



KISTLER
measure. analyze. innovate.

DOWN TO THE SMALLEST FORCE

From R&D insights to production
monitoring

From measurement to improvement

Whether milling, drilling, turning, grinding, or other machining processes, measurement technology helps increase efficiency and quality while reducing costs in research and development as well as in production.

To achieve the ideal machining process and zero-defect production, many parameters need to be considered. Our piezoelectric dynamometers reliably and accurately measure cutting forces during machining operations in research and development. The insights gained from cutting force measurements are used to optimize tools and machining processes.

For tool monitoring in production, we offer highly integrated force sensors as well as sensors for acceleration and acoustic emission during machining processes. The measurement technology provides real-time insights that help improve the process, optimize tool life, and enable process control.

www.kistler.com/cutting-force

Overview



PTS App (2935A)

Data acquisition and evaluation software



ICAM-B (5073B)

Industrial multipurpose charge amplifier



Telemetric measurement system TMS (5190A, 5290A)

Single-channel charge amplifier with telemetric interface



Stationary dynamometers

Multicomponent force and torque measurement



Wireless rotating cutting force dynamometer (9170B)

Fz max. ± 20 kN, Mz max. ± 100 N·m



Wireless rotating cutting force dynamometer (9171B)

Fz max. ± 30 kN, Mz max. $\pm 1,000$ N·m



Empowering your machining processes:

Cutting force measurement solutions for R&D and production – engineered for maximum sensitivity

R&D

Stationary dynamometers

Delivering research-grade measurement performance



Rotating cutting force dynamometers (RCDs)

Wireless signal transmission for minimal installation effort



Process monitoring

Fully integrated sensory tool systems

For integration into machine tools (e.g. swiss-type)



Flexible process monitoring of lathes on the turret

For easy signal integration in moving structures (e.g. tool turrets)



PTS App

Data acquisition and evaluation software



Performance



Simplicity



Flexibility



Integration

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