



# Orion PTS

PRECISION TESTING SOLUTIONS

## OR-BDA-ISO 6186

### Bulk Density and Pourability 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 6186** Bulk density is the ideal instrument for laboratories testing bulk density and pourability of materials such as powders and granules. The 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 to the ISO 6186 test standard and supplied with three interchangeable nozzles of 10mm, 15mm, and 25mm diameters which makes it ideal for ascertaining the processability and process control of the materials under test. The apparatus is also supplied with a standard measuring cup with a volume of 100cm<sup>3</sup> for bulk density testing. An overflow catch tray compliments the apparatus when scraping the excess material from the measuring cup or can be used to catch material during a pourability test 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 6186 Bulk Density and Pourability Funnel
- Manufactured to ISO 6186 International Testing Standard.
- Manufactured from CNC machined Aluminium and anodized
- Polished funnel to  $\leq 0.8\text{Ra}$
- 10mm, 15mm & 25mm interchangeable funnel nozzles and locking ring
- Robust stand and sample shut off
- Sample overflow tray
- 100cm<sup>3</sup> +/- 0.5cm sample measuring cup supplied
- Ideal for small samples or particles
- Dimensions - 22.5cm x 18cm x 23cm
- Weight (kg) - 5kg
- UKCA/CE Certified
- Certificate of Calibration

#### Options

- Weighing Balance 0.01g, 1100g capacity.
- Digital Stopwatch 0.1 sec