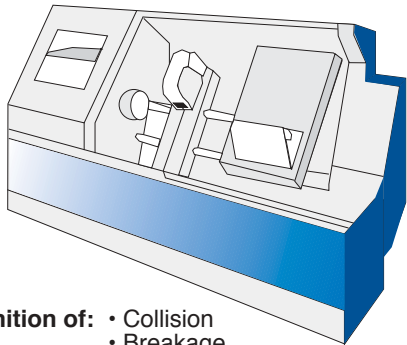


See. Optimize. Save.

Machine/Process

Evaluation

- Sensors for:**
- Force (absolute/ relative)
 - Strain
 - Power
 - Solid Borne Sound
 - Position
 - Torque
 - Hydraulic pressure
 - Vibration
 - Acoustic-Emission



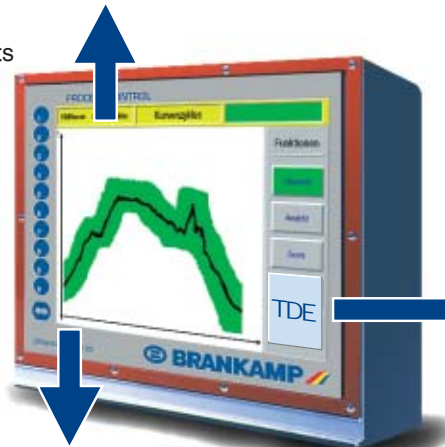
Our offer:

- Recognition of:**
- Collision
 - Breakage
 - Wear
 - Overload

- Your machines:**
- Multi-spindle machines
 - Rotary index machines
 - Transfer lines
 - CNC - lathes
 - Machining centres
 - Drilling machines
 - Hobbing machines
 - Turn broaching
 - Presses
 - Blanking presses
 - Single and two blow cold headers
 - Multi-stage presses
 - Thread rolling machines
 - Crimp machines
 - Robot

1 ProcessMonitoring

- Envelope curve
- Differential curve
- Moving mean
- dynamic and fixed limits
- Tool life counter
- Peak force
- Area
- Number of parts
- Diagnostics



2 WIS Worker-Information-System for process visualisation

See.

- Shift protocol
- Reasons of stoppages
- Weak points detection
- Histogram of process
- Trend display

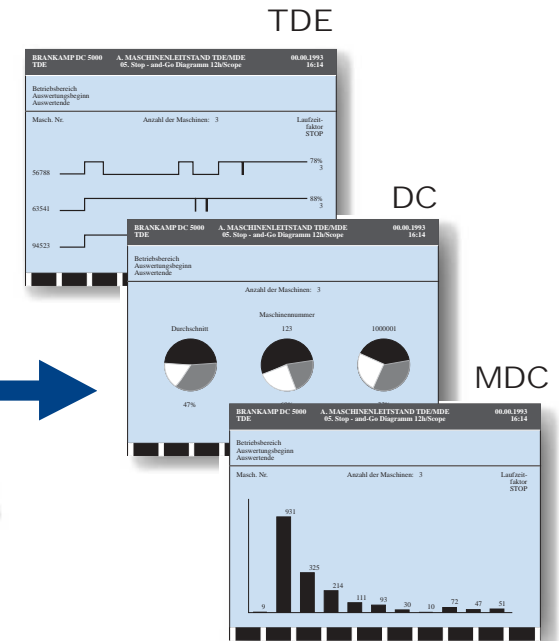
Optimize.

- Optimize process
- In-Process-Control of material
- In-Process-Control of machine condition

Save.

- Multi-machine-operation
- Ghost shift
- Optimize set up time
- Service life enhancement
- Non-stop production
- Production of quality
- Minimize costs of maintenance
- Costreduction
- Service life extension
- Machine/tool protection

3 Product information



Available on PC:

- Factory overview
- Down time
- Trend analysis
- Stop - and - Go - Diagram
- Pareto analysis of run time and stoppage

for:

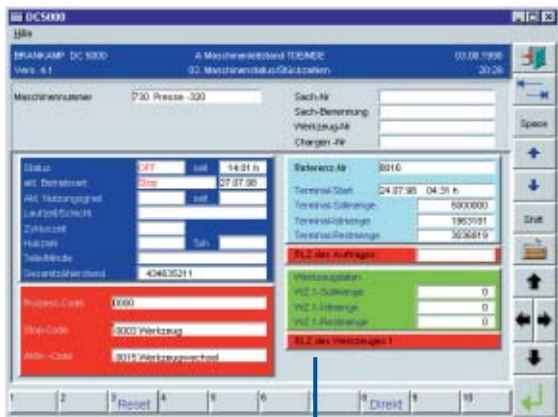
- Efficiency and utilization of single machines or entire shop floors
- Shift-, day-, week- and month analysis
- Order-, part-, tool-, and user evaluation

Forward Thinking



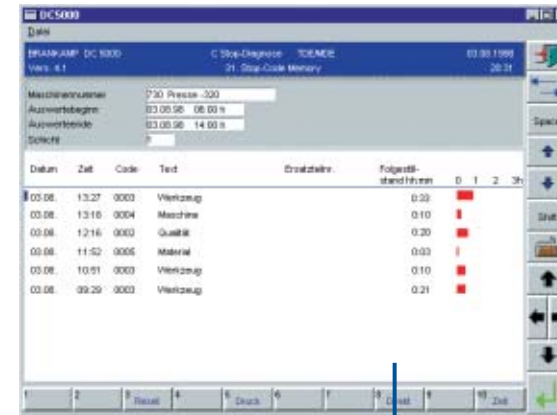
APR

Automatic Process Recording



Machine status/ Counters

All current machine, order and tool status at a glance.



Stop Code Memory

What disruptions occurred? How long were the stoppages resulting therefrom? An automatically prepared log of the manufacturing units.



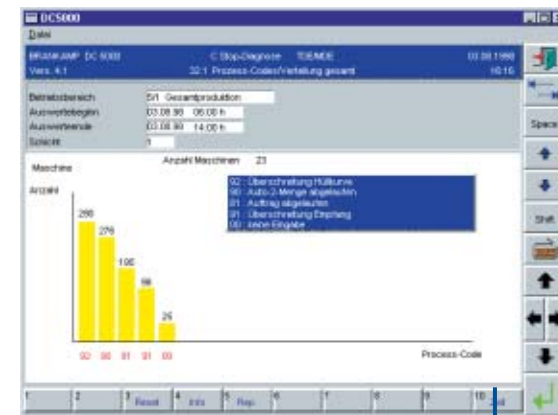
Stop and Go Diagram

A clear overview of machine running and down times for the selected period of time.

Runtime diagram 12 hours



The utilisation curve. Extended machine running times without disruptions make production during breaks possible.



"Production without stoppages"

Evaluation of the potential of machines.

DEUTSCHLAND

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