

Q4 TASMAN

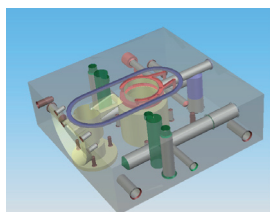
- Advanced CCD Based Optical Emission Spectrometer

The Analytical Performance that Exceeds Your Requirements

Starting with Innovation

Implementing intelligent innovation, Bruker Elemental has designed the new Q4 TASMAN spectrometer to achieve unrivaled performance:

- New co-axial argon flow combines analytically optimized flows with reduced consumption. More accuracy can be achieved analyzing small samples.
- Newly developed CCD-based spectrometer features ClearSpectrum technology.
- Analytical Solution Packages (ASP) provide turn-key solutions for your analytical requirements.
- Less down-time with the automatic control and diagnosis functions leads to higher availability.



Co-axial argon flow: reduced consumption and minimized maintenance.

Your Analytic Requirement is our Inspiration

At Bruker Elemental, we design and develop advanced OES systems to meet or exceed your analytical needs. The new Q4 TASMAN provides the answers you need fast, using the very latest, state-of-the-art technologies.

Our engineers have designed innovative solutions which make the Q4 TASMAN OES system fully suitable not only for your dedicated applications, but also for many general purpose applications. The result is a completely new CCD-based instrument, which lets you achieve your goals faster, more reliably, and more cost-effectively than ever before with this class of instrument.

QMatrix user interface

Creation By		Creation Date		Sample Identification		Modify By		QualityChecked		
C	Si	Mn	P	S	Cr	Mo	Ni	Al	Co	
%	%	%	%	%	%	%	%	%	%	
1	0.176	0.286	0.262	0.082	0.050	1.071	0.881	5.310	0.038	0.032
2	0.175	0.290	0.259	0.082	0.050	1.065	0.887	5.330	0.037	0.035
3	0.176	0.288	0.260	0.083	0.050	1.075	0.840	5.321	0.040	0.032
4	0.173	0.285	0.261	0.083	0.052	1.060	0.843	5.340	0.041	0.034
5	0.175	0.286	0.268	0.083	0.052	1.065	0.845	5.350	0.042	0.035
σ	0.1750	0.2871	0.2620	0.0824	0.0506	1.0672	0.8392	5.3302	0.0396	0.0332
σ	0.0010	0.0019	0.0035	0.0006	0.0010	0.0058	0.0055	0.0157	0.0021	0.0013
σ	0.566	0.664	1.349	1.887	1.896	0.548	0.655	0.294	5.236	3.927
Cu	Nb	Ti	V	Sn	B	N	Fe			
%	%	%	%	%	%	%	%			
1	0.062	0.019	0.320	0.053	0.028	0.0082	0.0044	91.42		
2	0.059	0.016	0.328	0.054	0.029	0.0081	0.0040	91.40		
3	0.063	0.018	0.321	0.051	0.027	0.0080	0.0045	91.40		
4	0.061	0.019	0.325	0.051	0.029	0.0082	0.0043	91.39		
5	0.063	0.017	0.327	0.052	0.029	0.0082	0.0043	91.36		
σ	0.0616	0.0178	0.3242	0.0523	0.0284	0.0081	0.0043	91.4161		
σ	0.0017	0.0013	0.0036	0.0012	0.0009	0.0001	0.0002	0.0260		
σ	2.716	7.325	1.099	2.321	3.061	2.848	4.323	0.028		

1 Analysis results

2 Display options: Average, standard deviations, specification limits,

3 OneClick operation, instrument status

● Simply Analyze

Enjoy Shorter Measurement Cycles

Q4 TASMAL features shorter measurement cycles compared to any conventional system. The newly developed readout scans all CCDs up to 30 times faster than previously. The results are higher dynamic ranges with shorter measurement times. Faster time-to-result improves your efficiency and increases your profitability.

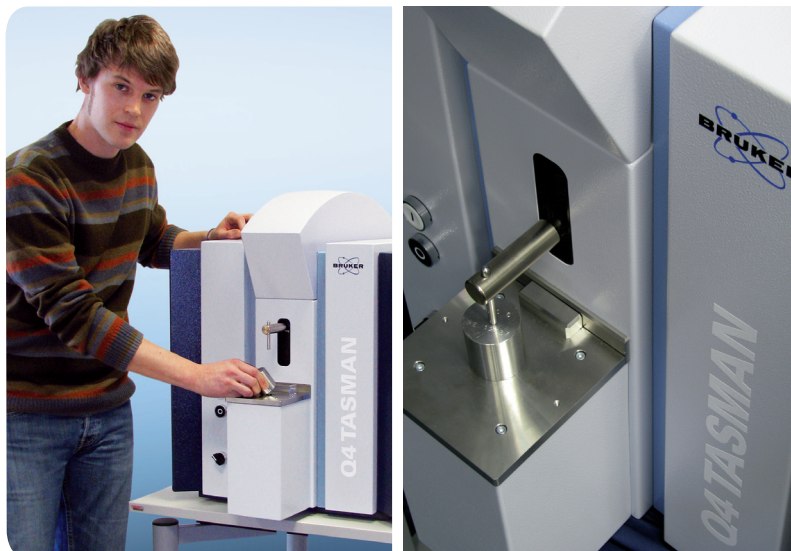
Competitive Athlete at Heart

The optical system is the heart of the spectrometer: the well-proven Paschen-Runge mounting is equipped with ClearSpectrum technology: the combination of high-resolution CCDs and the latest firmware provides excellent performance from a very compact design.

Spectra deconvolution and evaluation are covered by a duo of firmware and software. Just place the sample in position and press the start button! Performance is at the tip of your fingers. After just a short while, accurate analysis results appear with color indicators.

Everything is Goal-oriented

Co-axial argon flow puts the gas where it is needed: at the burn spot eliminating the need for a standby flow. In addition the analysis of small samples and wires is simpler than ever before.



Adjustable sample clamp provides simple sample positioning and sample exchange

Three Models for your Apps

The right solution for your application: TASMAL 200 is ideally suited for all non-ferrous applications, where UV elements are not required; TASMAL 170 for e.g. ferrous applications with important elements in the UV spectrum (C, P, S, As, Sn, B, etc.) and finally the powerful TASMAL 130 capable of analyzing even ultra-UV elements like e.g. nitrogen and others.

Analytical Solution Packages

Q4 TASMAL offers dedicated solutions for your analytical tasks. The Analytical Solution Packages (ASP) are available per matrix: elements, calibrations, alloys and more.

In no time at all, you receive reliable, complete analytical results.

Superior Technology

Q4 TASMAL unites an outstanding solution for metal analysis: optimal analytical performance, user-friendly and cost-effective operation.

Q4 TASMAL's superior analytical performance and economical run is a great asset for your metal business.

Q4 TASMAL Models

Model	Wavelength range
Q4 TASMAL 200	200 - 620 nm
Q4 TASMAL 170	170 - 620 nm
Q4 TASMAL 130	130 - 620 nm

Technical Specifications

Optical System

- CCD sensors with high resolution
- Multi-detector Optics
- Paschen-Runge Mounting
- ClearSpectrum Technology
- Highest spectral sensitivity

Source Generator

- Maintenance-free, two phase PWM Generator
- Frequency 50 to 1000 Hz
- Spark & arc-like discharges from 10 μ s to 2 ms

Software

- Intuitive Windows* based software for simple routine operation
- Various user levels for secure and task-specific operations
- Functions for qualitative and quantitative analysis
- Complete Software Suite including analysis database and interfaces to Microsoft Office* software

Analytical Solution Packages (ASP)

- Available for various matrices
- All relevant alloying elements
- Calibrations for all alloy groups
- Quality libraries with version control

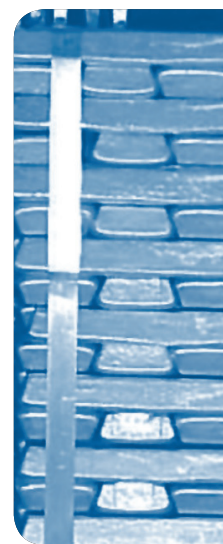
Electrical Data

- 100 to 240 V (50/60 Hz)
- 600 W during measurement, 50 W standby
- 16 A (240 V) slow blow fuse or 25 A (100 V) slow blow fuse

Weights & Dimensions

- Width 550 mm / 22 inches
- Height 700 mm / 28 inches
- Depth 820 mm / 32 inches
- Weight ~75 kg / ~165 lb.

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