

Bending Fatigue Testing of Tubes

Bending Fatigue results in the outer surface being subjected to alternating tensile and compressive stresses. We are producing bending fatigue testing systems, including cantilever plane-bending fatigue testing machines for testing of tubes that deliver the fuel from the high-pressure pump to the combustion burner systems, testing of common rail high-pressure fuel injection lines, high-pressure fuel tubes for gasoline direct injection engine, oil & water tubes for turbo charger or flexural fatigue testing of any other pipes.



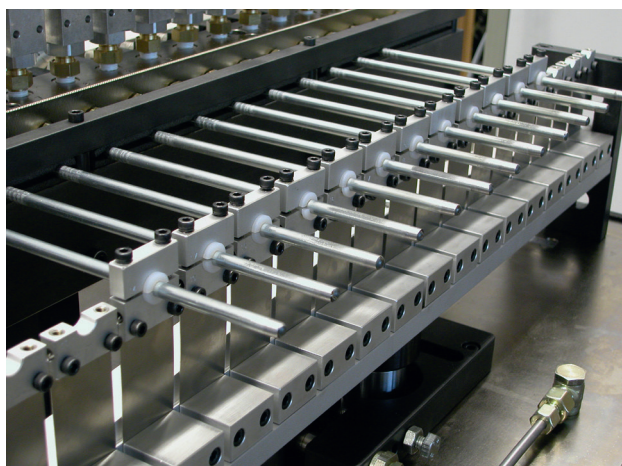
This dynamic test systems allows to test up to 18 pipes at the same time with test frequencies up to 20 Hz and above.

The pipe clamping and guiding parts are exchangeable for the different tube diameters.

The specimens are clamped rigid on one tube end and guided by a spring supported guides that applies the axial bending displacement from the servohydraulic actuator which is integrated in the machines base onto the specimens.

The hydraulic power unit (HPU) is integrated in the machines base, making this test systems compact without the need of additional space for the hydraulic power supplies.

These systems are supplied with a CE-certified safety enclosure to prevent operator access to the test space.



An internal pressurizing system is available that detects cracking on each specimen via pressure drop.

