



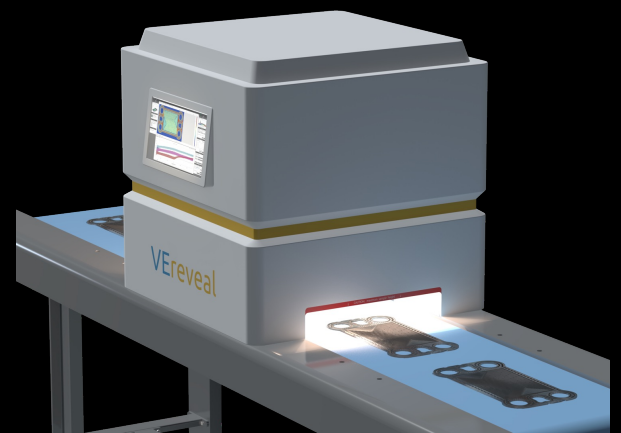
VEREVEAL

Hyperspectral Vision Inline Module

FAST, COMPREHENSIVE AND NON-DESTRUCTIVE

VEreveal features the VEpioneer® core for continuous inline inspection by Hyperspectral Vision. It efficiently captures surface properties, detects thin films, and identifies deviations from production specifications.

- **FAST**
Near real-time for data acquisition and evaluation
- **COMPREHENSIVE**
100% product information
- **NON-DESTRUCTIVE**
Unique combination of optical spectroscopy and imaging



INSIGHTS FROM INSPECTION

VEreveal boosts your product and sample knowledge by orders of magnitude with spatially resolved recognition of:

- **LAYER THICKNESS**
1 nm - 500 µm, depending on layer material
- **QUALITY CRITERIA**
Defects, contaminations, processing status, roughness of surfaces and interfaces
- **SAMPLE PROPERTIES**
Chemical, electrical, optical

CHECK OUT
MORE



Dr. Wulf Grähler
explore@dive.eu
+49 3528 455-7573

DIVE imaging systems GmbH
Forststraße 1, 01454 Radeberg
<https://dive.eu>



VEREVEAL

Hyperspectral Vision Inline Module

INSPECTED MATERIALS

VEReveal is designed for simple and fast as well as continuous area measurement of surfaces and thin films on various substrates:

- **SUBSTRATES**

Semiconductors (Si, SiC, ...), metals, polymers, ceramics, glass, ...

- **LAYERS**

Oxides, nitrides, carbides, polymers, ...

SPECIFICATIONS

Imaging technique	Pushbroom scanning mode
Acquisition mode	Reflectance fluorescence optional
Acquisition time per frame	< 4 ms shorter acquisition times optional
Wavelength range	VNIR: 400-1000 nm SWIR: 900 – 1700 nm further wavelength ranges (1 – 2.5 µm) optional
Spectral bands	VNIR: 448 SWIR: 224
Spectral resolution	VNIR: 1.34 nm SWIR: 3.5 nm
Field of view (FOV)	customisable: typical 1 µm minimum (µ-optics), maximum according to requirements
Spatial resolution	application and sensor based, typically < 1 mm
Lighting	VELuminise unit: tuneable halogen broadband source for homogeneous light field, broadband LED with spectral range 400 – 900 nm or UV-LED excitation optional
Sample size	defined by customer requirements
Sample stage	customized, i. e. conveyor belt or specific sample holder
Reference	reference integration into process system, if feasible selection of reference materials according to custom process (usually PTFE, protected aluminium)
Data evaluation time	near real time
Data connection	customisable, defined by customer requirements
Operating conditions	+5 ... +45 °C (non-condensing)
System certification	CE, RoHS, UKCA
Power requirements	rated voltage: 230 VAC (115 V or heavy current connection optional) rated frequency: 50 - 60 Hz
Connectivity	RJ45 (ethernet)
Compute unit	x86 based, with DIVE VEsolve® Pro software

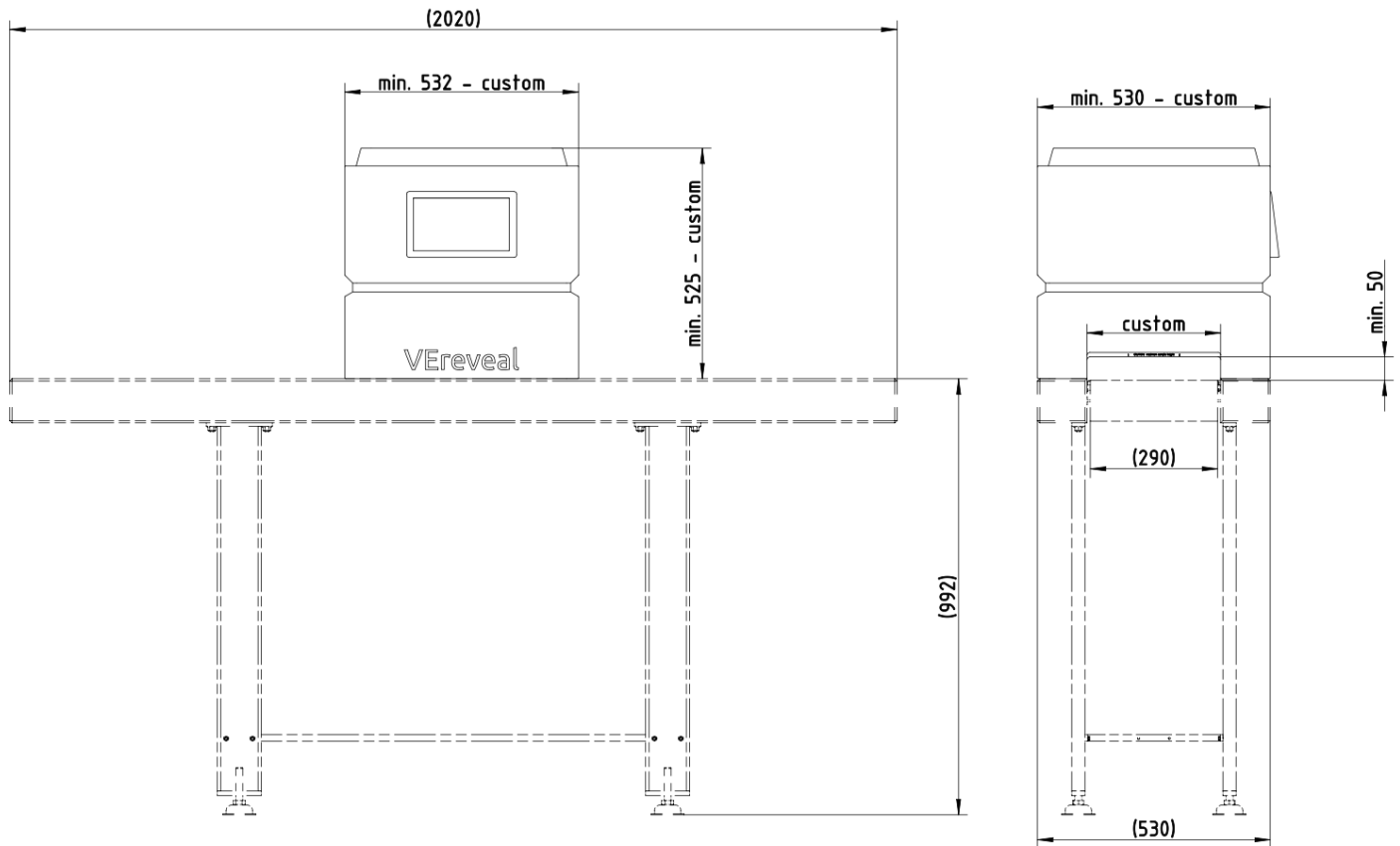
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DIMENSIONS



Dimensions are subject to sample sizes and the manufacturing process of the customer. The above dimensions provide an illustration of a specific use case with sample sizes of 120 mm x 220 mm.

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