

## Tool and process monitoring

### Highlights:

- Small tools < 3 mm
- Detection of micro-chipping on cutting boards
- Strong fluctuations allowance
- Thread quality "In Process" Monitoring

**Better be safe. Safely be better.**

# Tool and process monitoring

## Description

Tool and process monitoring solutions from MONTRONIX are used worldwide in the metalworking industry. Their application areas cover almost all methods of machining operations.

By detecting and diagnosing production problems, the Montronix monitoring solutions help to reduce production costs and downtime.

## A variety of sensor options

Montronix develops and uses high quality sensors providing optimal signals. Only clear signals offer optimal evaluation at the highest resolution possible.

Sensorless process by digital drive data (DDD) is our standard. Intelligent algorithms enable a reliable process monitoring.



DDD



Force



Power

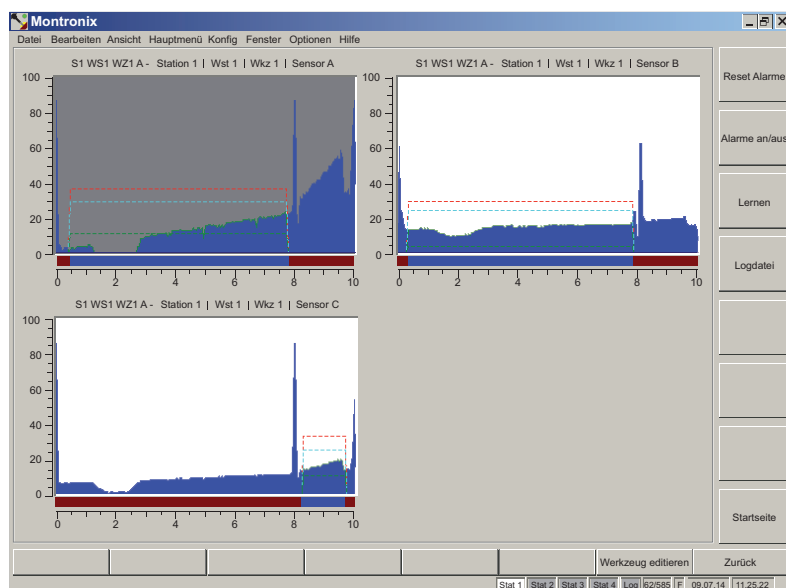


Torque



Vibration

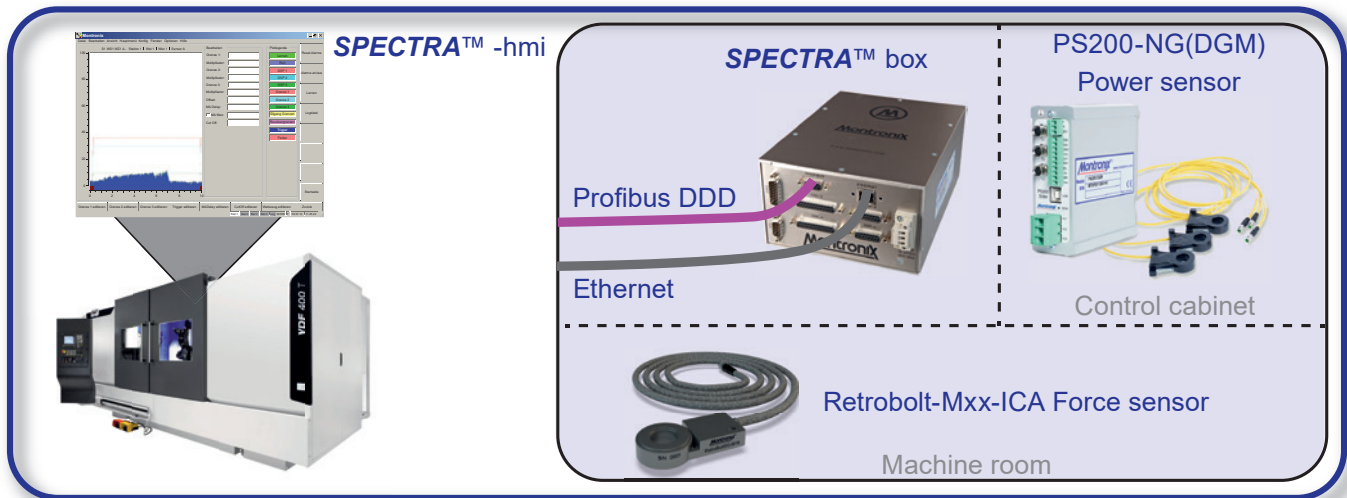
## Process visualization software *SPECTRA™* -hmi



The newly developed process visualization software Spectra™ -hmi is technically forward-looking:

- Free configurable display up to 12 sensor windows
- User administration with 7 levels of access, protected by password
- Graphical change in the monitoring limits
- Offline log file player with filter functions
- Operating system independent
- Quick adjustment of parameters (Multi Edit, Quick Edit)

## ■ Example execution of a turning machine



### ➔ Monitoring of the turning process

- ✓ Base: For capitals tool breakages
- ✓ MONTRONIX recommendation: Micro breakouts, quality assurance, collision

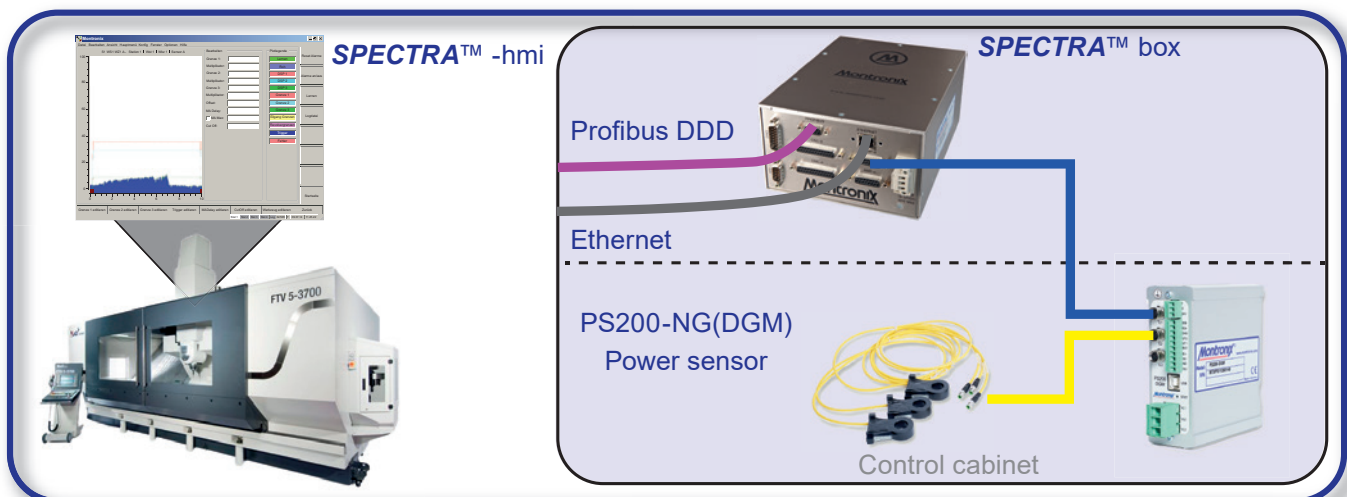
with: Digital Drive Data  
and Force sensor

### ➔ Extension: Monitoring Lifetools

- ✓ Drilling, milling and threading processes
- ✓ For tools  $\varnothing < 3$  mm shredding machines

with: Digital Drive Data  
and Power sensor

## ■ Example execution of a machining center



### ➔ Monitoring of the cutting process

- ✓ Drilling, milling and threading processes
- ✓ For tools  $\varnothing < 3$  mm shredding machines

with: Digital Drive Data  
and Power sensor

### ➔ Extension:

- ✓ Collision protection and vibration overload

with: Vibration sensor  
or **PulseNG**

## GLOBAL COMPETENCY



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