DC / MES / ERP systems**

Equipment

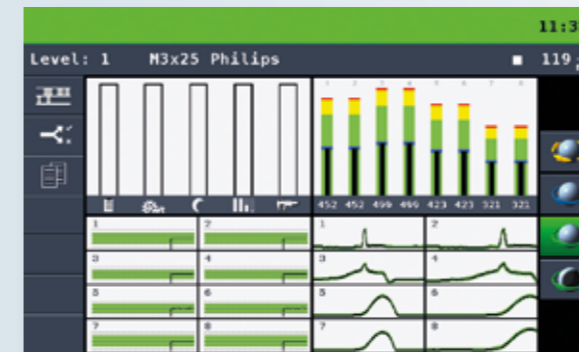
- Up to **12 monitoring channels** with automatic calculation of amplification and monitoring window
- Up to **16 digital inputs and cam outputs**
- **7" touch display** with fast image refresh and high resolution
- Various, flexible **counter functions**: order, tool, dosage, quality counter and many more.
- **Stop & Go diagram** shows the run-time behavior of the machine in detail
- **Device protocol** records date, time and reason of process failures
- **Data collection terminal masks** ready for FactoryNet®4.0

Monitoring

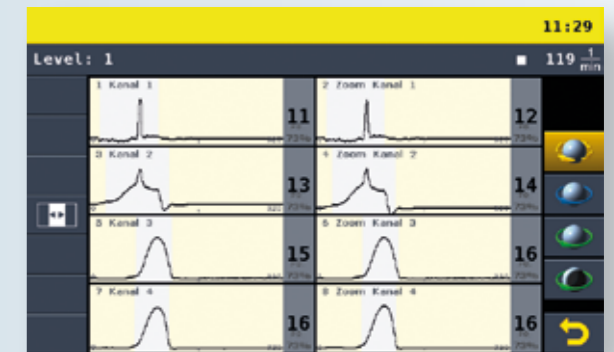
- **Multi-sensor evaluation** (force, UltraEmission, AcousticEmission, distance etc.)
- **Quattromatic**: Double, dynamic envelopes, inner envelope sorts, outer envelope stops
- **Systematic**: Precise monitoring of tool damage
- **Zoom**: Accurate monitoring of failure-critical signal sections
- **Short- and long-term trend**: Comprehensive monitoring of short- and long-term behavior
- **Tool protection** for feed and ejection monitoring
- **Super stop** to control hydraulic overload systems
- **Sum and difference force** calculation and monitoring

Operation

- **Cockpit mask** shows all relevant information at-a-glance
- **Optimizer** automatically calculates the optimum envelope curve
- **Adapt function** optimizes the envelope curves in the event of random process fluctuations
- **Spot Control** automatically calculates correct monitoring windows
- **Comfort interface** helps the operator by reducing unnecessary operator intervention
- **Four operating levels** control the access to permissible device settings
- **Double operation** with connection of an additional PC



The cockpit mask provides all relevant information at-a-glance: counter readings, maximum forces, envelope curves and trend limits.



The multi-channel mask shows all process signals including envelope curves, chosen settings and process stabilities.



Up to 16 binary feed, ejection, and coil end sensors are visualized and monitored in an overview mask.



Up to 200 alphanumeric product numbers can be stored in the tool memory.



The X1 system is prepared for connection to the FactoryNet®4.0 Software from Marposs (option).

Technical Data

- Monitoring:** 1 - 8 (12) analog channels
4 - 16 digital in-/outputs
- Power:** 24 V / DC / 23 Watt
- Environment temp.:** +5 °C to + 40 °C
- Interface:** 1 Ethernet / TCP/IP
1 serial
- Sampling:** Pseudo angle, option:
angle or stroke-dependent
- Dimensions:** 275 x 245 x 195 mm
(W x H x D)
- Weight:** 6.5 kg (incl. U-holder)