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BRANKAMP

X5 PROCESS MONITORING **POWERFUL PROCESS MONITORING** FOR SHEET METAL FORMING

POWERFUL PROCESS MONITORING FOR SHEET METAL FORMING



Equipment

- Up to 24 monitoring channels with automatic calculation of amplification and monitoring window
- Up to 16 digital inputs and cam outputs
- 12" touch display with fast image refresh and high resolution
- High resolution signal acquisition (24 Bit A/D conversion)
- Various, flexible counter functions: order, tool, dosage, maintenance, shift and stroke
- Stop & Go diagram shows the run-time behavior (up to 90 days) with spm graph
- Device protocol records failure curves incl. date, time and reason of process failure
- Extensive tool and product storage
- Data collection terminal masks prepared for C-THRU 4.0 and XBrowser

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
- Brake angle monitoring visualizes stop problems of the machine
- Sum and difference force calculation and monitoring



Your benefits

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

Operation

- · Cockpit mask shows all relevant information at-a-glance
- Optimizer plus calculates the optimum envelope curve for each channel
- Adapt function optimizes the envelope curves in the event of random process fluctuations
- Monitoring assistant for a flexible adaption of monitoring
- Teach-In for individual channels possible
- Toolmatic transmitting binary tool numbers of the plc to the unit
- 10 point calibration for each channel
- USB and network interface for process documentaion



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



The X5 shift counter records the number of pieces produced per shift, day and weeks. The machine performance can be compared over several weeks.

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1.22	E Logging						
	Info	Tool	Time	Date			
- T	Behälter-Füllstand Sortierer 1:0	88-23 5	16/87/52	09.03.2015			
	Behältergröße Sortierer 1 : 50000	XR -23 b	16:07:44	89.83.2015	2		
	Sortierdauer Sortierer 1 : 5	XR -23 b	16:07:37	09.03.2015	3		
	Grüße einer Dasierbas : 50000	X8 -23 b	16:07:27	89.83.2015	•		
	Eine volle Dosierbax austeoren	XR -23 b	16/07/21	09.03.2015			
	Anzahl Dosierboxen 16	XR-23 b	16:07:19	09.03.2015			
	Hillkurven-Empfiedlichkeit Kanal 6:25	XR-23 b	16/07:10	09.03.2015	,		
	Phasenwechsel Kanal 6 : Lernen	XR -23 b	16/06:59	09.03.2015			
	Optimizer Kanal 6 : aus	XR-23 b	16/86:57	89.83.2915			
	Naximalkraftprenze Kanal 2 : 250	XR-23 b	16/06:50	09.03.2015			
-	Phasenwecksel : Oberwachen	805	16/05:43	09.03.2015	1		
	Anzahl Desierboxen : 9	805	15:42:32	09.03.2015	2		
	Phaseswechsel : Einstellen	805	15:42:15	09.03.2015	3		
	Phasesmechael : Feaster einstellen	805	15:57:49	06.03.2015			
	Füllstand der aktuellen Dusierbox : 5000	805	15:56:54	06.03.2015	5		
	Anzahl Dosierboxen 10	805	15:54:35	06.03.2015			

This protocol stores the last 250 operator inputs with the date, time and the used tool number.

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C-THRIL4.0

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	Date	Time	Duration 4	Tool	189*	
	Date 65.08.2014	Time 11:59:21	Euration 4	Tool P5 - 83244	Hillkorve [5]	
001 002	Date 05.08.2014 05.08.2014	Time 11:59-21 18:42:29	0.00.40 0.00.13	- Tool PK - 83244 PK - 83244	Millhorve [5] Za viele Feldtede	<
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001 002 003 004 005	Date 05.08.2014 05.08.2014 05.08.2014 05.08.2014	Time 11:50-21 19:42:29 19:41:49 19:30:43 19:37:39	Example 2010	Tool PN = 03244 PN = 03244 PN = 03244 PN = 03244 PN = 03244 PN = 03244	Hidhurve (S) 2u viele Fehltede 2u viele Fehltede Empany 8 Empany 6	•
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Body Pane Presses

Drawing Presses

Stamping/Bending Presses

Fine-Blanking Presses

Hydraulic Presses

Servo Presses

Gap Presses

lulti-Station Presses

Punching Presses

The device protocol records failure curves together with all process data.



Binary input signals can be monitored with up to three windows to allow fast fault recognition.

Technical Data

Monitoring:	1 - 8 (24) 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 2 USB
Sampling:	Pseudo angle, option: angle or stroke-dependent
Dimensions:	346 x 354 x 136 mm (W x H x D)
Weight:	10.5 kg (incl. U-holder)