BRANKAMP

X1

PROCESS MONITORING

SMART PROCESS MONITORING
FOR SHEET METAL FORMING

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MARPOSS

Side tabs (left): Stamping | UltraEmission | AcousticEmission | Process Data Collection | X7 | X5 | X3s | X1 | T1 | C-THRU 4.0

Side tabs (right): Body Panel Presses | Drawing Presses | Stamping/Bending Presses | Fine-Blanking Presses | Hydraulic Presses | Servo Presses | Gap Presses | Multi-Station Presses | Punching Presses

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**
- ⊕ **C-THRU 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
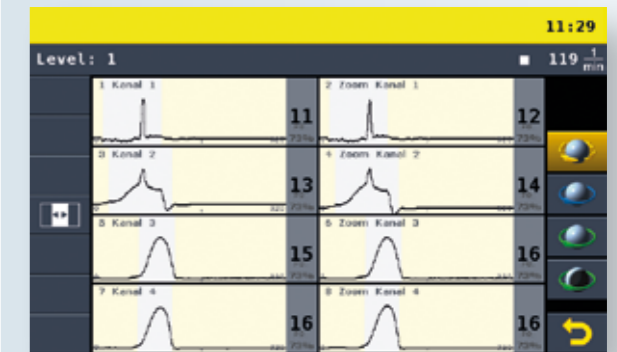- **Data collection terminal masks** ready for C-THRU 4.0

Monitoring

- **Multi-sensor evaluation** (force, UltraEmission, AcousticEmission, distance etc.)
- **Quattromatic**: Double, dynamic envelopes, inner envelope sorts, outer envelope stops
- **Systomatic**: 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, choosen 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 C-THRU 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)