The OBLF MVS 1000

Optics

- spectrometer in Paschen-Runge mounting
- Rowland circle diameter 500 mm
- optics and read-out electronics temperature stabilised to 35°C ± 0.1°C for excellent long-term stability
- automatic computer controlled profiling
- optimised detector lines for the used wavelength region
- high UV sensitivity without sensor coating
- shock resistance
- evacuated light metal chamber
- maintenance free 2-stage rotary vane pump
- vacuum pump integrated in cabinet
- oil diffusion protection

Spark Generator

- Gated Digital Source (GDS) with integrated multi-spark system
- maintenance free
- spark frequency up to 1 kHz
- unipolar medium voltage discharge
- separate parameter for pre-sparking and integration selectable
- variable excitation parameters & discharge characteristics selectable by software
- Ignition voltage 20kV

Spark Stand

- Argon purged spark stand, optimised for low Ar consumption
- patented self-cleaning
- open sample stand for easy handling
- low-wear top plate with 12 mm opening
- optionally adapters for small parts and wires are available
- low-wear tungsten electrode
- pneumatic sample clamp for rapid sample handling
- automatic electrode cleaning as option
- About 3 l Argon consumption per measurement
- easy maintenance

Electronics

- 16 Bit AD conversion for each pixel
- DSP processor controlled sensor read-out
- USB interface to spectrometer PC

Dimensions & Weight

- width 60 cm
- height 110 cm
- depth 108 cm
- weight about 300 kg

Power Supply

- 230V; 50/60 Hz; 1,5 kVA
- 200 W in stand-by mode

Environmental Conditions

- operation temperature 10 – 40 ºC

Computer-Hardware

- standard computer system
- MS Windows® 10 operating system with custom specific regional and language settings

Software

- OBLFwin spectrometer program
- easy routine operation
- freely configurable sample IDs
- automatic repeatability control for measurements
- automatic averaging
- warning signal if calibration is exceeded
- bad sample detection as option
- as many analysis programs to customer specifications as required
- individual analysis parameters for each program
- multivariate calibration model (incl. line overlaps and matrix effects)
- easy and simultaneous recalibration of a complete matrix
- automatic program selection
- type calibration and type measurement
- spectrometer control sample measurements
- average and standard deviation from chosen measurements
- automatic reminder of regular recalibration
- grade control by comparison with grade database settings
- automatic display of of selected grade or material number
- freely editable grade database
- printout of certificates
- analysis database
- several statistical functions as display of control charts
- automatic analysis data export
- system check preceding each analyse
- system diagnostics module
- software supported maintenance tasks, for example entrance window cleaning
- Module for the display of emission spectra and line definition