

Model DX-8485-A Total Energy Dart Drop Tester

High-Performance Dart Drop Impact Tester With Total Energy Capability



The Model DX-8485-A Total Energy Dart Drop Tester with Integrated Load Cell. Standard load cell size is 11.4 kg (25 lb). Sample screen for DX-8300 software shown at lower right.

This instrument meets **both** ASTM D-4272 “Total Energy Impact of Plastic Films by Dart Drop” **and** D-1709 “Impact Resistance of Plastic Film by the Free-Falling Dart Method.”

Oakland Instrument Corp.

Specializes in the design, manufacture and distribution of test and measurement systems for the plastics, packaging, film, sheet and paper industries.

Customer-Driven

We team with our customers to help them solve their quality and process-control problems.

Technology-Based

Our applications knowledge and engineering depth allow us to offer both standard and custom systems based on industry-leading technology.

Oakland Instrument introduces its DX-8485-A Total Energy Dart Drop Tester, designed with a number of innovative capabilities available to blown film extruders and flexible packaging manufacturers for the first time. This instrument enables them to

- accomplish pass/fail, staircase and total energy dart drop tests with a single test instrument;
- measure dart weight information, dramatically increasing test accuracy and speed; and
- make process improvements aided by graphical information displaying dart weight values alongside pass/fail data.

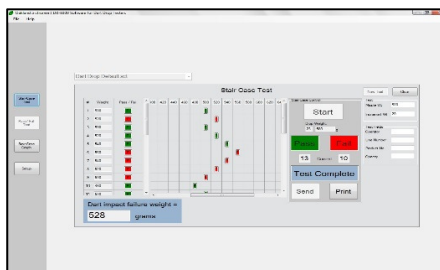
By automatically measuring and recording dart weight, the DX-8485-A eliminates the need for manual measurement and/or weighing of darts and data entry – reducing errors and speeding up the testing process.

A velocity meter integrated to measure dart speed gives operators the option of performing total energy testing in addition to traditional pass/fail or staircase dart drop tests. The total energy test provides an actual impact resistance value with a single dart drop – compared to 5-10 drops for the pass/fail test or up to 25 drops for the staircase test.

By integrating a precision load cell and combining it with pass/fail information, the DX-8485-A offers improved dart drop test accuracy and speed compared to other instruments.

In addition, the load cell enhances the flexibility of this instrument’s total energy test option: Instead of requiring operators to choose among five preselected fixed weights, the DX-8485-A’s firmware enables operators to select a variable weight (20 g-1,135 g) most appropriate for their film. Being able to choose a weight not significantly greater than their film break strength results in improved resolution and test accuracy.

Another commonly used test method, “increment to failure” testing, will soon be added to the DX-8485-A’s software. Requiring fewer dart drops than traditional pass/fail and staircase testing, this method allows operators to make process decisions based on where failure point lies in relation to guarantee point.



Specifications

Model DX-8485-A

Model DDI-8485-AB

Mode of operation:	Off-line testing / lab use Pass/fail dart drop testing Staircase dart drop testing Total energy impact testing	Off-line testing / lab use Pass/fail dart drop testing Staircase dart drop testing Total energy impact testing	
Materials:	All sheet materials	All sheet materials	
Test Method Drop Height:	Method A 26 inch (66 cm)	Method A & B 26 inch (66 cm) and 60 inch (152 cm)	
Actuation Method:	Electronic	Electronic	
Dart Release Mechanism:	Pneumatic	Pneumatic	
Sample Clamp Mechanism:	Pneumatic	Pneumatic	
Dart Set Included ASTM D-1709:	Method A: (412 g) (2) 120 g (1) 60 g (1) 30 g (2) 15 g	Method A: (412 g) (2) 120 g (1) 60 g (1) 30 g (2) 15 g	Method B: (1,310 g) (2) 320 g (1) 160 g (1) 80 g (2) 15 g
Dart Set Included ASTM D-4272:	Method A: 0.5 lb (227 g) 1.0 lb (454 g) 1.5 lb (681 g) 2.0 lb (908 g) 2.5 lb (1,135 g)	Method A: 0.5 lb (227 g) 1.0 lb (454 g) 1.5 lb (681 g) 2.0 lb (908 g) 2.5 lb (1,135 g)	
Optional Dart Set Incl. ASTM D-4272:	1,000 g	1,000 g	
Optional Dart Set Incl. ASTM D-5628:	N/A	FA (1a), FB (1b), FC (1c), FD (1d) and FE (1e)	
Dart Head Material Provided:	Aluminum	Aluminum (Method A) Stainless (Method B)	
Optional Dart Head Materials:	Phenolic Stainless Steel	Phenolic	
Accessories:	Model DX-8300 Dart Drop Software Model DX-8300 Pass/Fail Interface System, Top Mounted Pass/Fail Push-buttons Electronic Footswitch Actuator Option for Sample Clamp Electronic Footswitch Actuator Option for Dart Release		
Options:	Optional Two-Button, Safety Actuated, Electronic Sample Clamp, Side Mounted Optional Side Mounted Pass/Fail Push-buttons with Pass/Fail Interface System		
Air Requirements:	90 psi, dry & filtered	90 psi, dry & filtered	
Power Requirements:	115 VAC or 230 VAC	115 VAC or 230 VAC	
Overall Dimensions:	Height 79 inch, Weight 85 lb	Height 113 inch, Weight 90 lb	

(Due to continuous product improvement, all specifications are subject to change without notice.)

Ordering Information

BRODX8300-0419

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