



# Orion PTS

PRECISION TESTING SOLUTIONS

## OR-BDA-ISOR60

### Bulk Density Apparatus

V1.01

Introducing a brand new range of materials testing equipment from **Orion-PTS**.

**Bulk Density also often called Apparent Density** is an extrinsic material property and is defined as the mass or weight of particles per unit volume including the space that they occupy. The measurement is useful for materials that include powders, granules, flakes and other divided materials. Typical examples are moulding powders, resins, granules and mineral components such as soil and gravel and it is very useful in understanding the bulk density of solid materials in industries that handle, process, and transport a variety of materials efficiently, which can change depending on how the material is handled.

#### The importance of Bulk Density

**Handling and Transportation:** Bulk density impacts handling and transport including material storage and transportation costs. .

**Processing Efficiency:** Understanding bulk density is essential when it comes to designing efficient processing equipment. This helps to determine appropriate size, capacity, and throughput of the equipment.

**Mixing and Blending:** Bulk density is crucial for accurately mixing and blending ingredients to ensure consistent product quality crucial for food and pharmaceuticals.

**Storage Optimization:** Different materials have varying bulk densities. Optimizing storage based on these bulk densities ensures efficient space utilization and minimizes the storage footprint.

The **ISO R60** Bulk density funnel is supplied on a robust stand with material shut off to prevent flow from the funnel prior to testing. The funnel meets the specifications in the ISO and ASTM D1895 (Appendix) test standard. The outlet bore size of the funnel is 3.3cm and is ideal for testing materials that would not typically flow through the ASTM D1895 method A funnel type. These materials would be typically powders, which can cause "caking" at the outlet bore or larger particles including flakes or granules typically bigger than 3mm in size. Also supplied is a standard measuring cup with a volume of 100cm<sup>3</sup>. An overflow catch tray complements the apparatus when scraping the excess material from the measuring cup which can then be returned to the feedstock for re-use. The funnels are CNC machined and polished internally from aluminium and are then anodised coated to reduce electrostatic discharge.



#### Specifications

- ISO R60 Bulk Density Funnel
- Manufactured to ISO (ASTM D1895 appendix) International Testing Standard.
- Manufactured from CNC machined Aluminium and anodized
- Polished funnel
- 3.3cm funnel opening
- Robust stand and sample shut off
- Sample overflow tray
- 100cm<sup>3</sup> sample measuring cup supplied
- Ideal for small samples that would usually cause "caking" at the bore or larger material sizes typically larger than 3mm in size
- Dimensions - 22.5cm x 18cm x 23cm
- Weight (kg) - 5kg
- CE Certified
- Certificate of Calibration

#### Options

- Weighing Balance 0.01g, 1100g capacity.