

# Dynamic Measurement of High-Speed Presses

## Motivation

According to the current state of research and technology, proof of the machine or process capability of high-speed presses, i.e. high-performance presses with stroking rates of up to 2000 strokes/min, is provided by means of static test routines. However, the highly dynamic operating conditions during production are decisive, and so far they cannot be recorded and characterised.



Figure 1, High-speed press

## Approach

Over the course of the project, a complete dynamic testing system for high-speed presses will be developed and built, consisting of several tool and measuring modules and an evaluation routine. The tool modules apply specified test boundary conditions, while the measuring modules record displacements and tilts over the duration of the test process.

## Goals

The primary goal of the project is to record the dynamic measurement of high-speed presses and their highly dynamic operating conditions. The developed test system is scalable and modular to the extent that it can be adapted to different press types. The collected data form the basis for the development of parameters for the evaluation of presses and, in connection with the test system, represent a first step towards the standardisation of dynamic testing.

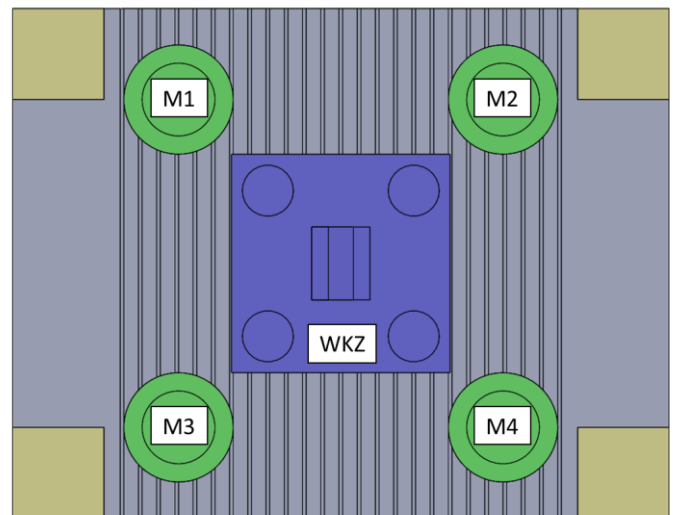


Figure 2, Measuring setup, M1-4: Measuring module, WKZ: Tool module