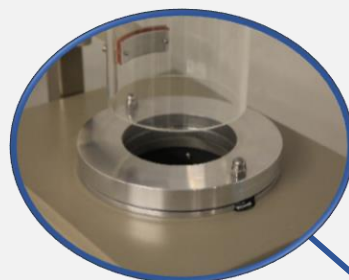


CSI-126 Series: Dart Drop Impact Tester



CSI-126 w/ Automatic Dart Lift System



Standard CSI-126

BENEFITS

- ✓ User Friendly
- ✓ Low Maintenance
- ✓ Accurate and Repeatable Results
- ✓ Rugged and Ergonomic Design

PRODUCT DESCRIPTION

The CSI-126 Dart Drop Impact Tester is an easy-to-use, ergonomic instrument measuring the impact resistance of plastic film, coated paper and related materials. The Dart Drop is designed to perform free falling weighted dart impact tests on plastic film and sheeting according to ASTM D1709 and ISO 7765-1. It is optionally equipped with a full range of darts and incremental weights. The darts are suspended from an adjustable release mechanism at predetermined column drop heights and then dropped onto the specimen. The impact resistance is derived from the mass of the dart and the drop height that cause the specimen to crack or rupture.

The ergonomically designed CSI-126 puts safety first by providing a protective shield, safety button guard, foam lined dart return bin, and a pneumatic dart release that exceeds the 2kg capacity specified in the international test standards.

The dart release is adjustable for heights from 45.7 to 152 cm (18 to 60 in). The pneumatic specimen clamp has been designed to allow for a roll of test material to be easily fed from one side of the Dart Drop to the other for continuous testing.

The CSI-126 can be optionally supplied with an automatic dart lift system, which aids the operator to load the darts without the use of any platform or ladder. This is a pneumatically operated, two position system where its lowest position is factory set to 0.66 ± 0.01 m. (26.0 ± 0.4 in.) drop height, and the highest to $60.0 +0.25/-1.70$ inches. These drop heights correspond to ASTM D-1709 Method A and Method B. The Dart Lift System may also be stopped at any position by operating the "Dart Position" switch within the Method A and Method B positions.

Standard CSI-126 w/ Cold Chamber



TECHNICAL DATA

STANDARD FEATURES

- Ergonomic design
- Capable to meet both methods of ASTM D1709 and ISO 7765-1
- Fully Adjustable Dart Drop Height
- Pneumatic specimen clamping with continuous feed
- Pneumatic dart release exceeds 2kg capacity
- Safety shield
- Dart Retraction Cup, Foot Operated
- Safety Wall Brace
- Centering Device, removeable bob pin

OPTIONAL FEATURES AND ACCESSORIES

- Optional Automatic Dart Lift (ADL) System with 2 position lift
- Optional Total Energy System (TES) per ASTM D4274
- Optional Cold Chamber System (CCS) for low temperature testing
- Dart Heads for various international test standards
- Test Weights for various international test standards

SPECIFICATIONS

Specimen Clamps:	127 ± 2 mm ID	
Dart Holder Capacity:	3.0 kg <i>maximum</i>	
Darts:	Phenolic head:	38.1mm dia, 50g
	Aluminum head:	38.1mm dia, 70g
	Stainless steel head:	51.8mm dia, 330g
	<i>Other weights available upon request</i>	
Max Drop Height:	71 inches (1.8 m)	
Available Weights:	5 g., 31.75 mm dia	
	15 g., 31.75 mm dia	
	30 g., 31.75 or 44.5 mm dia	
	60 g., 31.75 mm dia	
	90 g., 44.5 mm dia	
	120 g., 31.75 mm dia	
	180 g., 44.5 mm dia	
	<i>Other weights and geometries available</i>	
Warranty:	1 Year Manufacturer's Warranty	
Technical Support:	Lifetime	

The optional Total Energy System measures the energy required to penetrate the sample material. This system tests impact strength by measuring the residual energy of the dart after it passes through the specimen. By careful control of drop height, the speed of the dart can be measured as it passes through a photosensor. When the specimen is placed in the path of the dart, the decrease in speed is measured by a high-speed timer and the difference can be computed as energy. The Total Energy system meets ASTM D4272.

In order to meet European 918:1995 for geotextiles and geotextiles-related products, an optional dynamic perforation (cone drop) test kit is also available. The test kit consists of a special cone shaped dart and measuring device and indicates how resistant the product is likely to be to sharp stones dropped onto the geotextile surface.

Optionally, the apparatus can also feature a built-in cooling chamber to lower the specimen temperature prior to releasing the dart onto the specimen. Temperature drop is automatically accomplished using nitrogen gas; test temperature can be adjusted as required by the detailed specification for testing the particular material. The temperature controller is a microprocessor-based device, capable of temperature control as programmed by the operator.

Whether you require in-house quality control testing of incoming materials or must meet the international test requirements to supply the world market, the CSI-126 offers an economical, easy-to-use solution to your impact testing needs.



Dart Retraction Cup, Foot Operated

WEIGHTS AND DIMENSIONS

Approx. Physical Dimensions:	14" x 23" x 115" (CSI-126) 14" x 23" x 115" (CSI-126 with ADL)
Approx. Physical Weight:	180 lbs. (CSI-126) 280 lbs. (CSI-126 with ADL)
Approx. Ship Weight:	310 lbs. (CSI-126) 425 lbs. (CSI-126 with ADL)
Approx. Ship Dimensions:	26" x 32" x 71" (CSI-126) 36" x 36" x 75" (CSI-126 with ADL)

INSTALLATION REQUIREMENTS

Space required:	Floor	10.8ft ² (1m ²)
	Ceiling Height	118 in. (3.0 m)
Air Supply:	Compressed Air:	Clean, Dry
	Pressure:	4.8 bars (70psi)
	Flow Rate:	2.8 L/min (0.1 cfm)
Electrical Configuration:	115/220 VAC, 50/60Hz, 1Ph (Total Energy System and Cold Chamber System Only)	
Nitrogen Supply:	Pressure:	15 - 35psi

APPLICABLE STANDARDS

- ASTM D1709
- ASTM D3029
- ASTM D4272
- ISO 7765-1
- EN 918:1995
- GB 9639
- JIS K7124
- EN ISO 13433
- NF T54-109