

# SPECIM



A Konica Minolta Company

# SISUROCK

STATE-OF-THE-ART WORKSTATION FOR DRILL CORE LOGGING



**SisuROCK is the most versatile imaging multicamera workstation for rapid and accurate core logging.**

## RAPID

- Scans full core area in seconds.
- Scans core tray and loads next box in only two minutes.
- Scans hundreds of boxes per day, no sample preparation.



## REPEATABLE

- 100% repeatable method, providing complete results.
- Get all data in digital format on first scan, no revisiting archives.
- Data can be used to produce consistent, objective mineral maps.

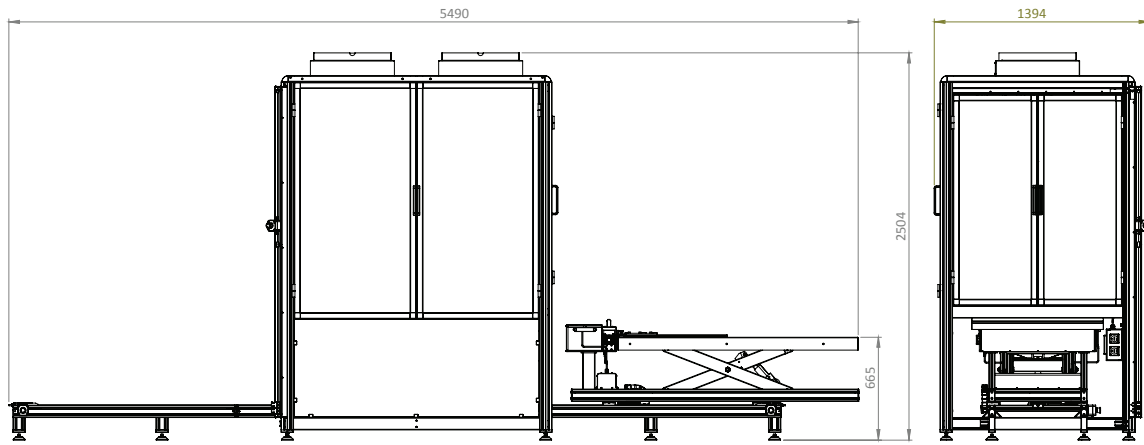


## VERSATILE

- Multiple cameras from visual to thermal range for versatile imaging capabilities.
- Excellent spatial and spectral resolution.
- Double-sided illumination optimizes image quality.
- Unmatched in capturing difficult deposits, samples, and textures.

## RELIABLE

- Well-established and reliable platform requiring minimal maintenance.
- Scientifically proofed method.



	Specim FX10e	SWIR	Specim FX50	Specim FX120	RGB	3D
<b>Spectral Range</b>	400 - 1000 nm (VNIR)	970 - 2500 nm (SWIR)	2.7 - 5.3 $\mu\text{m}$ (MWIR)	7.7 - 12.3 $\mu\text{m}$ (LWIR)	Not applicable	Not applicable
<b>Spectral Bands</b>	224 (with default binning of 2)	270-288 (number of spectral bands may vary due to the camera characteristics)	154 (with default binning)	160 (with default binning)	3 (RGB)	1
<b>Spectral Resolution FWHM</b>	5.5 nm (mean)	12 nm (mean)	35 nm (mean)	100 nm (mean)	Not applicable	Not applicable
<b>Number of pixels / image line across image</b>	1024	384	640	616	8192	2560
<b>Spatial sampling on target</b>	0.016 - 0.61 mm	0.16 - 1.6 mm	0.23 - 1.0 mm (restricted downwards by illumination over target)	0.40 - 1.1 mm (restricted downwards by illumination over target)	0.008 - 0.08 mm	0.25 mm
<b>Other</b>						Vertical resolution: 0.01 mm Class 2 eye safe laser
<b>Scan rate</b>	More than 30 boxes / hour					
<b>Max sample size</b>	1500 x 650 x 200 mm (L x W x H), 50 kg					
<b>System dimensions</b>	5490 x 1394 x 2504 mm (L x W x H)					
<b>Overall system weight</b>	~ 500 kg depending on camera configuration					
<b>Cooling requirements</b>	No external cooling required. Air conditioned room recommended.					
<b>Operating conditions</b>	Laboratory type environment. Small amount of dust accepted.					
<b>Operating temperature</b>	0 to 40 °C, non-condensing					
<b>Operating voltage</b>	110 to 220 V and 50/60 Hz clean power supply					
<b>Output data format</b>	BIL file format, ENVI compatible					
<b>Intrument calibration</b>	Spectrally calibrated data. Normalization				White balance	

# MINERAL IDENTIFICATION CHART

	Silicate Structure	Mineral Group	Example	VNIR	SWIR	MWIR	LWIR
Silicates	Inosilicates	Amphibole	Actinolite	Possible	Good	None	Good
		Pyroxene	Diopside	Moderate	Moderate	Uncertain	Good
	Cyclosilicates	Tourmaline	Elbaite	None	Good	Good	Moderate
	Nesosilicates	Garnet	Grossular	Possible	Possible	None	Good
		Olivine	Forsterite	Possible	Possible	Uncertain	Good
	Sorosilicates	Epidote	Epidote	None	Good	Uncertain	Moderate
	Phyllosilicates	Mica	Muscovite	None	Clear	Uncertain	Moderate
			Chlorite	Clinochlore	None	Good	Uncertain
		Clay Minerals	Illite	None	Good	Uncertain	Moderate
			Kaolinite	None	Good	Uncertain	Moderate
	Tectosilicates	Feldspar	Orthoclase	None	None	Possible	Good
			Albite	None	None	Possible	Good
		Silica	Quartz	None	Possible	Moderate	Clear
Non-Silicates	Carbonates	Calcite	Calcite	None	Moderate	Clear	Good
		Dolomite	Dolomite	None	Moderate	Clear	Good
	Hydroxides		Gibbsite	None	Good	Uncertain	Moderate
	Sulphates	Alunite	Alunite	Possible	Good	Moderate	Moderate
			Gypsum	None	Good	Moderate	Good
	Borates		Borax	None	Moderate	Uncertain	Uncertain
	Halides	Chlorides	Halite	Uncertain	Uncertain	Uncertain	Uncertain
	Phosphates	Apatite	Apatite	Possible	Possible	Uncertain	Good
	Hydrocarbons		Bitumen	Possible	Moderate	Good	None
	Oxides	Hematite	Hematite	Good	None	Possible	Possible
		Spinel	Chromite	None	None	Uncertain	None
Sulphides		Pyrite	Possible	None	Possible	Possible	

**Clear** – Most suitable region for mineral identification  
**Good** – Good response but mixtures can influence mineral characterization  
**Moderate** – Moderate but better mineral responses in other regions  
**Possible** – Selective response possible but mineral identification difficult  
**None** – Non-Diagnostic responses or no responsiveness of mineral in region  
**Uncertain** – Available spectral data insufficient to assess identification potential

Source: TerraCore

## About Specim

Founded in 1995, Specim is the pioneer and leading global supplier of hyperspectral imaging solutions. We offer the broadest portfolio of hyperspectral cameras from VNIR to LWIR, imaging spectrographs, software systems, and accessories to serve industry, research, and government organizations worldwide. Specim has been a part of the Konica Minolta Group since 2020.

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