



$$P = F/S$$

✓ Applications

This primary standard Range are designed to test, adjust and calibrate measuring instruments, mechanical or electronic pressure by comparison (pressure gauges, pressure transmitters or sensors or switches)

The dead weight tester consist of a pressure generator connected to a compressed air source, a piston/cylinder unit, a set of weigh identified. The capstan can adjust the pressure by the gas 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.

This reference instrument are used in factory or calibration laboratory. They are robust and easy to use and have a high long-term stability.

✓ Technical specifications of the range BA2

- Calibration :	Our dead weight tester are calibrated under the following conditions of use : Temperature 20°C - Pressure atmos. 1013.25 hPa - Humidity 50% - acceleration 9.80665 m/s ² In case you don't use it under the conditions mentioned above, it is necessary to recalculate the pressure generated by the dead weight according to the different variables.
- Source Pressure :	Dry air - gas connection ¼ cylindrical female
- Check/adjust the seat :	leveling bubble and adjustable feet
- Connecting for the instrument to be tested :	swivel G1/2 standard – other optional fittings
- Rotating weight :	Manual rotation of weights only
- Crankcaser :	Light alloy aluminium AG3 + high-resistance paint
- Capstan :	removable for transport
- Piston/cylinder :	Single piston treated steel or stainless steel + hard chrome depending on the model Repeatability : 3.10 ⁻⁵ - Sensitivity : 1.10 ⁻⁵ - Precision dead weight : 10 ⁻⁴
- Weight :	non magnetic stainless steel – Total weight of the set of weights from 4 kg to 48 kg depending on model –Ergonomic shape of the masses, easy loading of the masses on the bell - Marking corresponding with the measuring unit choose (bar, mbar, KPa, PSI etc..) Gravity : standard (9.80665 m/s ²) or local gravity without supplement
- Operating temperature:	18 to 28°C – 64 to 82°F

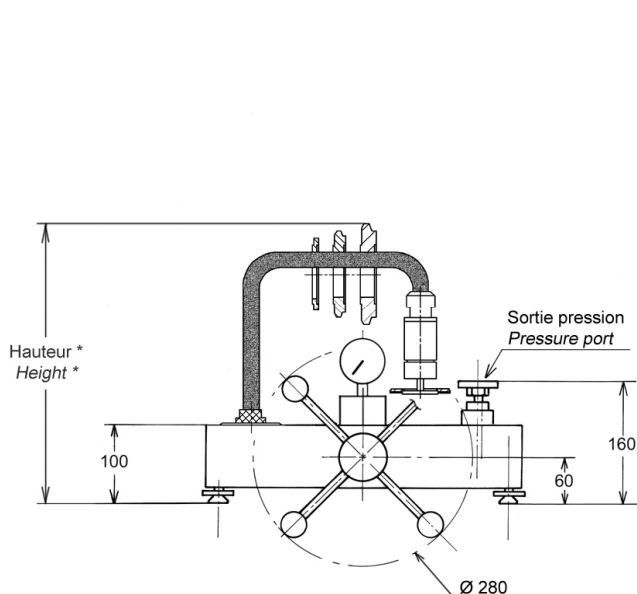
✓ Technical product specifications

- Model :	BA2-1VB – dead weight single piston
- Measuring range :	-15 to -900 mbar / -1.5 to -90 kPa
- Accuracy :	0.03% of reading up to 0.008% on request
- Weight of device without weight :	22 kg
- Fluid :	This DWT needs to be connected to a pressure source.
- Material Piston/Cylinder :	P = treated steel / C = treated steel
- Number of piston :	1

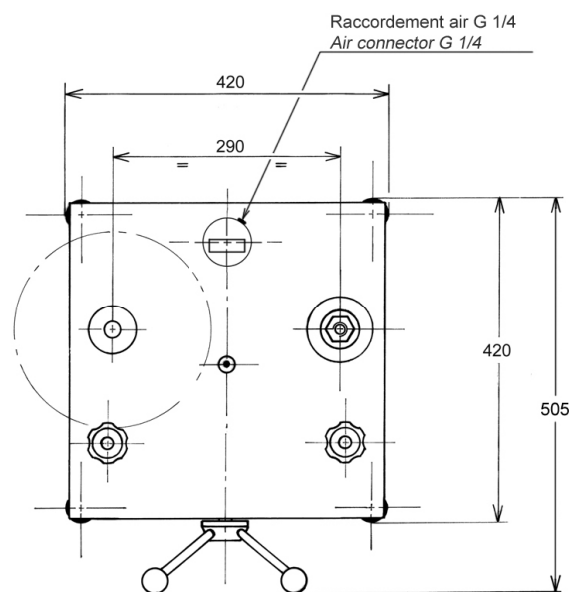
- **Device delivered with** : a user manual / an AREMECA calibration certificate traceable to national standards / a technical sheet of the device / 0.5 liter of mineral oil if lubrication system / G1/2 outlet fitting / tools

Note: All our documents can be delivered in English, French or German.

✓ Standard device dimensions



Height with standard set of weight : (mbar, mmH₂O, kPa) : 410 mm



Unit used : mm

CHOOSING OPTIONS

☒ **Gravitation option OFFERED** : we will adjust your weight set to the standard or special G (give us the desired value).

☒ **Unit option OFFERED** : choose the unit of the main weight set (e.g. PSI, BAR, Kg/cm²...) delivered with the DWT

☐ **Intermediate weight set option** : the intermediate weight set is offered as an option, the unit will be the same as the one selected for the main weight set.

Standard set			
Unit : mBAR (Ref. MB0008)	Pressure (mbar)	Total weight	Typical value (g)
	-400	1	1600
	-200	2	800
	-100	1	400
	-40	2	160
	-20	1	80
	-10	1	40
	-5	1	20
	Adaptation weight	-5	209
	Initial Pressure	-15	60
TOTAL		-1030	9 ±4 kg

Intermediate set			
mBAR	Pressure (mbar)	Total weight	Typical value (g)
	No set of intermediate weight		
TOTAL			

Standard set			
Unit : mmH ₂ O	Pressure (mmH ₂ O)	Total weight	Typical value (g)
	-4000	1	1600
	-2000	2	800
	-1000	1	400
	-400	2	160
	-200	1	80
	-100	1	40
	-50	1	20
	Adaptation weight	-50	209
	Initial Pressure	-150	60
TOTAL		-10300	9 ±4 kg

Intermediate set			
mmH ₂ O	Pressure (mmH ₂ O)	Total weight	Typical value (g)
	No set of intermediate weight		
TOTAL			

Other units are available on request

☐ **Optional DAkkS/DKD accredited calibration certificate.** Note: an AREMECA factory certificate is delivered with the dead weight tester. A DKD certificate will improve the results of your device

☐ **Maintenance option** : Our technical department is at your disposal to set up a maintenance contract for your device, as well as to schedule a calibration service - Calibration of the device is recommended every 2 years, depending on your use.

☐ Carrying case option :

	<p>Ref OP0101 - Metal box for mass transport Dimensions : 260 x 260 x 310 mm - unloaded weight : 6 kg 7 weights max per box</p>
	<p>Ref OP0257 – carrying case for the masses</p>
	<p>Workstation layout : large: 355 x 505 x 310 mm - empty weight: 13 kg small: 290 x 250 x 310 mm - empty weight: 5 kg</p> <p>1 or more boxes will be necessary depending on your DWT – Consult us !</p>
	<p>Ref OP0002 - Transport case for the balance or comparison bench. (BH5 or CH3 models contact us !)</p>

✓ Accessories



Ref OP0057 Accessories suitcase

Ref OP0025 drain kit for oil

ref OP0037 Suitcase with 17 adaptors type M + G + NPT + BSP-TR / Pressure max 1200 bar

Ref OP0062 Cleaning bench

Ref OP0171 Suitcase adaptors type G / Ref OP0172 Suitcase adaptors type NPT / Ref OP0173 Suitcase adaptors type BSP-TR / Ref OP0174 Suitcase adaptors type M

✓ Shipping and packaging

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

Designation/Reference	Dimension / carton or shipping crate	Weight empty / total weight (packaging + materiel)
Wood packaging		(dead weight + weight set + packaging)
DWT without accessories	79 x 48 x 34 cm	Total weight ± 62 kg
If option	98 x 70 x 50 cm	Total weight to be defined

- **Note** : shipping is extra.



✓ **Other models available in the range BA2**

(Datasheet is available on request or on our website : www.aremeca-instrumentation.com)

Modèles simple piston

Models	Accuracy	Measuring range		
		Bar or kg/cm ²	PSI	kPa
BA2-200B	0.01%	2.5 to 200	25 to 3000	250 to 20000
BA2-120B	0.01%	1 to 120	10 to 1600	100 to 12000
BA2-60B	0.01%	0.5 to 60	5 to 800	50 to 6000
BA2-30B	0.01%	0.1 to 30	2 to 400	10 to 3000
BA2-20B	0.01%	0.15 to 20		
BA2-10B	0.01%	0.15 to 10	2.5 to 150	15 to 1000
BA2-1B	0.03%	15 mbar to 1 bar		1.5 to 100