

✓ **Applications**

Range of Dead weight tester is designed to test, adjust and calibrate measuring instruments, mechanical or electronic pressure by comparison (pressure gauges, pressure transmitters or sensors or switches)

They consist of a pressure generator, a piston / cylinder unit, a set of identified masses. The capstan is used to generate a pressure pushing the fluid through the piston. This pressure is balanced by the piston / cylinder which compares the instrument to calibrate the values of pressures generated by the standard. These scales are intended for pressure calibration on.

The Dead weight are robust and easy to use and have a high long-term stability.

✓ **Technical specifications**

- **Calibration :** It is necessary to recalculate the pressure generated by the dead weight according to the different variables. Our dead weight are calibrated in the following terms of use :
Temperature 20°C - Pressure atmos. 1013.25 hPa - Humidity 50% - acceleration 9.80665 m/s²
- **Lubricating fluid :** Colorless mineral oil, compatible with medical or food uses - tank volume 25 cm³ - The air oil in the dead weight exchanger system / prevents contamination of the piston / cylinder.
- **Source Pressure :** Dry air - gas connection ¼ cylindrical female - This balance needs to be connected to a pressure source.
- **Check/adjust the seat :** leveling bubble and adjustable feet
- **Connection for the instrument to be tested :** swivel G1/2 standard
- **Rotating weigh :** Training masses : manual rotation
- **Carter :** Light alloy aluminium AG3 + high-resistance paint
- **Ratchet :** removable for transport
- **Piston/cylinder :** Single piston hardened steel - **Répeatability :** 1.10⁻⁴ - **Sensitivity :** 5.10⁻⁵ - **Precision dead weight :** 10⁻³
- **Weight :** corrosion treated steel - **Weight** of the set of weights from 4 kg to 48 kg depending on model – Shape masses ergonomic, easy loading of the masses on the bell - **Marking** corresponding with the measuring unit (bar, mbar, KPa, PSI etc..)

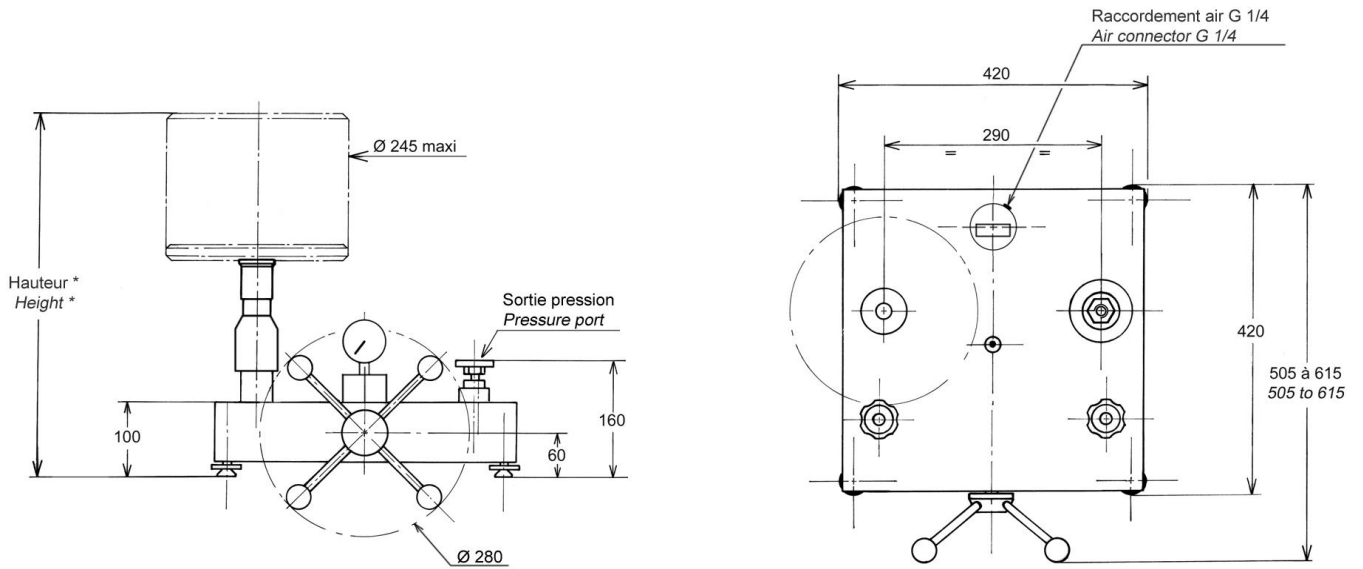
✓ **Specific Model**

- **Model :** BA1-120B – dead weight single piston
- **Measuring range :** 0.5 to 120 bar / 10 to 1600 PSI / 50 to 12000 kPa
- **Accuracy dead weight :** 0.002 +(1.10⁻³ x P) (with P in bar)
- **Weight dead weight without weight :** 18 kg
- **Typical cross-section of the piston :** 39.2280 mm²
- **Material piston/cylinder :** stainless steel
- **Number of piston :** 1

✓ **Various**

- **Manuel :** a detailed operating instructions supplied with the device + Certificate
- **Maintenance :** Our technical department is at your disposition for the revision, calibration or service your unit – Calibration device recommended every 2 years

✓ **Dimensions of device**



Height with standard set of weight : (bar, kPa) : 480 mm (PSI) : 455 mm

Unit used : mm

✓ **Standard weight sets and intermediate** (for other units contact us)

| Standard set | | | |
|---|----------------|--------------|-------------------|
| | Pressure (bar) | Total weight | Typical value (g) |
| Unit : BAR (Ref. MB0003) | 20 | 5 | 8000 |
| | 9.5 | 1 | 3800 |
| | 5 | 1 | 2000 |
| | 2.5 | 1 | 1000 |
| | 1 | 2 | 400 |
| | 0.5 | 1 | 200 |
| Initial Pressure bell + weight adaptation | 0.5 | | 200 |
| TOTAL | 120 | 11 | ±48 kg |

| Intermediate set | | | |
|------------------|-------------------------------|--------------|-------------------|
| | Pressure (bar) | Total weight | Typical value (g) |
| BAR | No set of intermediate weight | | |
| TOTAL | | | |

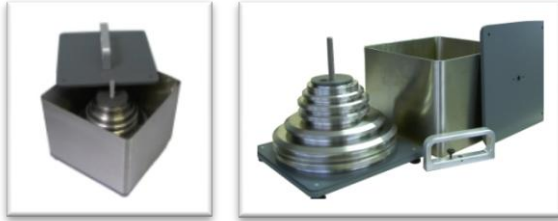
| Standard set | | | |
|---|----------------|--------------|-------------------|
| | Pressure (PSI) | Total weight | Typical value (g) |
| Unit : PSI (Ref. MB0009) | 200 | 6 | 5520 |
| | 190 | 1 | 5244 |
| | 100 | 1 | 2760 |
| | 40 | 2 | 1104 |
| | 20 | 1 | 552 |
| | 10 | 1 | 276 |
| Initial Pressure bell + weight adaptation | 10 | 1 | 276 |
| TOTAL | 1610 | 12 | ±44 kg |

| Intermediate set | | | |
|------------------|-------------------------------|--------------|-------------------|
| | Pressure (PSI) | Total weight | Typical value (g) |
| PSI | No set of intermediate weight | | |
| TOTAL | | | |

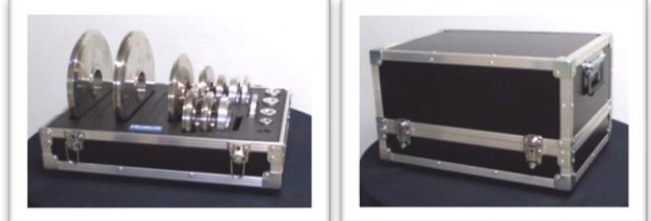
| Standard set | | | |
|---|----------------|--------------|-------------------|
| | Pressure (kPa) | Total weight | Typical value (g) |
| Unit : kPa | 2000 | 5 | 8000 |
| | 950 | 1 | 3800 |
| | 500 | 1 | 2000 |
| | 250 | 1 | 1000 |
| | 100 | 2 | 400 |
| | 50 | 1 | 200 |
| Initial Pressure bell + weight adaptation | 50 | | 200 |
| TOTAL | 12000 | 11 | ±48 kg |

| Intermediate set | | | |
|------------------|-------------------------------|--------------|-------------------|
| | Pressure (kPa) | Total weight | Typical value (g) |
| kPa | No set of intermediate weight | | |
| TOTAL | | | |

✓ **Options for weight set**



transport metal boxes
(OP0101) : 260 x 260 x 310 mm - weight empty : 6 kg



Wood boxes for post planning and transportation
(OP0095) box 4 : 220 x 270 x 300 mm - weight empty : 6 kg
(OP0099) large : 310 x 370 x 300 mm - weight empty : 11 kg

Useful for BA1-120B : Consult us ! (varies according units)

✓ **Options**

- Weight set additional base for different units
- Adjust the dead weight with a different acceleration of 9.80665 m/s² on request
- Calibration of the instrument : Points statement AREMECA or certificate of calibration DAkKS or COFRAC

✓ **Shipping and packaging**

- **Packaging** : woodpack is provided for the shipping

| Designation/Reference | Dimension / carton or shipping crate | Weight empty / total weight (packaging + materiel) |
|-----------------------------------|--------------------------------------|--|
| Dead weight without weight | 470 x 470 x 240 mm | Carton empty 1.5 kg Total weight ±20 kg |
| Standard weight set | 300 x 300 x 170 mm | Carton empty 1.5 kg Total weight ± 51 kg |
| Wood packaging SB0002 | 790 x 480 x 340 mm | Suitcase empty 20 kg Total weight ± 91 kg (dead weight + weight set + packaging) |



SB0002

- **Note** : shipping is extra.

✓ **Other models available in the range BA1**

(Datasheet is available on request)

Models single piston

| Models | Accuracy | Measuring range | | |
|---------|------------------|---------------------------|-----------|-------------|
| | | Bar or kg/cm ² | PSI | kPa |
| BA1-60B | 10 ⁻³ | 0.5 to 60 | 10 to 800 | 50 to 6000 |
| BA1-30B | 10 ⁻³ | 0.5 to 30 | 10 to 400 | 50 to 3000 |
| BA1-7B | 10 ⁻³ | 0.1 to 7 | 1 to 100 | 10 to 700 |
| BA1-1B | 10 ⁻³ | 15 mbar to 1 bar | | 1.5 to 100 |
| BA1-1VB | 10 ⁻³ | -15 mbar to -900 mbar | | -1.5 to -90 |

✓ **Accessories** (Ask for our specific documentation)

- Accessory case (ref.OP0057)
- Setting gauge kit (ref.OP0125)
- Case connectors M (ref.OP0174) – Case connectors G (ref.OP0171) - Case connectors NPT (ref.OP0172) - Case connectors BSP-TR (ref.OP0173) - Case with 17 connectors M + G + NPT + BSP-TR (ref.OP0037) – unit connector (consult us)
- Carrying case for dead weight (ref.OP0002)