Precious Metal Testing Set AuroTest - ATS 3000

The precious metal testing set Aurotest - ATS 3000 is a fast, non-destructive and easy to use authenticity analysis system for investment gold coins and also gold bars of common sizes and weights from 1 g up to 100 g fineness. Even the analysis of bars and coins made of silver, platinum or palladium is possible with the ATS 3000, beside a specific fineness testing of hall marked LGD type gold bars above 970/1000 fineness with a precision of ± 1/1000 gold content.

The ATS 3000 utilizes a combined measurement of the electrical conductivity and density in order to evaluate the authenticity of fine gold bars and gold coins. The conductivity testing part is possible even for plastic foil covered or blistered samples. Both methods are based on a volume inspection of the samples and not only on the analysis of a thin surface layer.

There is no need any more to send coins or bars to an assayer or precious metals refiner for authenticity testing. With the ATS 3000 you can check by yourself the fineness and homogeneity of your samples within seconds or find our possible fakes. Commonly used X-Ray fluorescence analysis instruments (X-RFA) for that purpose can not detect hidden precious metal imitates beyond a decorative layer thickness of about 10 to 20 micron.

Gold coins and investment gold bars have been counterfeited over decades already. Banks and precious metal dealers have been affected many times before by the purchases of fake gold, made of tungsten or other heavy metals. Authentic appearing gold investment coins with a too low gold content can be safely distinguished with the ATS 3000 on the 1 % level within seconds from genuine pieces. Furthermore, LGD compliant 10 tola, kilo or 400 oz. bars with a required minimum content of 995/1000 Au can be checked on the actual fineness vs. visible hall marking on 1/1000 level.

For the ambitious precious metal investor the ATS 3000 makes an end on any doubts about possible fake bars and coins in his precious metals portfolio. For a bank, a large scale precious metal dealer, or an investment company this testing set offers the capability to check the genuiness and content of precious metal bars and coins for purchase, storage in custody or sales within seconds. All imitates can be easily and safely detected and excluded from dealing. The pricing of this testing set is still favourable in relation to the incurred financial loss, or possible loss in reputation by a single counterfeited investement gold bar when initially undetected.
The testing set AuroTest ATS 3000 consists of:

- a user friendly digital, light weight, high precision electrical conductivity measuring device, with a measuring range of 0.50 to 65.0 MS/m (± 0.01 MS/m *) and a precision of 0.5 %
- the electrical conductivity testing is possible for samples with at least of 8 mm diameter/lateral size resp. a minimum thickness of 0.3 mm and up to 4 mm for complete volume inspection **), also through thin plastic protection or cover foils (e.g. Kinebars®)
- one compact and portable precision balance with a measuring range of 1 g to 200 g (resolution: ± 0.001 g)
- a set of two stainless steel measuring cups (pyknometers), together with cover lids possessing an overflow hole for the precision density determination by the volume replacement method for precious metal bars and coin up to approx. 50 g (for gold, platinum, palladium, silver) and having at least 1 g weight ***)
- a digital micrometer screw with a thickness measuring range up to 25 mm (± 0.001 mm)
- accessories for the decoupling of the measuring electromagnetic radiation field in the bars and coins from the table surface
- software package on CD-ROM, compatible to MS Excel and similar programs, running under MS Windows (2000/XP/Vista/7/8), Mac OS, Android, or Linux for making printouts of the conductivity and density measuring protocol and calculation of error bounds. The protocols can printed within the MS Excel type application by any OS compatible printer.
- a set of comparison tables for the conductivity and density data of gold, silver, platinum and palladium fine metal and all common coin alloys, as well as for typical fake materials; comparison tables and diagrams for the conductivity and density of all other precious metals, and base metals having a density higher than 6 g/cm³
- an illustrated user manual about the handling of the conductivity measuring device, the balances and the testing and analysis software, including a set of measuring protocols (all data are also contained on the CD-ROM as PDF-files
- a lockable aluminum transportation case

*) Electrical conductivity, SI unit: MS/m     **) not commonly required for 10 tola, kilo or 400 oz. LGD bars
***) special dimensions & weights on further request

Technical data of the ATS 3000 set:

Measuring range conductivity: 0.50 to 65.0 MS/m, precision: 0.5 %
Measuring frequencies conductivity: 0.06 to 0.50 MHz
Measuring range weight: 1 to 200 g (recommended: 1 g to ca. 50 g precious metal weight)
Measuring range density: 1.00 to 22.57 g/cm³, precision: typical 0.5 %
Measurable fine metals:
- Fine gold and investment gold alloys,
- Fine silver and investment silver alloys,
- Fine platinum and fine palladium and their alloys,
- Rhodium, iridium, ruthenium, osmium
- Brass (tombac), bronze, red brass, copper, lead, zinc, tin, nickel, iron/steel, tungsten and tungsten alloys, tantalum, molybdenum, rhenium, titanium, aluminum, and many others including gold layers and thicker gold platings on these materials

AuroTest
Petra & Torsten Holz GbR
Logauweg 4
D-70565 Stuttgart/Germany
Phone: +49-711-715 6455
Mobile: +49-179-208 3223
Telefax: +49-711-715 6906
Web site: www.aurotest.de
Email: sales@aurotest.de

Your local sales representative: