

STABIL[®] VI

MODERNIZED VACUUM STABILITY TEST APPARATUS



The STABIL[®] (Modernized Vacuum Stability Tester) is used for the determination of the chemical stability and compatibility (reactivity) of energetic materials (especially propellants). The STABIL VI is a fully instrumental tester equipped with sensitive electronic pressure transducers, communication with PC (for direct control), continuous data acquisition, analysis and archiving.

The unique design of the STABIL VI completely replaces old mercury-containing apparatuses with non-toxic, safe and easy-to-operate precise instrumentation. Electronic pressure transducers allow for continuous measurement of the volume of decomposition gases evolved during the test. OZM Research continues its long and proud tradition of the electronic vacuum stability testers – the first generation of STABIL instrument was developed over 40 years ago in the Czech Republic. Today's STABIL VI is the latest generation of this long innovation process and raises the standard of excellence in the VST testing equipment worldwide.



STABIL – pressure transducers during experiment



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APPLICATIONS

The **STABIL VI** is frequently used for the determination of the chemical stability and compatibility of energetic materials and for quality tests of energetic ingredients. The test is able to discover chemical instability of energetic materials caused by the presence of destabilizing impurities, incompatibility with surrounding materials, or aging, with high sensitivity, precision and reproducibility.

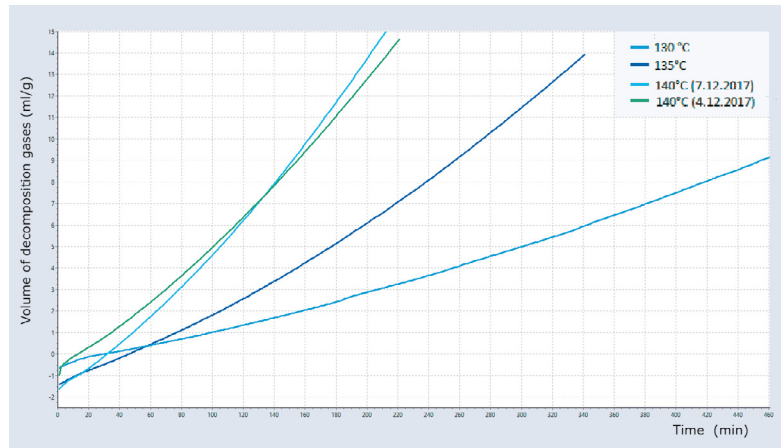
The **STABIL VI** finds its broad application in qualification, surveillance, manufacture, quality control and research and development of a wide range of energetic materials.

ADVANTAGES & FEATURES

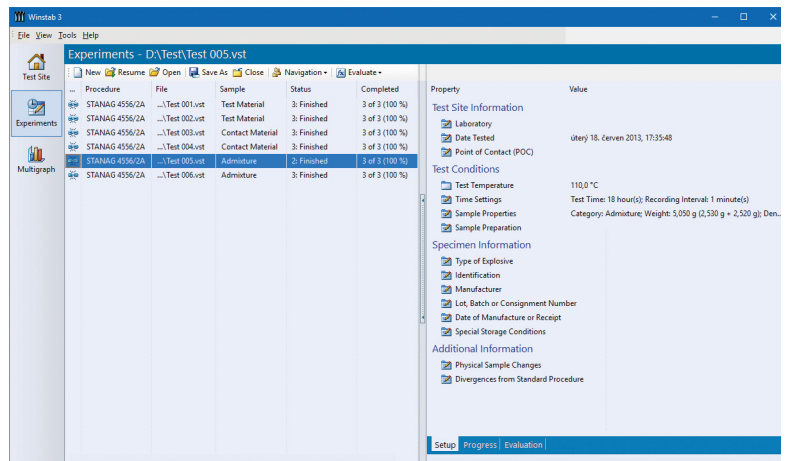
- ▶ Lift for automatic inserting and removing the test tubes
- ▶ 1–24 independent sample measurements may be conducted simultaneously (up to 12 samples in each heating block)
- ▶ Continuous Pressure-Time Record and automatic calculation for Volume-Time Dependence
- ▶ Automatic temperature calibration
- ▶ Rate of pressure rise and overpressure inside the test tubes are monitored by the software as a part of the alarm functions
- ▶ Independent alarm circuit for temperature monitoring (to avoid overheating)
- ▶ High precision and long term accuracy of pressure measurement
- ▶ Measurements at two different temperatures may be conducted simultaneously in two heating blocks
- ▶ Determination of the gas evolution rate or total volume of gases evolved by sample decomposition
- ▶ The **STABIL VI** tester can also be used with minor modifications for other customer defined tests, such as long-term (weeks, months) stability tests at lower temperatures.

COMPLIANCE

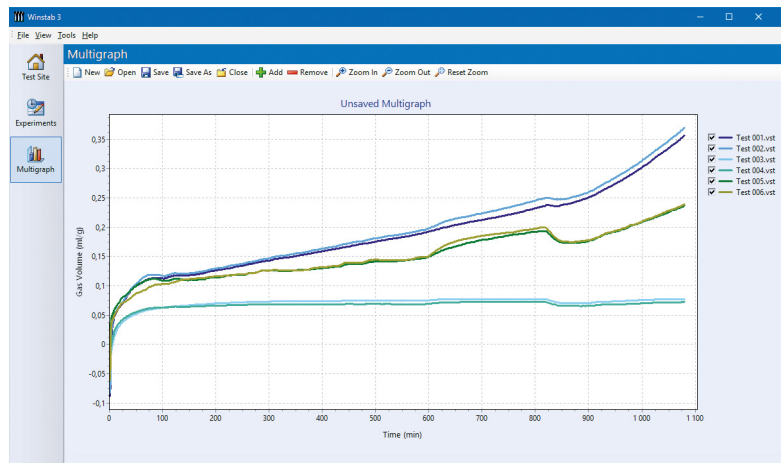
- STANAG 4022/4
- STANAG 4023
- STANAG 4147
- STANAG 4230
- STANAG 4284
- STANAG 4556
- STANAG 4566



Volume of decomposition gases at different temperatures



WINSTAB software – test conditions of test and sample parameters



WINSTAB software – comparison of different tests



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