

BALANCE DE SUBSTITUTION DE MACRO-ANALYSE

FICHE N° 441

PRÉSERVER
SAUVEGARDER
VALORISER

Période de fabrication : 1950-1974

Fabricant : METTLER ; METTLER ; METTLER

Domaines : Chimie, Physique

Sous-domaines : Chimie analytique

Organisme : Fédération des Sciences Chimiques de Marseille

Ville : Marseille

Modèle : B5

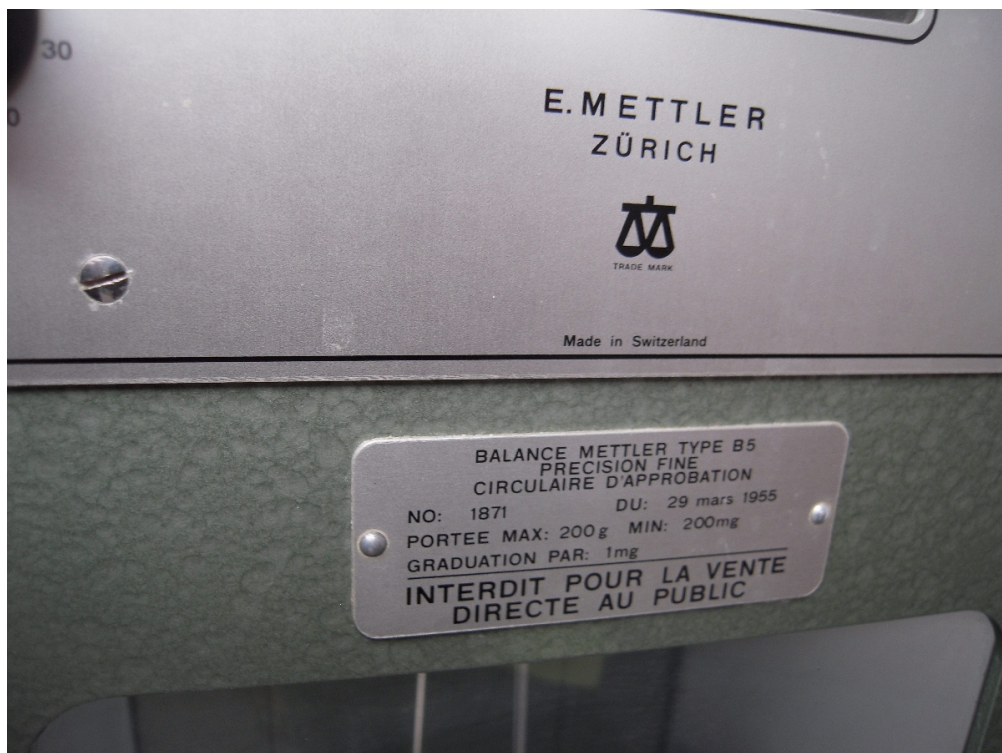
Matériaux :

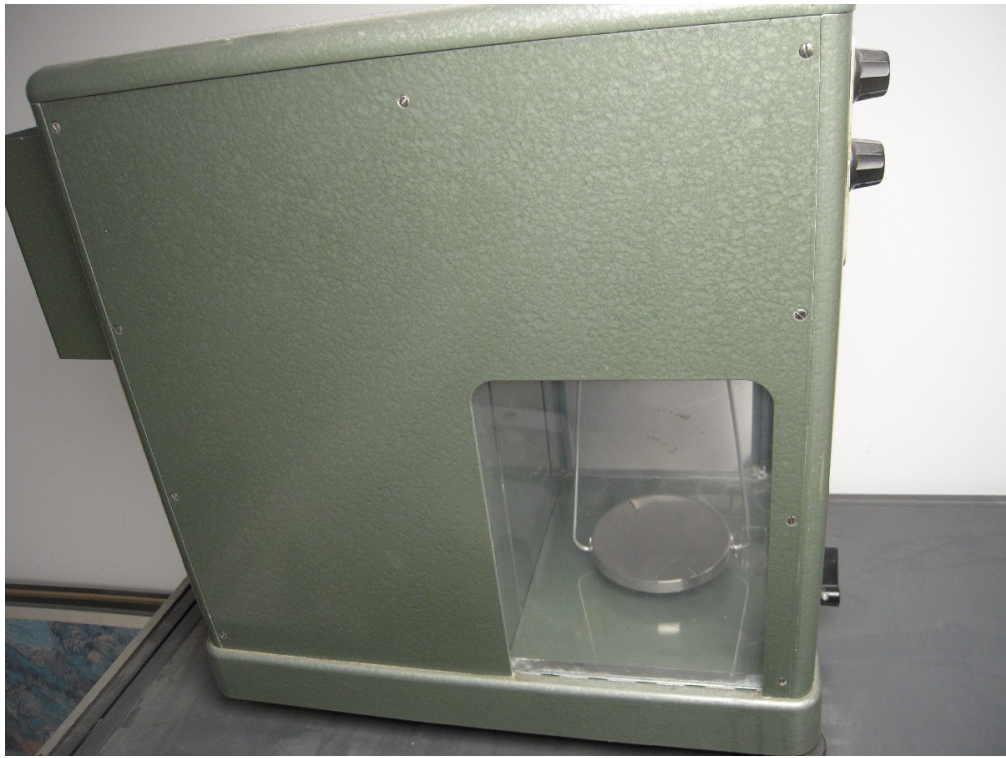
Description

La balance de Mettler comporte un seul plateau enfermé dans une enceinte vitrée. La pesée s'affiche sur un compteur numérique et une roue graduée. Quatre boutons permettent de régler les paramètres de pesée. La Balance de substitution de macro-analyse (Mettler B5) à fléau asymétrique permet une pesée de précision d'échantillons jusqu'à 200g.

Utilisation

Cette balance était utilisée en chimie pour la pesée des poudres à l'université Aix-Marseille III courant du XXe siècle. Elle se trouve dans une salle du laboratoire.





Mettler Macro Balances

11446 BALANCE, Analytical, Macro, Mettler B5—

Similar to No. 11443, but with twice the capacity.

Specifications are the same as for No. 11443, except as follows:

Capacity: 200 gm.

Sensitivity: 1 vernier graduation = 0.1 mg.

Readability: $\frac{1}{2}$ vernier graduation = 0.05 mg.

Accuracy in Optical Range for Differential Weighings: ± 0.05 mg.

Precision: ± 0.03 mg.

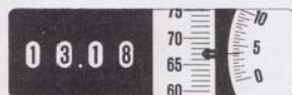
Taring, up to: 27 grams.

Each..... 895.00

Weight = 123.7306 g

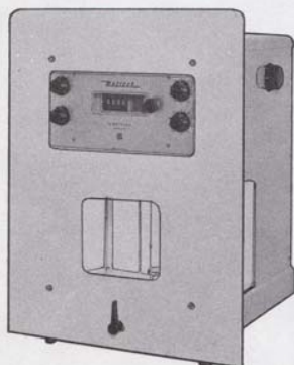
11446 Reading Scale

0 2 3 7

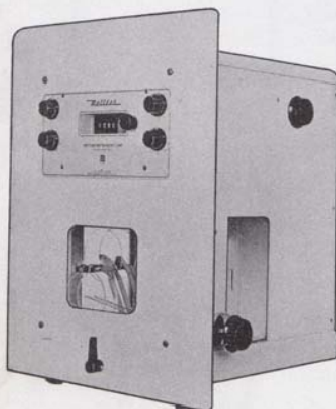


Weight = 13.186738 g

11441 Reading Scale



11441



11442

SPECIFICATIONS

Capacity: 20 grams.
Optical Scale Range: 20 mg.
Sensitivity: 0.005 mg.
Readability: 0.001 mg.
Accuracy in Optical Range for Differential Weighings: ± 0.002 mg.
Precision: ± 0.001 mg.
Damping: By air.
Knife Edges and Planes: Synthetic sapphire.
Beam: Aluminum alloy.
Pan: Non-magnetic chrome-nickel steel. Diameter, $1\frac{1}{2}$ ".
Bracket height, $3\frac{3}{4}$ ".
Dimensions of Weighing Compartment: $9\frac{3}{4}$ " x 6" x 6" high.
Dimensions: 15 " x $15\frac{1}{2}$ " x 18 " high.
Voltage: Adjustable to 110, 125, 145, 220 volts AC.
Each..... 1535.00

Mettler Analytical Balances, featuring the substitution weighing system, offer guaranteed accuracy, constant sensitivity and better precision. By a fundamental feature of design, the sample and the set of weights are compared with each other on a single lever arm at constant load. Also, the replacement of an outer knife edge by the counterweight rigidly secured to the beam, reduces the number of bearing points from 3 to 2, thus improving the precision.

Sensitivity is maintained at a constant level throughout the entire weighing range, so that accuracy can be guaranteed.

Owing to the wide range of the optical scale differential weighings of up to 200 mg (microbalance 20 mg) may be performed without using the set of weights. The determination of an unknown weight takes less than half a minute.

The counter of the weights lifted and the optical scale are arranged in the same field of sight, the result appearing in a single view line, so that reading mistakes are avoided.

Weights are of non-magnetic, chrome-nickel steel and are built into the balance so that they are subject to virtually no wear. All other essential functioning parts are also made of corrosion-resistant material. The large weighing compartment is easily accessible through two lateral sliding windows and the generously dimensioned pan is also designed to facilitate work.

Mettler Micro Balances

11441 BALANCE, Micro, Mettler M5—All weighings are made under a constant load of 20 grams. Weighs out correctly to six decimal places with accuracy of ± 0.002 mg. Accuracy is ± 0.002 when differential weighings are made within the 20 mg optical scale. The air-damper brings the aluminum alloy beam to rest quickly. Total weight is read directly from the counter and optical micrometer. Complete with weights adjusted to well within Class M tolerances, Magnifier-Light Shield No. 11477, cover, chamois, brush and spare lamp. Voltage adjustable to 110, 125, 145 and 220 AC.

SPECIFICATIONS

Capacity: 20 mg.
Optical Scale Range: 20 mg.
Sensitivity: 1 microm = 0.005.
Readability: $\frac{1}{2}$ microm = 0.001 mg.
Accuracy in Optical Range for Differential Weighings: ± 0.002 mg.
Precision: ± 0.001 mg.
Knife Edges and Planes: Synthetic sapphire.
Pan: Non-magnetic chrome-nickel steel. Diam. $1\frac{1}{2}$ ".
Bracket height, $4\frac{1}{4}$ ".
Size of Weighing Compartment: Base, $9\frac{3}{4}$ " x 6"; height, 6".
Dimensions: 15 " x $15\frac{1}{2}$ " x 18 " high.
Each..... 1450.00

11442 BALANCE, Analytical, Micro, Mettler M5 S/A—Designed for rapid and convenient handling of small samples for chemical analysis, assay work or for weight control of very fine manufactured parts. Loading of the sample takes place outside of the weighing chamber, considerably reducing disturbances to the balance caused by opening the weighing chamber doors. A simple turn of the pan extractor knob on either side of the balance replaces the pan on the pan holder. The access port has a diameter of $2\frac{1}{2}$ " and will handle samples up to $1\frac{1}{2}$ " high. The set of weights is adjusted to well within Class M tolerances.

(For specifications see adjoining column)

Pour nous citer :

Base de la Mission nationale de sauvegarde et de valorisation du patrimoine scientifique et technique contemporain, PATSTEC, Balance de substitution de macro-analyse (METTLER ; METTLER ; METTLER), <https://www.patstec.fr/ressources/objets/detail?id=24586>, consulté le 2026-07-28