

## FMS Force Monitoring System

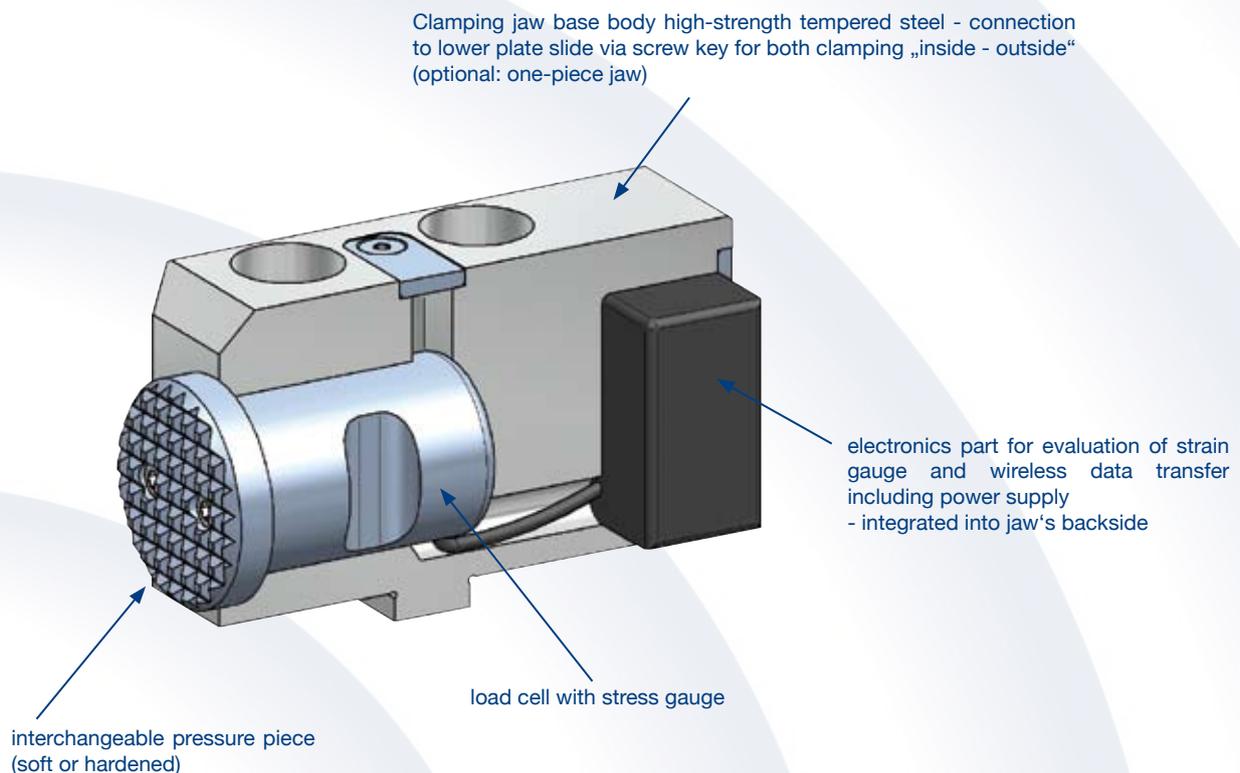


# FMS – Force Monitoring System

The holding force of a clamping device during mechanical tooling is of special importance. It is relevant for tooling quality, but also for the safety of the operator, the workpiece and the machine tool. Especially during the tooling of bigger components with multi-day clamping and numerous shift changes, the monitoring of clamping forces via constant data transfer is safety-relevant.

All currently available monitoring systems, no matter whether dynamic or static, cannot capture the readings of the actual clamping situation. With the intelligent clamping jaw FMS from JAKOB the customer receives a reliable and easy-to-use monitoring system, that constantly transmits the current clamping forces of all jaws telemetrically. The readings can be transmitted to the included portable device, to a laptop, or directly to machine control.

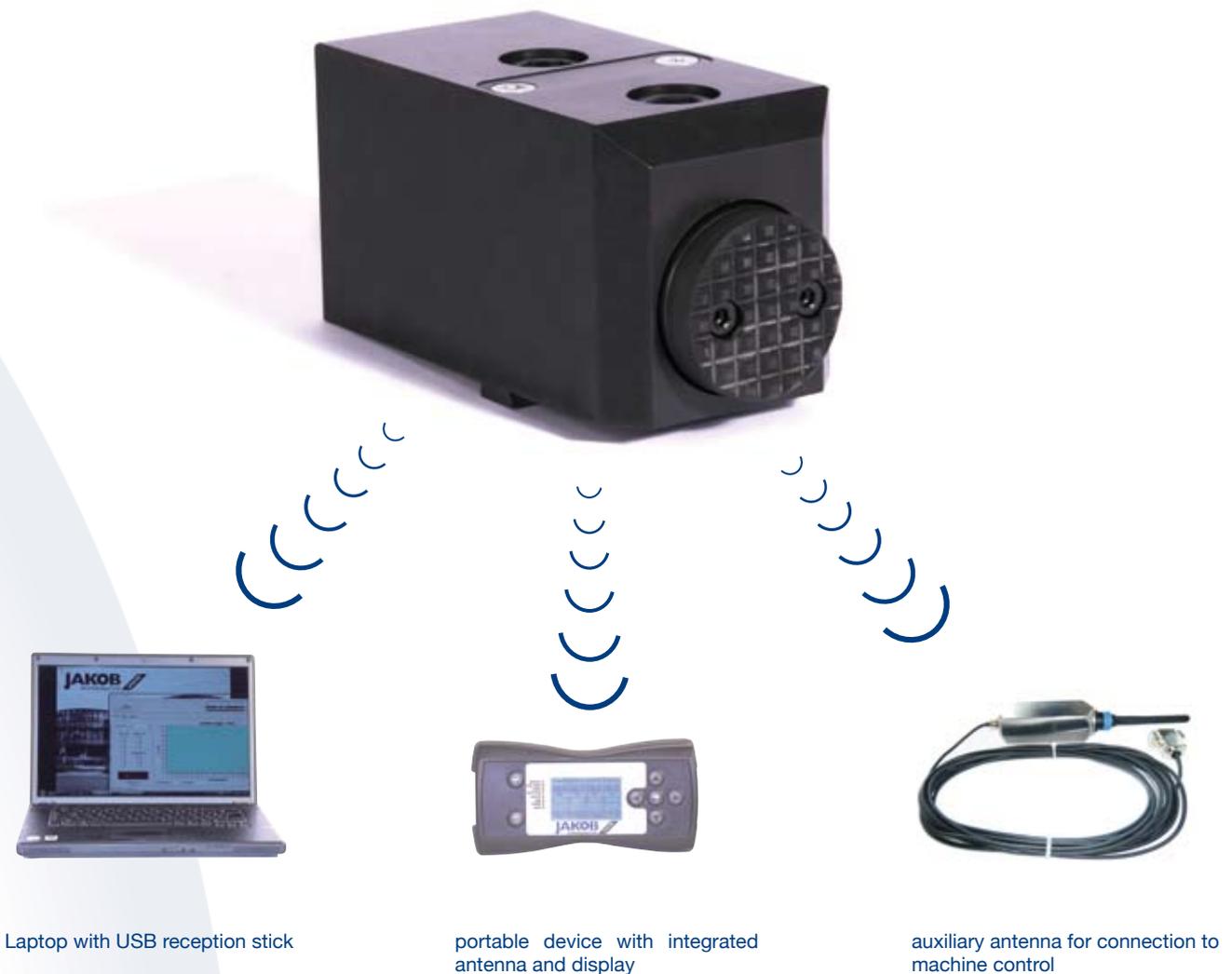
If the clamping force during tooling sinks below a threshold set by the customer, a signal is immediately generated, which can be used for emergency shutdown by machine control.



# FMS – Force Monitoring System

## Functions of the monitoring system:

- /// robust strain gauge load cell measures the clamping force with high accuracy
- /// clamping force readings are sent to a evaluation and sending unit
- /// readings are sent to the portable device, laptop, or machine control wirelessly (WLAN 2,4 GHz)
- /// the readings are evaluated and displayed on the portable device
- /// portable device runs on rechargeable battery which can be recharged using the docking station
- /// Dockingstation kann (optional) mit Alarmausgängen beschaltet werden



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## Field of application - example application

The FMS (Force Monitoring System) is ideal for installation in faceplates and jaw boxes of lathe, grinding and special machine tools. We recommend the use in combination with the proven power clamping screws from JAKOB (types MSP, MSPD, HSP). This ensures extremely high clamping forces and high stiffness, while maintaining ideal operational safety.

This type of force monitoring and the telemetrical data transfer is also transferable to other clamping solutions from JAKOB - group's product range.

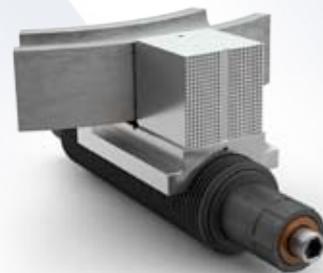
We are looking forward to receiving your inquiry.



faceplate



jaw box



power clamping screw MSP

## Advantages of the monitoring system:

- /// monitoring of clamping force during machine setup (clamping mode)
- /// monitoring of clamping force during operation (operational mode)
- /// no downtime required for clamping force measuring
- /// higher operational safety thanks to alarm in case of clamping force loss
- /// higher operational safety long-term processing
- /// flexible application due to wireless transmission of readouts

