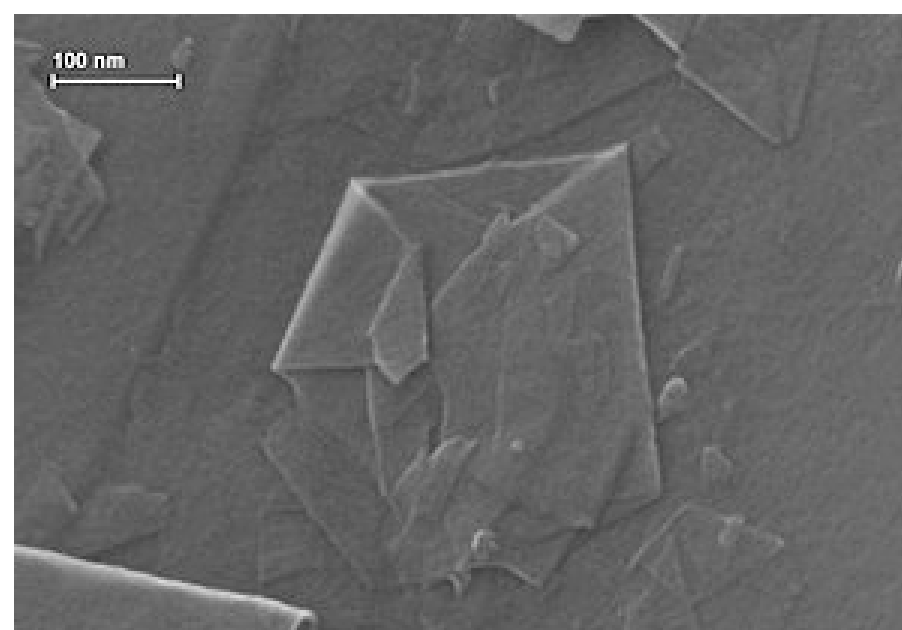


Graphite

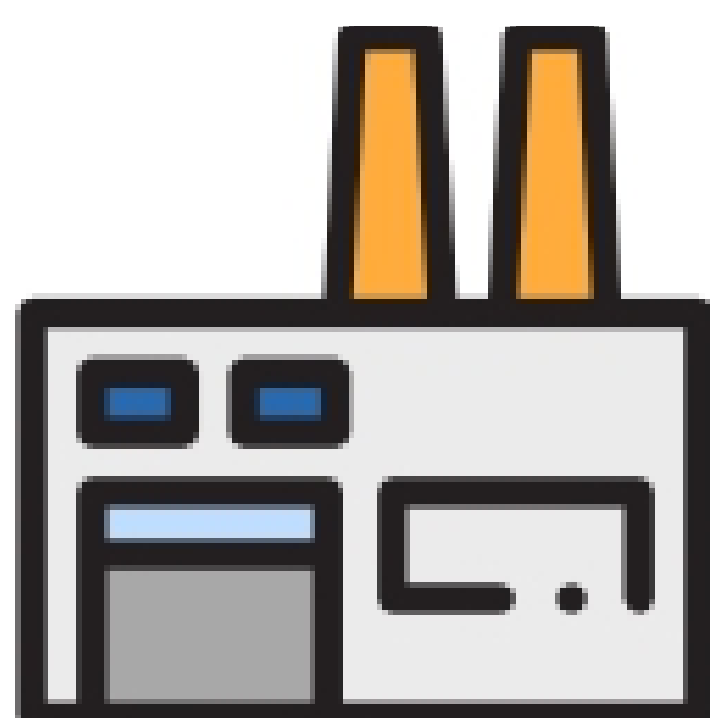
Graphite is widely used in touch screens, transistors, batteries, textiles, and even military fields due to its high thermal conductivity, electrical conductivity, elasticity, and density.

Generally speaking, it is manufactured by a complex process called "chemical vapor deposition". **The production cost is high and the yield is very low.** In theory, it is unlikely to be widely used in products on the market, also nearly 80% of graphite products use "multi-layer graphite" as graphite products, or the materials are unevenly distributed due to poor quality and manufacturing process control, and the extraction process absorbs too many environmental toxic substances. Overheating, low toughness, poor electrical conductivity, and other phenomena occur on the surface, and the quality is uneven.



Graphene flakes under electron microscope Image:Wikipedia

Applications



Applied to textiles, its unique current characteristics have **soothing, antistatic**, and **blood circulation** enhancement effects on the human body; used in the **military field**, its **light, absorbcency**, and **high hardness** characteristics are the best choices for ultra-light aircraft and body armor; used in **3C technology**, the excellent thermal conductivity, and electrical conductivity are widely used in heat sinks and electronic components.

At present, not only the manufacturing cost is too high but also the quality is very unstable. We can say, the primary goal is to **closely track and test the quality of graphite from refining to finished products** so that graphite materials can be widely used and maximized, and production costs can also be reduced.

The first condition to consolidate quality is to thoroughly explore the density. Not only **reduces** the time for the proportion of raw materials, but also **stabilize** the accuracy of quality.

TWS-PY Porous Solid Density Tester

TWS-PY checks the overall density of the sample, **show the most realistic analysis directly.**

The **pore structure** of graphite **greatly affects** the physical properties and durability of the product. We can say, the key point to confirm the quality, is to measure the overall density of the sample from the inside out.



Features:

- With Infrared temperature sensors can automatically detect the water temperature and automatically compensate for water temperature.
- With upper and lower limit functions and buzzer device, can determine whether the specific gravity of the test object is qualified or not.
- The large tank design is to reduce the error that caused by the buoyancy. The size of the water tank is 148 × 100 × 85mm.

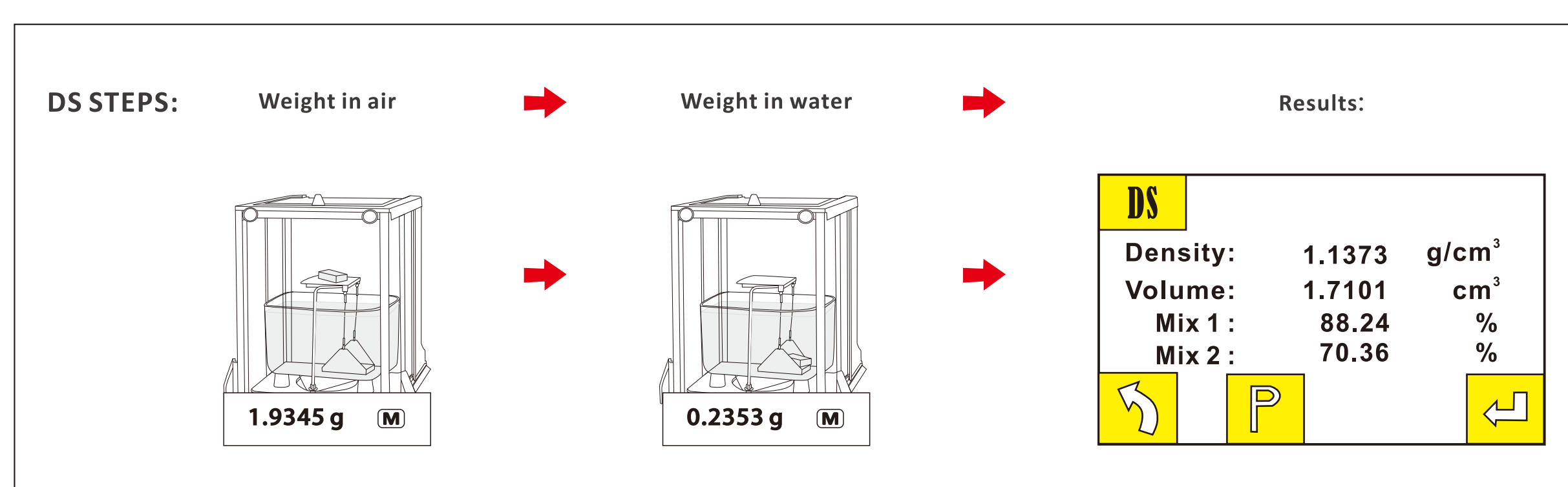
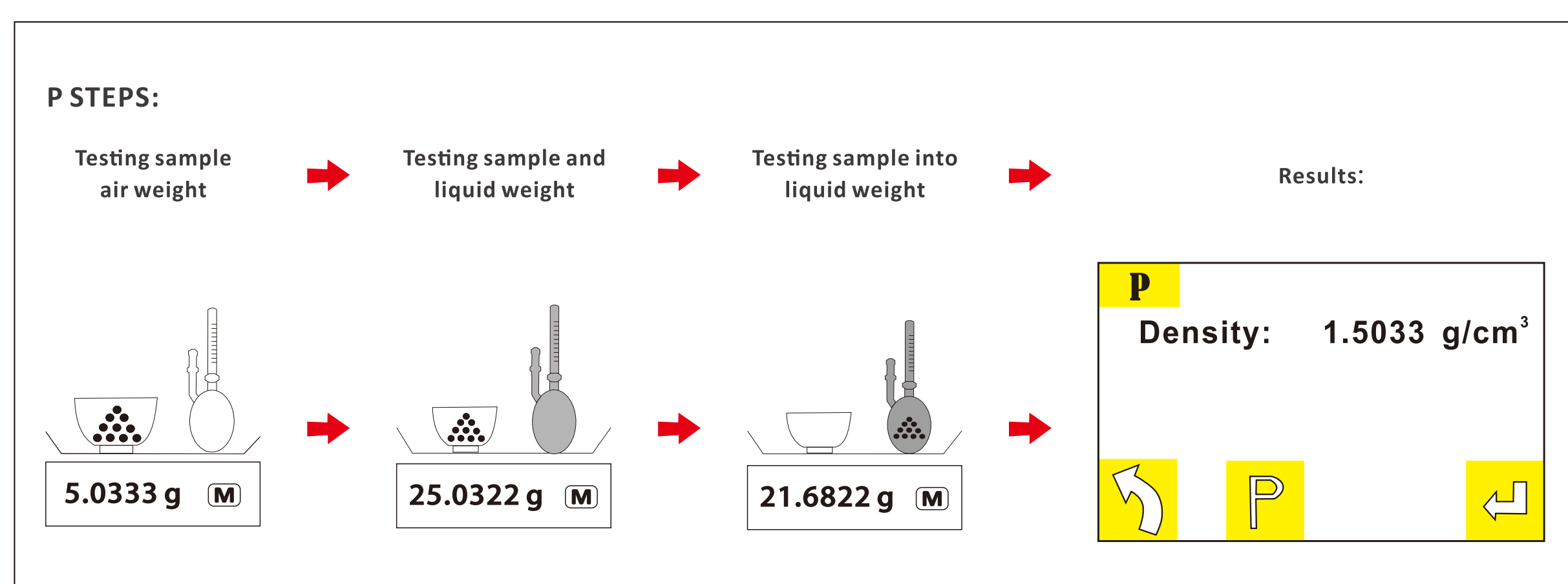
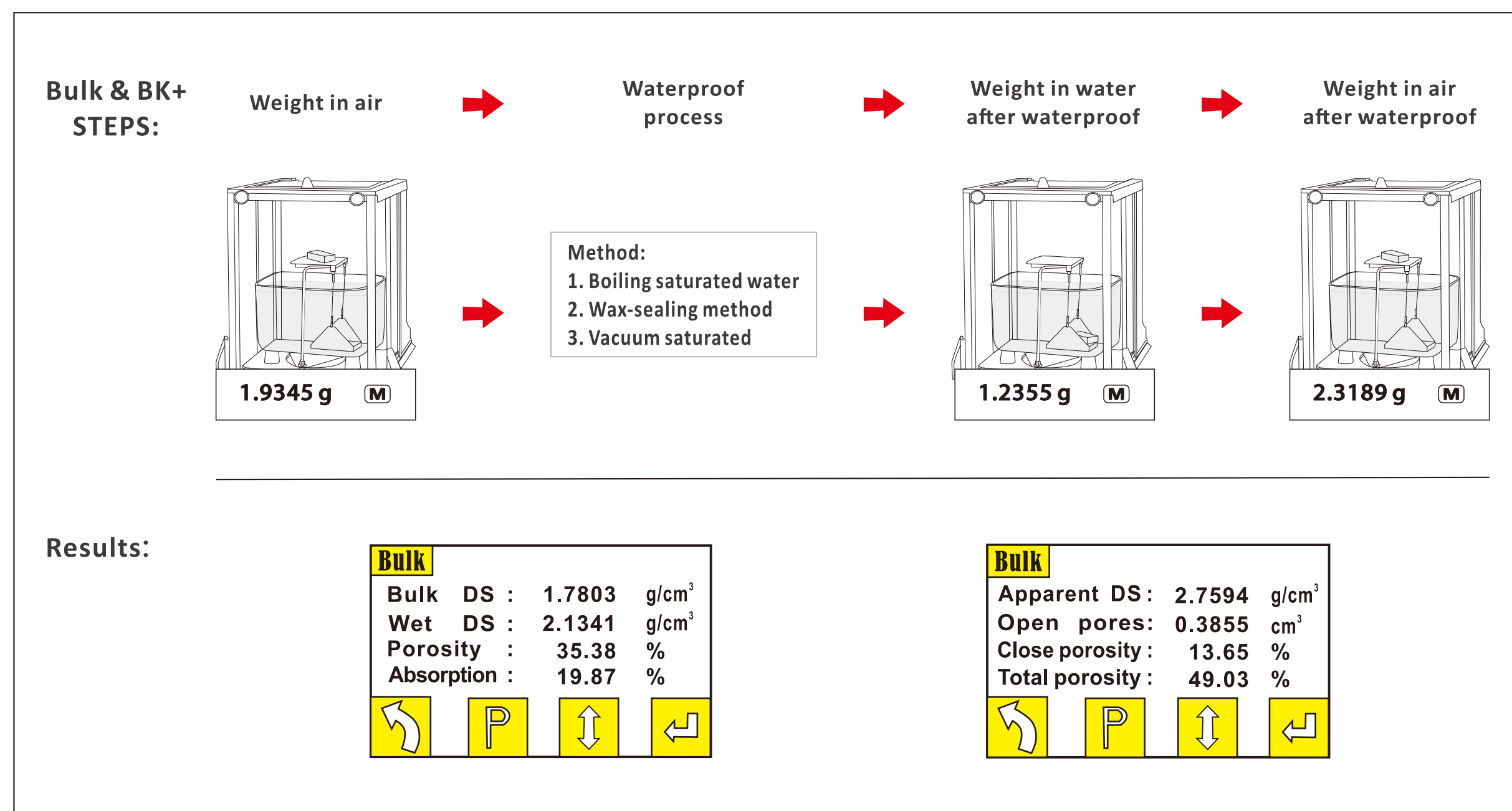
Testing Mode & Testing Steps

MatsuHaku PY series equipped **4** modes:

- BULK** - For porous absorbent material, directly shows the Bulk density, Wet density, Porosity, Absorption, Apparent DS, Open pores, Close porosity, Total porosity.
- BK+** - With **5 groups of memory functions**. For porous absorbent material, directly shows the Bulk density, Wet density, Porosity, Absorption, Apparent DS, Open pores, Close porosity, Total porosity.
- P** - For powder sample, shows the True density directly.
- DS** - For nonabsorbent material, shows the Density, Volume, Mix ratio directly.

International Standard

Applying the **buoyancy method of Archimedean principle** and the international standard of **ASTM C20, C128, C127, C134, C135, C437, C357, GB/T2997, 2998, 2999, 6155, 23561, 24203, 24528, AASHTO T84**



MatsuHaku Density Tester Keep You Aware Of

1. **Reduce** the cost and the **Defect** loss
2. Fit the international **Standard**
3. Make sure the quality **Stable**



With MatsuHaku Density Tester
Quality control is more easier than you thought