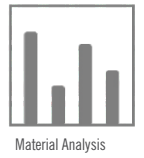


Fischer X-Ray Fluorescence (XRF)
Precious Metal Analysis



GOLDSCOPE® SD 520 / 550 - DPP+

Measure even faster and more precisely
The New Digital Pulse Processor (DPP+)



Ready for the future - FISCHERSCOPE® X-RAY

Fischer X-ray Fluorescence (XRF) measuring devices are continuously optimized to achieve higher precision in shorter measurement times. That is why we have developed our new digital pulse processor DPP+ completely in-house. The DPP+ is one of the central elements of an X-ray fluorescence spectrometer which processes high count rates.

Features

- Modern Silicon Drift Detector (SDD) for high accuracy and a good detection sensitivity.
- Fitted with the new Digital Pulse Processor (DPP+)
- High-resolution colour video camera for precise determination of the measurement spot.
- Bench-top unit with upward opening hood.
- Detector: new SDD detector with 20 mm² (160 eV)
- Micro-focus tungsten tube with beryllium window

Benefits:



Achieve up to 45% reduction in absolute standard deviation with same measuring time



Reduce your measurement time by a factor of 3 with the same absolute standard deviation



Secure your Silicon Drift Detector (SDD) detector with a Grid protection

Application

- Jewellery, precious metals and dental alloys
- Precious Metal Analysis eg. Gold, Silver and Platinum group elements such as Iridium, Ruthenium, Osmium, Rhenium.
- Measuring coating thickness on sterling silver, rhodium finishes or gold alloys
- Determination of complex multi layer-coating system



Gold Refinery



Gold Manufacturing



Tunch and Assaying

GOLDSCOPE® SD 520 / 550 - DPP+

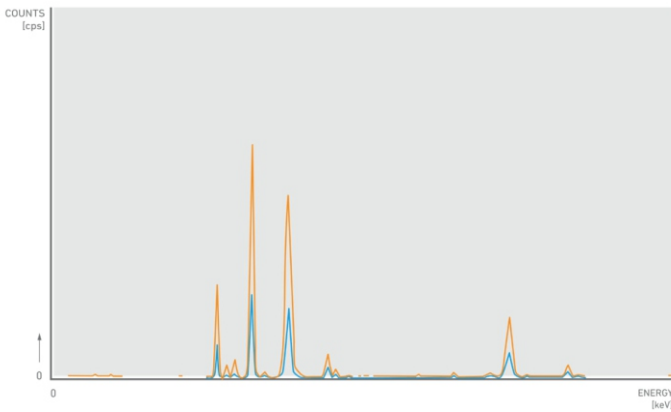
Solution for Hallmarking Centre



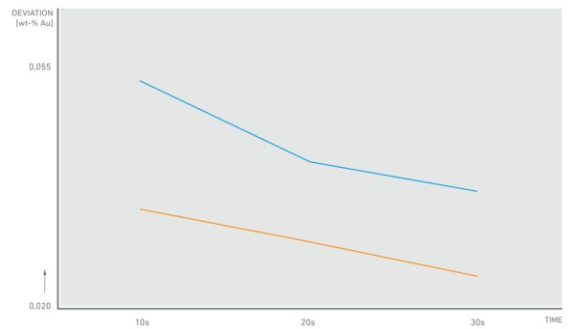
Start benefitting now

The following devices are equipped with the new digital pulse processor DPP+ as a standard option:

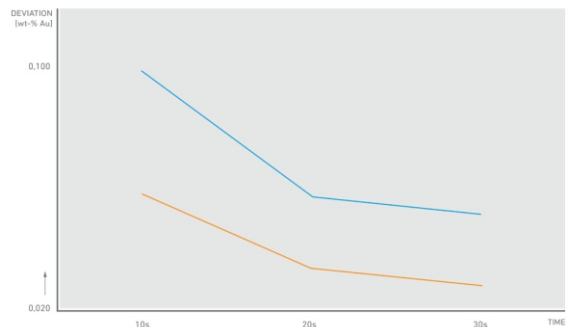
GOLDSCOPE SD® 520
GOLDSCOPE SD® 550



Higher count rates with very good energy resolution:
New SDD Detector with DPP+



950 gold (23 carat): Absolute standard deviation (precision) against measurement time



585 gold (14 carat): Absolute standard deviation (precision) against measurement time

— Old DPP
— New SDD Detector with DPP+



GOLDSCOPE® SD 520 / 550 - DPP+

General Specification

Intended Use	Energy Dispersive X-Ray Fluorescence measuring instrument (EDXRF) for precious metal, alloy analysis and coating thickness measurement in hallmarking, testing, tunch assaying offices, refineries and gold manufacturing.
Design	Bench top unit with upwards opening hood
Measuring Direction	From bottom to top
X-ray tube	Micro-focus tube with beryllium window
Measurement spot	Depending on the measuring distance and on the aperture, the actual measurement is shown in video image.

	GOLDSCOPE®SD 520 - DPP+	GOLDSCOPE®SD 550 - DPP+
High voltage (three steps [kV])	30, 40, 50	10, 30, 50
Filter	Fixed Al 500	6x changeable: Ni 10, no filter, Al 1000, Al 500, Al 100, Mylar® 100
Apertures (Collimators) Ø [mm]	Fixed, Standard 1.0 mm Option 0.6 / 2.0 mm	4x changeable: 0.2, 0.6, 1.0, 2.0 mm

Environmental Conditions

Operating temperature	10 °C – 40 °C
Storage / Transport temperature	0 °C – 50 °C
Relative humidity	≤ 95 %

X-Ray Detector

	Standard (20 mm ²)	Optional (50 mm ²)
X-ray detector	Silicon Drift detector with peltier cooling	Silicon Drift detector with peltier cooling
Resolution (fwhm for Mn-Kα)	≤ 140 eV	≤140 eV
Element range	Aluminum Al (13) – Uranium U (92)	
Measuring distance	0 – 25 mm	
	Distance compensation with patented DCM method for simplified measurements at varying distances. For particular applications or for higher demands on accuracy an additional calibration might be necessary.	

Sample Alignment

Video microscope	High-resolution CCD colour camera for optical monitoring of the measurement location along the primary beam axis, Crosshair with a calibrated scale (ruler) and spot-indicator, Adjustable LED illumination
Zoom factor	Digital 1x, 2x, 3x, 4x

Electrical Data

Power source	AC 115 V or AC 230 V 50 / 60 Hz
Power consumption	max. 120 W, without evaluation PC
Protection class	IP 40

Target Dimensions

External dimensions	403 x 588 x 365 mm (Width x depth x height [mm])
Usable Sample Placement Area	310 x 320 / 12.2 x 12.6 [mm]
Max. sample height [mm/in]	90 [mm]
Weight approx	45 Kg

Evaluation Unit

Computer	Windows based PC
Software Standard	Fischer WinFTM®

Standards

X-Ray standards	DIN ISO 3497 and ASTM B 568
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Order

GOLDSCOPE® SD 520 / 550 DPP+

Part No.

GOLDSCOPE® SD 520 - DPP+	IN1003066
GOLDSCOPE® SD 550 - DPP+	IN1003063

www.helmut-fischer.com