

Product information

Modernization packages for Vibrophores



Modernized Instron Pulsator Type 1603



Amsler HFP 422 modernized with VibroWin

Modernizations add functionalities to your testing system, increase their value and extend their lifetime

The modernization of testing equipment is a reasonable alternative to purchasing new equipment, basically in case of testing machines with high nominal forces, special load frames or a complex periphery.

ZMART.PRO modernization packages bring your vibrophore or unbalanced mass pulsator back to state of the art technology unregardless of its type, model or age.

The decision between a modernization or purchasing a new materials testing system primarily depends on the value and the technical condition of existing components, as well as on your testing requirements. The integration of an existing testing equipment in the current testing process is another very important factor. Often, while thinking about a new solution it comes out the well thought-out the existing equipment was and how many details have already been optimized for years. This aspect becomes a very important subject in cost effectiveness calculations.

After modernization, a long term spare parts supply is guaranteed as well as the access to the entire Zwick

accessories program, such as extensometers and specimen gripping tools, and especially to the latest version of the testing software *testXpert*[®]. This ensures that the modernized system can be used well into the future, and updated as future needs arise. All Zwick testing systems are controlled by *testXpert*[®], thus reducing considerably operational training for the users.



Modernized Schenck unbalanced mass pulsator

Product information

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Modernization components

Zwick modernization packages consist of the following components:

- VibroWin digital measurement and control electronics
- *testXpert*[®] testing software
- New load cell or retrofit kit for existing load cell
- Retrofit kit for further, necessary components, such as extensometers
- New static and/or dynamic drive (if necessary)

ZMART.PRO - Zwick Modernization and Retrofit Technology

Vibrophores of most different types and diverse brands are brought into state of the art technology by using the VibroWin modernization packages.



VibroWin electronics

Special features and performance

Range of application	VibroWin
<ul style="list-style-type: none"> • Vibrophores of all manufacturers • Unbalanced mass pulsators of all manufacturers 	•
Measurement value logging and display	
<ul style="list-style-type: none"> • Machine control, measurement value logging and electronics galvanically isolated • Signal transmission by optocoupler • Two measurement and control channels, one channel for magnet current • Retrofit option for third measurement and control channel • Tests from 1% of nominal load • Measurement and control accuracy: <ul style="list-style-type: none"> - from 1% of static nominal load in static class 1 of read out value - from 1% of dynamic nominal load in dynamic class 2 of read out value 	• • • • • • •
Control	
<ul style="list-style-type: none"> • Force and displacement control • Customary PC, no additional interface boards • Adaptive control for mean load and force amplitude • High control stability per magnet control by PWM control • Tests with high damping • Approaching nominal values via adjustable ramps, no overshooting • Automatical alignment of the resonance system • Masses - load compensation • Easy to maintain, modular design 	• • • • • • • • •
Safety limit values monitoring	
<ul style="list-style-type: none"> • Hard- and software controlled limit values of the machine • Test limits monitoring via processor 	• •

Benefits / Features

- reliable spare parts availability
- guaranteed long term service support
- use of existing and functioning components, such as load cells and specimen grips
- validation of the testing system to latest quality standards
- Usage of the testing software *testXpert*[®] with the following Master test programs:
 - S-N test
 - multi stage continuous test
 - fracture mechanics compliant to ASTM E399
 - fracture mechanics compliant to ASTM E647
 - integration of the testing system into existing company network