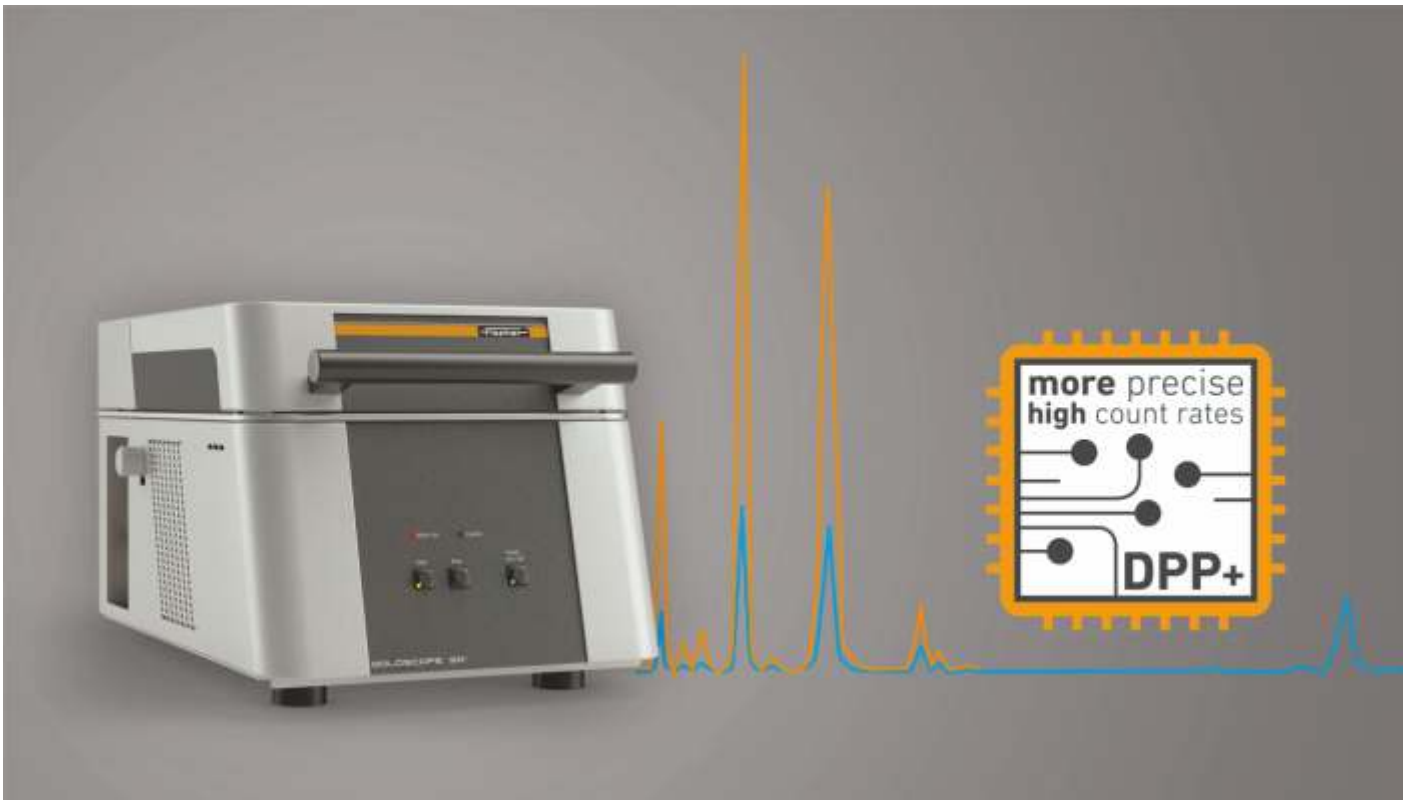
GOLDSCOPE SD® 520 / 530 / 550

Advanced high-end XRF Machine for Gold, Silver and other precious Metal Analysis.
Measure even faster and more precisely with the new Digital Pulse Processor (DPP+).

fischer®



All-in-One Solutions for Precious Metal Analysis

Features

- Modern Silicon Drift Detector (SDD) for high accuracy and good detection sensitivity
- High-resolution color video camera for precise determination of the measurement spot
- Fitted with the new Digital Pulse Processer (DPP+)
- Micro-focus tungsten tube with beryllium window
- Bench-top unit with upward opening hood
- Detector : New SDD detector with 20 mm: ≤ 135 Mn-Kα [eV]

Applications

- Jewelry, precious metals and dental alloys
- Precious metal analysis eg. gold, silver and platinum group elements
- Measuring coating thickness on sterling silver, rhodium finishes or gold alloys
- Determination of complex multi layer-coating systems
- Detection of PGM group elements such as Iridium, ruthenium, osmium, rhenium etc. enabling accurate precious metal analysis results

Benefits :

	Acheive upto 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) with a grid protection.

General Specification

Intended use	Energy dispersive X-ray measuring instrument (EDXRF) to analyze precious metals
Design	GOLDSCOPE SD 520, 530, 550: Bench top unit with upwards opening hood
Measuring direction	Bottom up

Electrical data

Power supply	AC 100 – 240 V ±10 % / 50 – 60 Hz max. 120 VA, without evaluation PC
Protection class	IP40

Environmental conditions

Operating temperature	10 °C – 40 °C 50 °F – 104 °F	Storage/Transport temperature	0 °C – 50 °C 32 °F – 122 °F
Admissible air humidity	≤ 95 %, non-condensing		

Sample Alignment

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

Evaluation unit

Computer	Windows® PC
Software	WinFTM® optimized for GOLDSCOPE SD, including Gold Setup GOLDSCOPE with measuring applications for gold and jewelry

Standards	GOLDSCOPE SD 520	GOLDSCOPE SD 530	GOLDSCOPE SD 550
CE approval	EN 61010, EN 61326		
X-Ray standards	DIN ISO 3497 ASTM B 568 ISO 23345		
Approval	Fully protected instrument with type approval according to current radiation protection legislation		
Sample Stage			
Design	Fixed sample support		
Max. sample weight [kg/lb]	13/29		
Usable sample placement area [mm/in]	310 x 320/ 12.2 x 12.6		
Max. sample height [mm/in]	90/3.5		
Dimensions			
External dimensions, Width x depth x height [mm /in]	403 x 588 x 365/16 x 23.2 x 14.4		
Weight [kg/lb]	approx. 45/99		

GOLDSCOPE SD®

X-Ray Source	GOLDSCOPE SD 520	GOLDSCOPE SD 530	GOLDSCOPE SD 550
X-ray tube	Micro-focus tube, thermally stabilized		
High voltage, three steps	30, 40, 50 kV	10, 30, 50 kV	10, 30, 50 kV
Primary filter [µm/mils]	fixed Al 500/19.7	6x changeable: Ni 10/0.4 no filter Al 1000/39.4 Al 500/19.7 Al 100/3.9 Mylar® 100/3.9	
Aperture (Collimator) Ø [mm/mils]	Fixed, Standard 1.0/39 Option 0.6/24; 1.0/39 or 2.0/79	2x changeable: 0.6/24 2.0/79	4x changeable: 0.2/8; 0.6/24; 1.0/39; 2.0/79
Smallest measurement spot* Ø [mm/mils]	approx. 0.7/28*	approx. 07 /28*	approx. 0.3 /12*
	* depends on the measuring distance and on the aperture, the actual measurement spot size is shown in the video image		
X-Ray Detection			
Detector type	Silicon Drift Detector (SDD), peltier-cooled		
Resolution fwhm for Mn-K_a [eV]	Version with SDD 20 mm²: ≤ 135	Version with SDD 20 mm²: ≤ 135	Version with SDD 20 mm²: ≤ 135
Element range	Al (13) to U (92)		
Measuring distance [mm/in]	0 – 25/0 – 1, 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.		
Repeatability for gold, measurement time 60 sec	≤ 0,5 ‰ with aperture 1.0 mm	≤ 0,5 ‰ with aperture 2.0 mm	≤ 0,5 ‰ with aperture 1.0 mm
Order			
Order number	Please inquire		
	Incl. Gold Setup GOLDSCOPE with factory-calibrated measuring applications for gold and jewelry		

Special GOLDSCOPE SD product modification and technical consultation on request

Fischer Measurement Technologis (India) Pvt. Ltd.
City Centre, Office No. 3, 4 & 5, First Floor,
Behind Persistent, Hinjewadi, Phase-1, Pune - 411057
Tel : +91 20 67909500 | Mob : +91 9970397225
Email : sales@fischerindia.com
Website : www.helmut-fischer.com