



Actuation Robots

Pedal Actuator

- Reproducible pedal operations with high dynamics and precision
- Static and dynamic measurement of the pedaling properties and associated vehicle reactions

Principle: Servo-hydraulic
Limits: $F = 0 \dots 1500 \text{ N}$
 $v = 0 \dots 1000 \text{ mm/s}$
Modes: Force controlled,
 Length controlled,
 Ramped actuation,
 Oscillated actuation,
 Measurement while driving possible
Data collection:
 Pedal force, actuation path,
 Hydraulic pressure,
 BKV-pressure,
 Vehicle velocity,
 Vehicle deceleration



Stähle Autopilot SAP2000

Autopilot for computer controlled testing of Vehicles on the roller test stand

Advantages:
 No driver necessary
 Highly accurate and reproducible
 Coupling with the dyno controller possible
Limits: Force acceleration pedal: 100 N
 Force brake pedal: 350 N
 Force clutch pedal: 250 N
 Force Gearshift: 250 N
Accuracy: $\pm 1 \text{ km/h}$

