

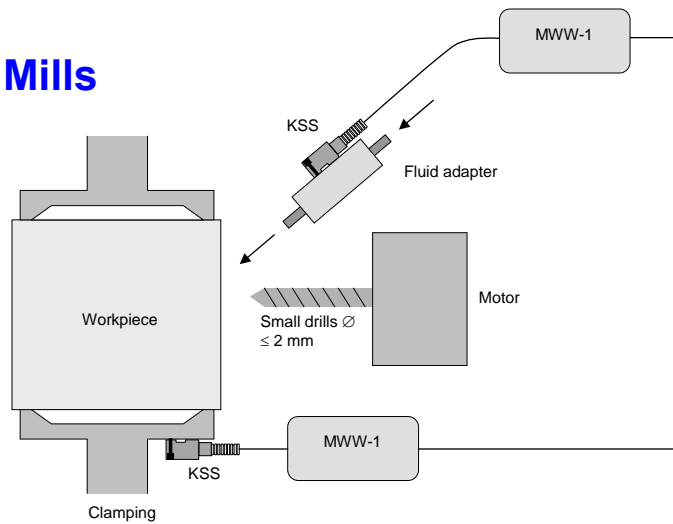


Monitoring Small Drills & Mills

($\varnothing \leq 2 \text{ mm}$)

Target - setting

- Detection of tool breakage
- No broken driller parts in the workpiece
- Safety that all holes are drilled
- Increasing workpiece quality



Typical use

- Machine centers
- Rotary transfer lines
- Special purpose machines

Easy monitoring

- Tool breakage by KSS (if application near the process is possible)
- Broken tool parts in the workpiece

Advanced monitoring

- Tool wear (depends on the tool material)

Signal

