Product Information
Modernization package for
Servo-hydraulic High-speed Materials Testing Machines

Modernized Schenck VHS 25/20

Typical high-speed testing assembly

Modernizations extend the life of your testing systems and add functionality whilst saving you money

Zwick modernization packages extend the life of your high-speed materials testing machine by replacing the older generation control system with the latest state of the art equipment. Zwick has modernized thousands of Zwick and other brands of testing equipment and our specially trained and experienced technicians will ensure that your system continues to give excellent service for many more years to come.

The decision between a modernization and purchasing a new meaterials testing system is primarily dependent on the value and the technical condition of existing components, as well as on your testing requirements.

In case of a modernization, the functionality of the testing machine is enhanced through the use of the *testXpert*® Master test program developed specifically for high-speed testing. Tensile strength, displacement, strain rate and the actual test speed can be graphically represented, evaluated and recorded as required. The software automates the control sequence of the testing machine and handles the data collection.
A high-resolution precision laser measuring system for the measurement of specimen deformation at high speeds is also available.

With a guaranteed spare parts supply, and access to the entire Zwick accessories program, customers benefit from the wide range of specimen grips and the latest versions of the testing software *testXpert*®. This ensures that the modernized system can be used well into the future, and updated as future needs arise.

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The modernization package comprises the following core components:

- Digital measurement and control electronics

- Transient recorder

- Testing software *testXpert*®

- Retrofit kits for existing components such as load cells and displacement transducers.

- Optional: new hydraulic power pack

Advantages / features

- Enables the system to meet the requirements of the latest test methods and Standards.

- Enables improved operation and reduced manual test set-up thereby saving valuable testing time.

- Extends the life of existing equipment at a lower cost than the purchase of a new machine

- Use of existing components such as force and position transducers, specimen grips, extensometers, and other tooling and fixtures.

- Reduced maintenance costs by using a modern and reliable controller.

- Incorporates the worlds leading intelligent testing software, *testXpert*® saving operator time on setting up and configuring the system.

- Purpose designed *testXpert*® master test program for high-speed test routines

- Transient recorder with 10 MHz sampling rate for advanced data recording and test results of the highest integrity.

- Complete safety concept which meets or exceeds the highest European regulations.

- Easy integrated into company IT infrastructures.

- Guaranteed long term and spare parts supply.

- Guaranteed and long-term service support.

ZMART

Zwick Modernization and Retrofit Technology

The *testControl* modernization package can be used to upgrade almost any brand of servo-hydraulic high-speed materials testing machines to the latest and state-of-the-art technology.

Special features or properties

Measurement value logging and display

- Test load and piston displacement
- Sampling rate of 10 MHz - for advanced data recording and test results of the highest integrity
- Four analog inputs - to accomodate the use of supplementary transducers
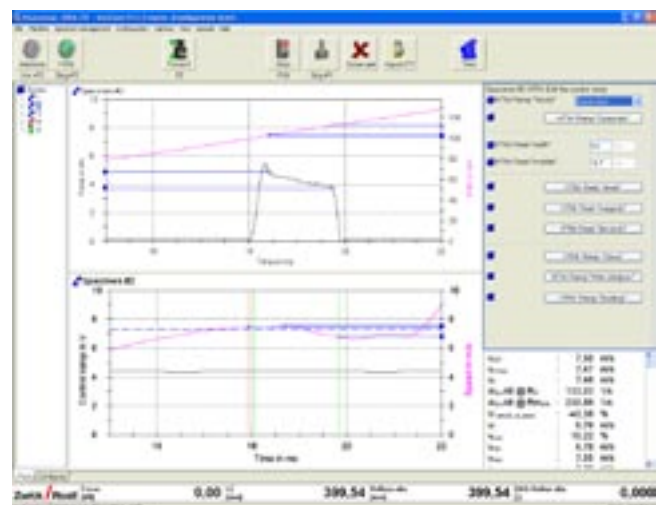
Data storing and processing

- Optional display of test load or stress, displacement, deformation or elongation
- Output of XY curves with the coordinates force/stress, displacment or deformation or elongation
- Automatic determination and documentation of the material characteristics and statistical data

Test sequence control and speed control

- Automatic stop at end of test or return to start position to minimize operator activities

Monitoring of safety limit values

- Of the test load
- Of the piston displacement

Example of the special *testXpert*® master test program for high-speed tests

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All Data at ambient temperature.

Changes for the sake of further development reserved.