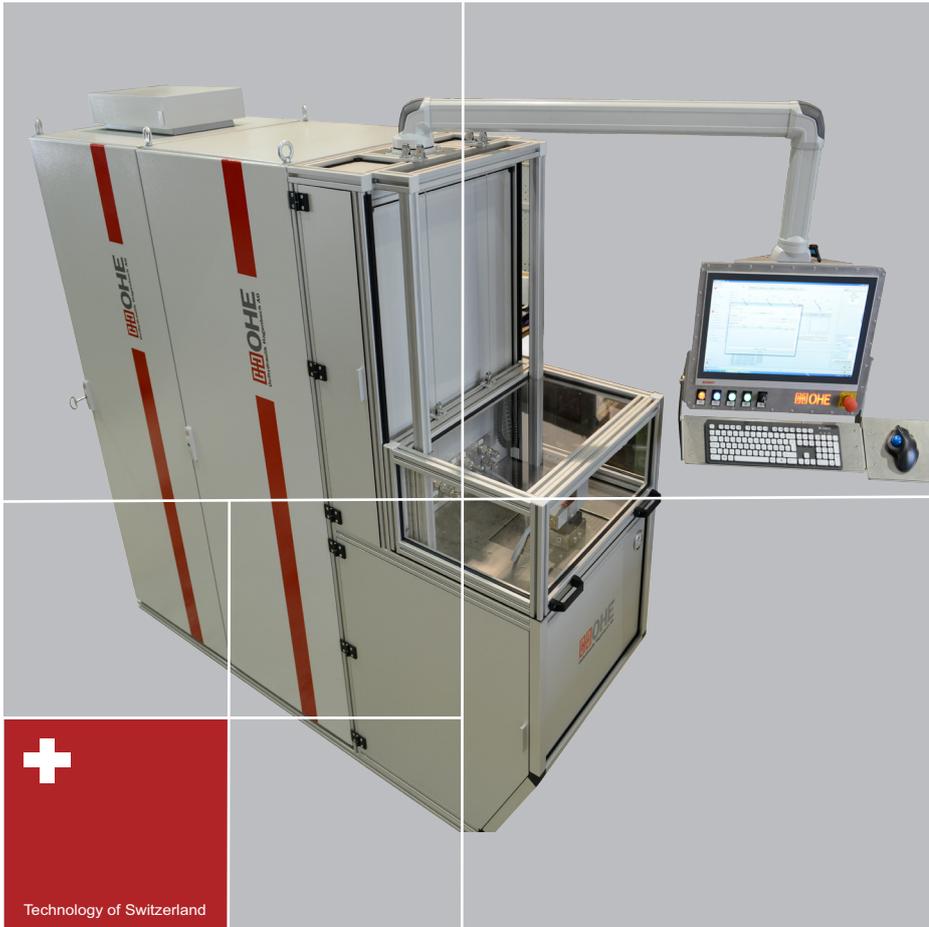


Servo Valve test bench

for development and service



- Facilitates testing nearly all common servo- and proportional valves
- Max. test pressure: 350 bar
- Nominal sizes: NG4, NG6, NG10 und NG16
- Prepared for additional sensors
- Facilitates testing special valves
- Premium measurement technology



Technology of Switzerland

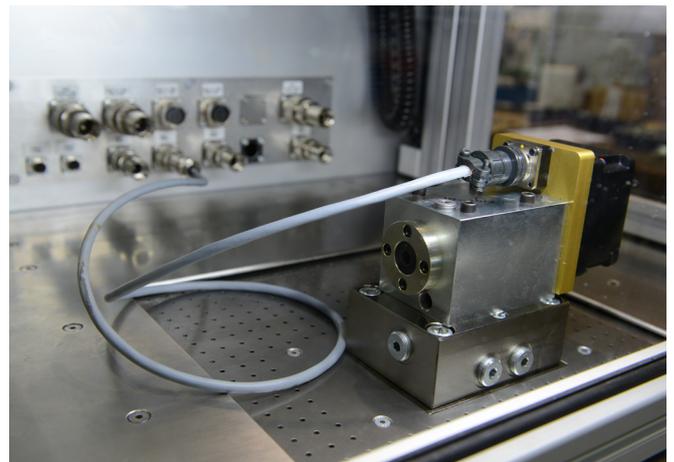
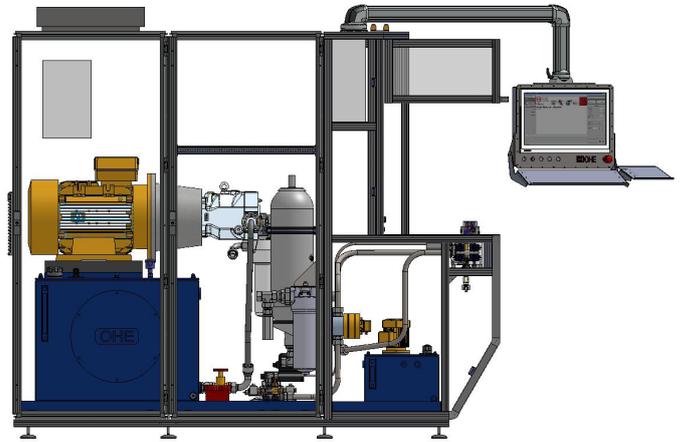
Hagenbuch Servo Valve test bench

Description

Hagenbuch's servo valve test bench facilitates extensive testing of proportional and servo valves. All common measurements can be conducted. The test stand is also suited for being used for service & repair works and product design. A number of additional interfaces allows for using the facility also for untypical tests or as universal test bench for hydraulic valves and components.

The test bench is a complete, ready-to-use system. Aggregate, test chamber, PC and controller are contained by a machine rack. Providing a flow rate of max. 120 l/min and max. 350 bar pressure, the test bench covers nearly all common application fields. The newly developed software and user interface offer various functions. Test protocols can be individually configured, equipped with your proprietary logo and additionally saved in PDF format.

A special feature is the broad range of possible applications facilitated by a large number of amplifiers for various signal ranges. Nearly all common signal ranges can thus be generated and measured. Apart from the available interfaces for valves the test bench provides additional measuring ports for other pressure sensors and even distance measuring systems with SSI signals or LVDT.



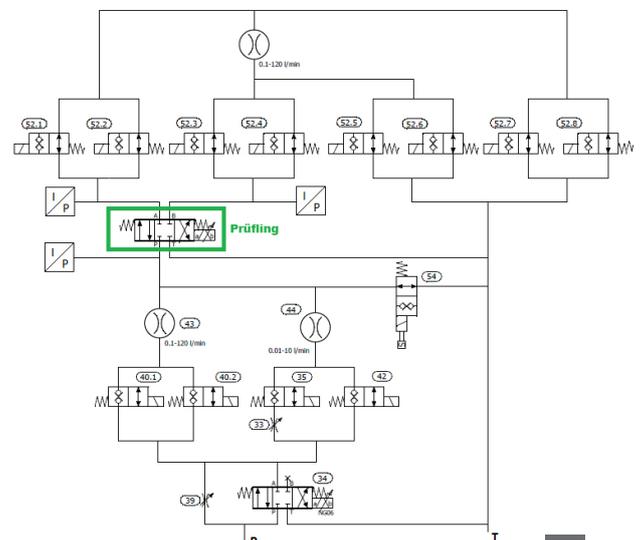
The Aggregate

The servo valve test bench has been equipped with an integrated hydraulic unit of 37 kW. An adjustable axial piston pump can generate max. 350 bar pressure and provides a flow rate of 120 l/min. The motor speed is amended by a frequency converter to the application range.

Measuring Equipment

All measuring devices integrated have been made by renowned manufacturers at highest precision and accuracy.

- Flow sensor in P 0.1 - 120 l/min.
- Flow sensor in P 0.01 - 10 l/min. (leakage-measurement)
- Flow sensor in A/B 0.1 - 120 l/min.
- Pressure sensors in P, A, B



Control

Control panel

Primarily, the test bench is controlled via the control panel. However, the software can also be installed on other computers in the network to facilitate monitoring from different stations.

- Touchscreen with mouse and keyboard serve to control the test bench
- Emergency switch
- Button and display for clearance and safety circuit

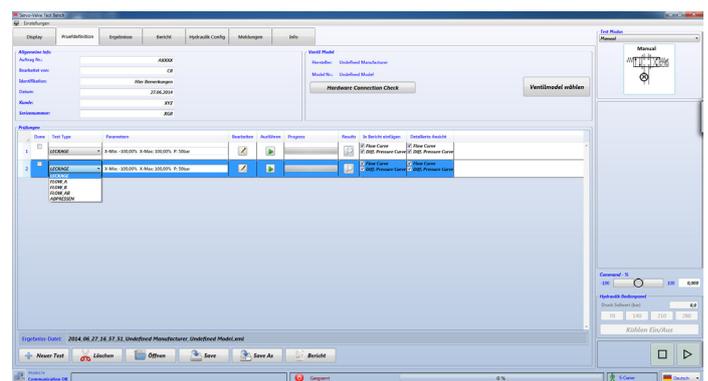
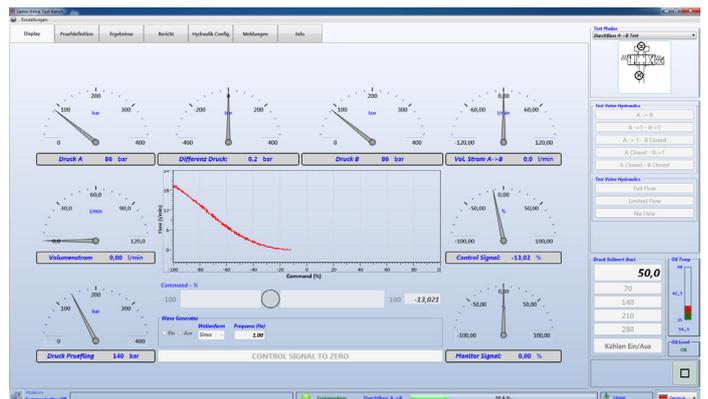


User Interface

Servo-Valve-Testing-Control-Studio is a GUI based on Windows. The software has been designed to ensure the test stand can conveniently be controlled via the high-quality touch screen.

The management of the set up servo valves significantly simplifies your work. All physical characteristics, interfaces, the connector plug assignment etc. are saved and can thus be selected when reused. Along with the selection, the GUI will initiate the respective installation and indicate which cable is to be connected with which plug.

- Status monitoring
- Test definition (valve type, test and report definition)
- Valve library-management
- Test report preparation as PDF

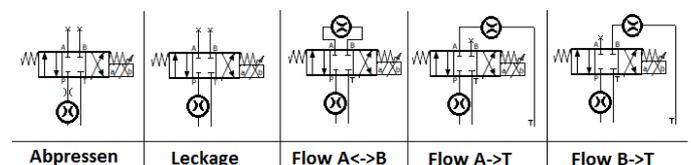


Automatic tests:

- Leakage-graph measuring
- Pressure-testing specimens at adjustable maximum
- Pressure discharge curves A -> B
- Discharge curves A -> T and B -> T

Manual Tests:

- Freely definable supply pressure
- Configuration valve connection
- Freely definable valve position
- Signal generator (sinus wave, rectangle and triangle)
- Flow control



Specifications

Technical specifications

Test pressure	up to 350 bar
Max. volume flow	120 l/min.
Valve sizes	NG-4, NG-6, NG-10, NG-16
Oil specification	mineral oil class ISO-VG46
Weight	ca. 800 kg
Aggregate power	37 kW

Supported valve types

Valves with integrated electronics

- Voltage-controlled valves (+/- 10 V) with voltage-monitoring-signal (+/- 10 V)
- Voltage-controlled valves (+/- 10 V) with current-monitoring-signal (-20...20 mA)
- Current-controlled valves (+/- 20 mA) with current-monitoring-signal (+/- 20 mA)

Valves without integrated electronics

- Bipolar valves, lower voltage range, operated with bipolar current signal in the range of -200...200 mA
- Bipolar valves, medium voltage range, operated with bipolar current signal in the range of -1000...1000 mA
- Unipolar valves, high voltage range, equipped with one or two inductors, operated with unipolar current signal of up to 2600 mA

Power supply

Mains supply	3 x 400 VAC and 230 VAC (PC)
Rated current	80A
Output	37 kW



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