



# Orion PTS

PRECISION TESTING SOLUTIONS

## OR-DDi10

### Falling Drop Dart Tester

V1.01

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

The **Falling Dart Impact Tester** provides a basic method for determining the energy that causes plastic film or other flexible materials, usually no greater than 0.25mm, to fail under impact from a free falling dart. The energy required to tear or puncture the test specimen is expressed in terms of the darts weight (mass) which would result in the failure of 50% of specimens being tested. The instrument complies with methods A & B of the ASTM D1709 and ISO 7765 testing standards

The methods of holding the test specimen and releasing the dart are designed so that they may be accurately repeated for each test performed. Test specimens are securely clamped in the two piece pneumatic clamp system ensuring test repeatability without slippage of the sample. Standard dart drop heights of 660mm or 1500mm (optional extension kit required) fulfil the test requirement and can be easily set up. The instrument is a two handed operation to ensure optimum operator safety, to clamp the sample which then allows you to release the dart which is secured by an electro magnet. A dart rebound guard is also supplied to ensure the operators safety from rebounding darts.

Test calculations and reports are generated manually after each test and sample batch.

The apparatus is supplied as standard with an aluminium dart with a 38.1mm (1 1/2") spherical radius tip and a set of binary weights for testing up to 2kg in drop mass. Additional weights can be supplied if required (optional)

The instrument is multi voltage and designed to be bench mounted at 660mm drop height but can easily be placed on a floor if the 1.5mtr drop height test is required and you have limited ceiling height.

The instrument is ideal for laboratories that require simple testing to the ISO and ASTM test standards for the flexible packaging industry.



#### Specifications

- Conforms to ASTM D1709 & ISO 7765 test standards
- Bench mounted
- 660mm drop height as standard
- Manually operated
- Pneumatic sample clamp system
- Electro magnet dart release
- Two handed operation for user safety
- Simple to operate
- Weight (kg) - 35kg
- Dimensions - 44cm x 54cm x 120cm
- Traceable calibration certificate
- Product user manual
- UKCA/CE Declaration
- Warranty - 1 year return to base.

#### Options

- Method B extension kit - includes 50.8mm (2.0") dart & weight set
- Addition test weights methods A & B