



Work Piece and Tool Breakage Control via Monitoring of Motor Torques



for wire
bending machines

Automatic stop of
the machine in case
of work piece or tool
breakage

Decreasing
downtimes

Reduction of
repair costs

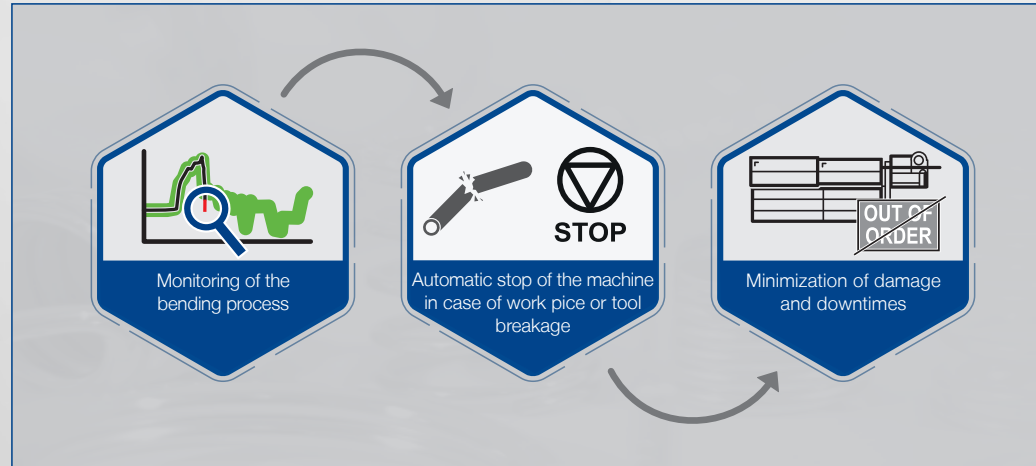
Reduction of
operating errors

Increased security
during unmanned
operation

Situation

- If the breakage of a work piece during the bending process is not detected, the bending tools and the bending machine itself may get damaged
- The machine may be stopped and unplanned downtimes and high repair costs can be the result
- In case of critical bending sequences an operator must therefore always be present to monitor the bending process

Solution



- *iQtorque* for bending machines detects work piece as well as tool breakages and stops the machine automatically, either immediately or at the end of a cycle, depending on the settings used
- Possible damages to machine and tools are minimized
- The individual machine axes are monitored by an envelope curve of the motor torque

Requirements

- No changes to the bending process once the axes are monitored, e. g. changing the override
- Only available for machines that are equipped with a Beckhoff control
- Additional equipment is not monitored, e. g. bending-after-the-cut unit
- In-process monitoring starts from the second workpiece