BLAUBRAND®

Volumetric instruments

Technical perfection for the most precise measurement results

Long-lasting quality, made in Germany

A step ahead in skill and service



BLAUBRAND® Volumetric instruments

Precision analysis requires measurement instruments with high precision. BLAUBRAND® volumetric instruments offer the best in technical perfection.

- Adjustments carried out using computer-controlled production facilities
- Individually adjusted volumetric instruments, highest precision even for partial volumes
- AQL ≤ 0.4, i.e. the error limits are met with a reliability of at least 99.6 %
- Long service life through the use of robust blanks and high quality printing colors
- No permanent volume changes after heating, up to 250 °C
- Delivery incl. lot certificate, optional with individual certificate or DAkkS calibration certificate available

Reliability for your analyses

BLAUBRAND® volumetric instruments fulfill increasing quality demands for transmitting liquids (volumetric and graduated pipettes), producing standardized samples or dilution series (volumetric flasks, graduated and mixing cylinders) or titrating/analyzing samples (burettes).

Adjustment and marking

Every glass volumetric instrument is individually calibrated. For measuring instruments with scales, such as graduated pipettes, burettes and graduated cylinders, flexible screen stencils are used. These stencils can be stretched to match the calibration marks accurately, so that the measuring precision is maintained for all intermediate volumes.
Computer-controlled systems guarantee the best possible precision for fully automated production processes.

Error limits · quality management

BRAND® manufactures glass volumetric instruments in accordance with current DIN EN ISO standards. Specified error limits are observed with at least 99.6% reliability. BRAND confirms this by including batch, individual, or DAkkS certificates, which also show that our products frequently perform far better than specified error limits.



Long service life

Before calibration, thermal stress must be removed from the blank glassware. After calibration, specially developed quality printing inks are fired into the materials at approx. 500° C.
This makes BLAUBRAND® volumetric instruments especially robust, so that they provide a long service life. In addition, this process ensures that BLAUBRAND® volumetric instruments can be heated up to 250° C in a drying cabinet or sterilizer without this causing a permanent change in volume.

Reference temperature

The reference temperature 20°C applies to our volumetric instruments which are produced according to DIN EN ISO standards. If a volumetric instrument calibrated at 20° C is used at 27° C, the volume expansion of the material will lead to an additional deviation in the measurement, which at 0.007% (borosilicate glass 3.3) or 0.02 % (soda-lime glass) are much smaller than the error limit for the volumetric instrument. In practical application, therefore, the reference temperature is only of minor importance. However, if an adjustment or calibration is carried out at a different temperature, the measured values must be corrected accordingly (see DIN EN ISO 4787).



Test equipment monitoring

BLAUBRAND® volumetric instruments are defined as measuring equipment (e.g. EP, USP). Therefore laboratories working in accordance with GLP guidelines, accredited under DIN EN ISO/IEC 17 025, or certified under DIN EN ISO 9001 must complete measuring equipment monitoring.

The testing of volumetric instruments is done gravimetrically according to DIN EN ISO 4787. So that calibration can be done rapidly and easily, while minimizing sources of error, BRAND provides detailed testing instructions (SOP) for every type of volumetric instrument, free of charge.

Further information, such as for monitoring of test equipment, can be found at: www.brand.de.

Class A/AS volumetric instruments with certificate BLAUBRAND® and BLAUBRAND® ETERNA



One batch certificate per packing unit!

All reusable BLAUBRAND® volumetric instruments are supplied with one batch certificate per packing unit of the manufacturer. On request, they are also available with an individual certificate, USP individual certificate or DAkkS calibration certificate.

All individual and batch certificates are archived for at least 10 years, and are available for download at: www.brand.de.

DE-M

All BLAUBRAND® volumetric instruments kept and used for measurements in legally regulated applications are marked DE-M. The manufacturer BRAND uses this mark to certify the conformity of the instruments with the German Measurement and Calibration Regulation (replaces the previous Calibration Regulation).

BRAND lists all the test equipment used in each lot and individual certificate.

Batch certificate

The mean value and standard deviation for the batch and date of issuance are documented on the certificate (batch number: production year/batch).

Individual certificate

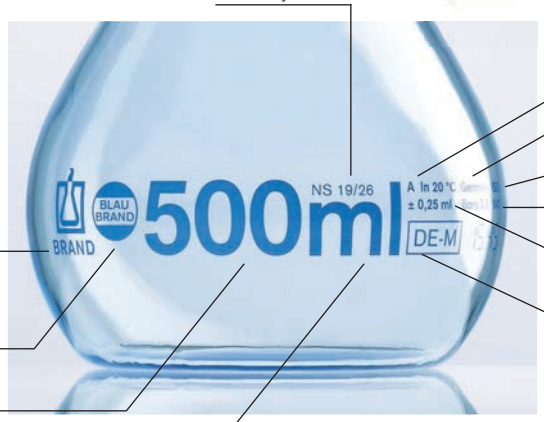
The measured volume, measurement uncertainty, and date of issuance are documented on the certificate (unique serial number: production year/batch/device serial number).





Identification of BLAUBRAND® volumetric instruments

Example: BLAUBRAND® volumetric flask, class A



Ground joint size

Class 'A'

Calibration (In)

Reference temperature (20 °C)

Country of origin

Designation of the standard

Glass type

Error limit

DE-M mark with batch number

Manufacturer

BRAND trademark for volumetric instruments class A and AS

Nominal volume

Volume unit

High quality printing colors

Class A/AS







Blue enamel

The blue enamel offers an excellent color contrast. It represents the optimum combination of resistance and readability. Blue enamel is used for BLAUBRAND® volumetric instruments.

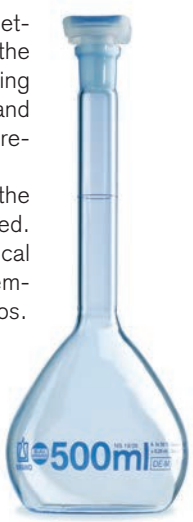
Amber diffusion stain

BLAUBRAND® ETERNA instruments are printed with an amber diffusion stain. It diffuses into the glass surface and can only be removed by abrasion. It is used for volumetric instruments which are subjected to particularly aggressive cleaning methods.

Improve safety in the laboratory!

BLAUBRAND® volumetric flasks with synthetic coating

The PUR coating envelops the volumetric flasks like a protection skin. In the event of breakage, the safety coating helps contain the glass fragments, and spillage of the medium can often be prevented.
Compared to uncoated glass flasks the electrostatic charge is not increased. The light blue coating facilitates optical distinction. The maximum operating temperature at dry heat is 135 °C (expos. time < 30 min).
Frequent autoclaving at 121 °C reduces splintering protection.
Cleaning up to max. 95 °C.





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