

Atomic Absorption Spectrophotometer DW-180B

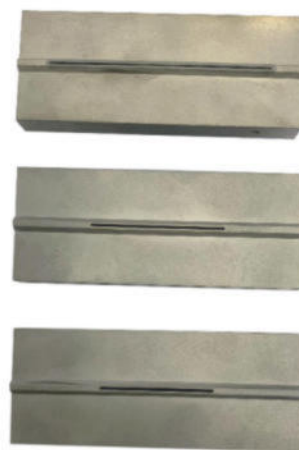
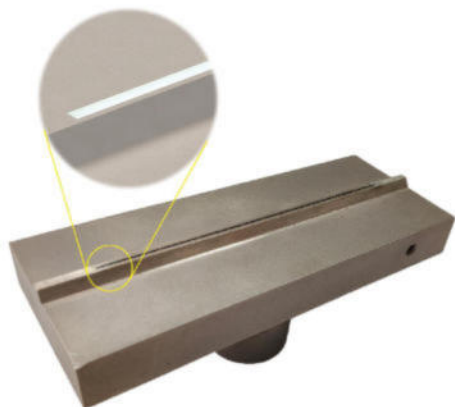
Features

★ The core optical platform of the instrument adopts an integral casting structure, with a thickness of 20mm cast aluminum molding and a suspended platform design. The deformation of the casting under high/low temperature thermal effects is within 0.2mm, so the stability is comprehensively improved.



★ Aiming at the requirements of multi-element detection tasks, the uniquely designed 8-light position lamp holder is compatible with the light position element memory function of conventional lights, and easily supports 1~4 lights to be preheated at the same time, so that the light source of the instrument is on standby at any time. Ease of use further enhancement

★ The flame-fog chamber system adapts polyphenylene sulfide, the internal material of the aero-engine, and the overall molding design, which has good material properties such as good flame retardancy, corrosion resistance, high temperature resistance, and high strength, ensuring long-term service life.



★ The industrial TA2 grade high-purity titanium integral casting flame combustion head has excellent corrosion resistance, and the seam surface finish is quasi-mirror by using the slow wire-moving process. At the same time, it supports the expansion of various wide-slit combustion heads, and the analysis of high-salt samples is more convenient

★ A new generation of flame control system: continuously adjustable and reliable gas circuit control, real-time status breathing light and other designs, equipped with active/passive dual safety interlocking and protection, automatic ignition, and other functions, so that the instrument can work safely and stably in complex environments.



★ The new oxygen-enriched flame technology can be upgraded, and the flame temperature rises to above 2700°C, realizing a high-temperature flame without dangerous chemical laughing gas, and ensuring the determination of high-temperature elements Ca, Al, Ba, Mo, Ti, V, etc

Parameters

★ Light system

1. Adopt 8 lamp position design, with automatic rotation/switching/collimation and other functions
2. Support 1 to 4 lamps to light up at the same time, and multiple lamps can be preheated at the same time to improve the analysis efficiency;
3. The memory function of each lamp position can be edited freely, without the need to use custom coded lamps

★ Optical system

1. The optical table with integral casting structure is integrally suspended in the main structure of the instrument.
2. Classic Czemy-Turner monochromator, grating line density 1800 lines/mm plane diffraction grating
3. Spectral bandwidth: 0.1nm, 0.2nm, 0.4nm, 0.8nm, 1.6nm, 2.4nm (automatic switching)
4. Automatic peak search setting and scanning, automatic setting of slit width and energy, automatic wavelength optimization and no reset when switching wavelength.
5. High sensitivity, wide spectral range photomultiplier detector.

★ Flame system

1. 10cm all-titanium burner for air-acetylene flame.
2. Corrosion-resistant material PPS directly forms the atomization chamber, supporting conventional, adjustable, alkali-resistant/organic-resistant and other atomizers for selection
3. The flame height is continuously adjustable and has a locking function, which supports 360° free rotation of the combustion seam angle to adjust the sensitivity
4. Automatic ignition/flame-off control, high-precision and high-reliability gas flow regulation system
5. Standard reading pedal function, easy to read test data

★ Safety protection

1. The instrument has complete security protection and dual alarm systems of software and hardware to prevent problems.
2. Flame system: Real-time monitoring of flame status, air pressure, ignition failure, gas leakage, abnormal flameout, and other problems. Automatically cut off the gas source and alarm to ensure safety in use.
3. Equipped with independent active safety protection device: flame emergency flameout protection switch.

★ Other Functions

1. Deuterium lamp background correction, 1.0Abs background correction ability ≥ 90 times
2. The professional workstation, automatic optimization of instrument status, one-click completion, support for multi-task analysis and automatic switching function
3. The number of measurement repetitions is 1~99 times, and the average value, standard deviation, relative standard deviation, etc. are automatically calculated
4. Fully automatic fitting of calibration, reset slope, calculation of concentration and sample content, etc., with the function of standard addition method
5. Customized information supports custom addition, test data and analysis report printing, and supports output in Word, Excel and other formats

★ Size and Weight

1080mm×480mm×560mm (L×W×H) , 70kg

Extended Functions

Optional auto-sampler, adopting 71-position sub-master plate patented technology, can quickly remove/install standard solution cup and sample cup respectively. The single cup volume $\geq 20\text{mL}$, self-calibrating sampling position, automatic large flow multi-stage Simple cleaning and other functions, high ease of use and flame analysis.



Oxygen-enriched-air-acetylene high-temperature flame is selected, and there is no dangerous gas- N_2O , which ensures that the detection limit of high-temperature elements such as aluminum, barium, chromium, molybdenum, and vanadium is effectively improved, and at the same time it brings a jump in analytical sensitivity.



Various specifications of wide-slit combustion heads, adjustable nebulizers, alkali-resistant/organic-resistant nebulizers, etc. are selected, and the analysis of various samples such as high-salt samples, organic samples. The alkaline samples are more reliable and effectively reduces crystallization, clogging, corrosion, and pollution.



Optional hydride generator for hydrogenation analysis to achieve effective expansion of element types, analytical performance, and detection limits such as arsenic, mercury, and selenium.

Optional audit trail software, with electronic signature function, supports user multi-level authority management, protects data security, realizes traceability of analysis process, and fully complies with GMP-related quality management and audit trail requirements.