

Monitoring of Thread Cutting Process

Example of Use

For 100% Quality Control of Thread Cutting Processes the Use of a Special Technology is required.

Very often the quality of thread cutting processes has to be monitored. Especially with very short process periods this monitoring can not run via the monitoring of the active power of the spindle or the power of the feed axis motor. This is because in the active power the cutting forces as well as the acceleration forces are combined and can not be separated. Typically the cutting forces are much smaller than the acceleration forces. Especially when extracting the tool, chipping jams can occur but can not be detected with active power only. Therefore special torque- and force sensors come into use. For the data communication industrial Bluetooth is used. The energy is transferred inductively.

The monitoring of thread cutting is possible and therefore no successive manual or automatic control systems are needed!

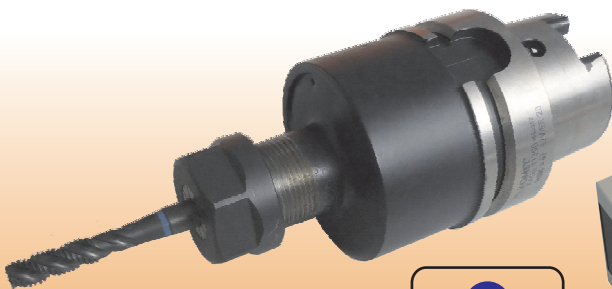
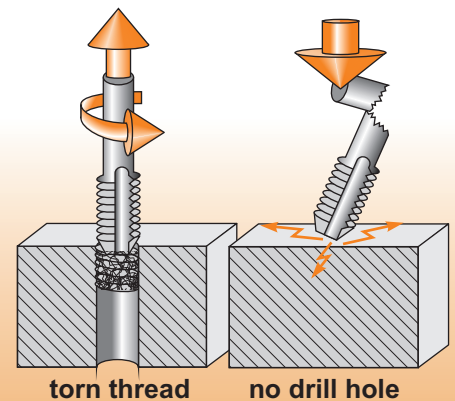
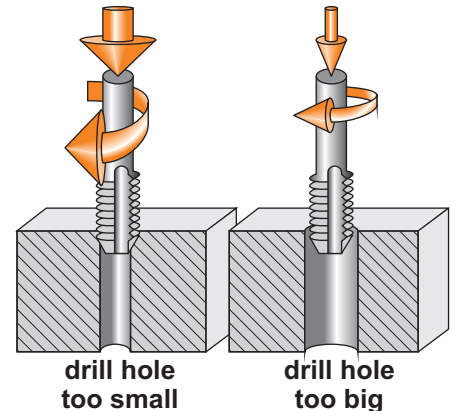
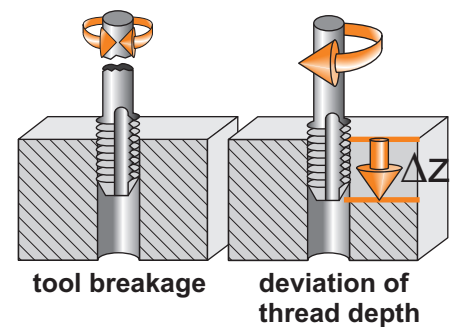
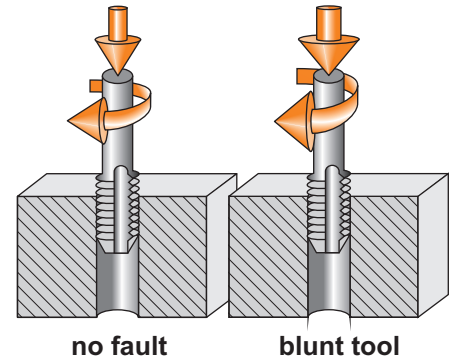
With the direct torque- and force measurement on the tool, the monitoring is not effected by negative effects such as friction or acceleration of the axis motors. Only process force is measured. To enable the monitoring, the measuring values are transmitted wireless from the rotating tool holder to the ToolScope via industrial Bluetooth. The energy is transferred to the toolholder inductively.

100% Monitoring

The handling of the Brinkhaus System is very easy and comfortable. They offer a simple way for a 100% thread cutting monitoring and therefore a 100% quality control of the production process.

The following can be monitored:

- ✦ Breakage
- ✦ Deviation of the core diameter
- ✦ Deviation of the thread depth
- ✦ Damage of thread drift
- ✦ No drill hole
- ✦ Wear



Data communication
via Industrial
Bluetooth

