

## Falling Dart Impact Tester

The Davenport falling dart impact tester determines the impact resistance of thin flexible materials, such as plastic films, plasticised papers and composite sheets by the free falling dart method to EN ISO 7765-1:2004 and ASTM D1709 Methods A and B (depending on model used).

The apparatus establishes the energy required to tear film specimens under specified conditions of impact of the free falling dart. The energy is expressed in terms of the weight of the dart when 50% of the film specimens fail under the conditions specified.

The sample is held down by a pneumatically operated clamp. A range of weights is provided to enable tests to be performed on various film thicknesses. The working range of the weights is established by finding the weight that will just break the sample film.

Three model options are available:

### Falling Dart Impact Tester Model A:

Complies with EN ISO 7765-1:2004 and ASTM D1709 Method A. Single dart drop of 660 mm and drop weights from 20 g up to a total of 1640 g. The sample is held down by a vacuum and clamping ring. A variety of weights and a 20 g and 60 g dart are supplied. Suitable for testing thin film and the edge of tubular film of low impact strength.

### Falling Dart Impact Tester Model B:

Identical to Model A except that the sample is held down by a pneumatically operated clamp suitable for film thicknesses greater than 250 microns. For safety reasons, the full clamping pressure can only be applied when *both* the operators hands are completely clear of the clamping system.

### Falling Dart Impact Tester Model C:

Complies with EN ISO 7765-1:2004 and ASTM D1709 Methods A and B. Two dart drop heights available: 660 mm and 1525 mm. Additional darts and weights up to 1210 g are supplied

### Features

- Conforms to EN ISO 7765-1:2004 and ASTM D1709
- Simple set up, operation and maintenance
- Complies with international standards
- Pneumatic clamping for stronger films
- Automatic release of dart at correct angle
- Dual height option
- Floor mounted system
- Heavy-duty, robust construction

### Specifications

Mounting:	Floor
International Standards:	EN ISO 7765-1:2004 and ASTM D1709 Methods A and B
Dart Head Diameters Method A:	38.1 mm
Dart Head Diameters Method B:	50.8 mm
Dart Drop Heights:	
660 mm	Models A, B and C
1525 mm	Models C
Electrical Supply:	220/240V 50Hz or 100/120V 60Hz
Net Weight:	82 kg (181 lb)



Clamping Mechanism



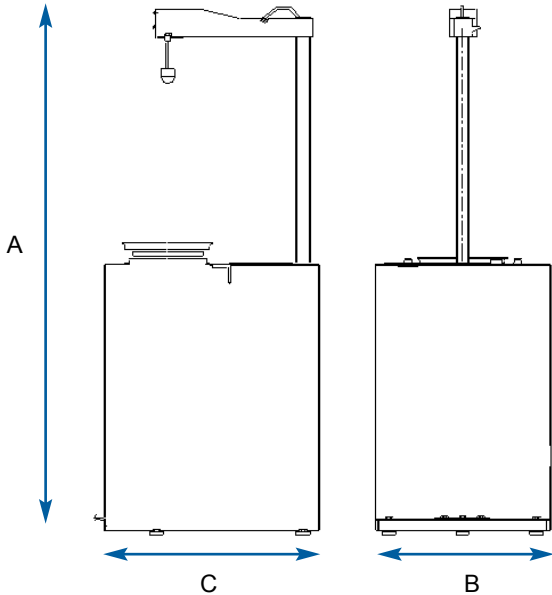
Weights applied to Dart



## Standard Accessories supplied with the Falling Dart Impact Tester Models A, B and C

Item	Model	Part No	Item	Model	Part No
<b>Falling Dart Impact Tester Model A supplied with:</b>			<b>Falling Dart Impact Tester Model C supplied with:</b>		
20 g Dart	FD/DART 20	07/1783	10 g Dart	FD/DART 10	07/1784
60 g Dart	FD/DART 60	07/1782	20 g Dart	FD/DART 20	07/1783
Locking Collar	FD/LC	COT/0065/00	60 g Dart	FD/DART 60	07/1782
Weight Set for Method A consisting of:	FD/WT/SET A	07/2246	100 g Dart	FD/DART 100	07/1781
5 g Weight (2 off)	FD/WTA/5	WGT/0257/00	Locking Collar	FD/LC	COT/0065/00
15 g Weight (2 off)	FD/WTA/15	WGT/0258/00	Weight Set for Method A	FD/WT/SET A	07/2246
30 g Weight (2 off)	FD/WTA/30	WGT/0259/00	Weight Set for Method B consisting of:	FD/WT/SET B	07/2247
60 g Weights (2 off)	FD/WTA/60	WGT/0260/00	15 g Weight (2 off)	FD/WTB/15	WGT/0261/00
120 g Weight (3 off)	FD/WTA/120	WGT/0264/00	45 g Weight (2 off)	FD/WTB/45	WGT/0262/00
550 g Weight (2 off)	FD/WT/550	50/63	90 g Weight (2 off)	FD/WTB/90	WGT/0263/00
<b>Falling Dart Impact Tester Model B supplied with:</b>			180 g Weight (3 off)	FD/WTB/180	WGT/0265/00
20 g Dart	FD/DART 20	07/1783	550 g Weight (2 off)	FD/WT/550	50/63
60 g Dart	FD/DART 60	07/1782			
Locking Collar	FD/LC	COT/0065/00			
Weight Set for Method A	FD/WT/SET A	07/2246			
550 g Weight (2 off)	FD/WT/550	50/63			

### Product Dimensions



		mm	in
A	Height (Models A & B)	1650	65
A	Height (Model C)	2565	100
B	Width	500	20
C	Depth	840	33

*Note: Models B and C require compressed air at 5.5 bar (80 psi).*

### Ordering Information

Model	Part No	Description
FDA/115	01/2847	115V Falling Dart Impact Tester Model A
FDA/230	01/2343	230V Falling Dart Impact Tester Model A
FDB/115	01/2862	115V Falling Dart Impact Tester Model B
FDB/230	01/2344	230V Falling Dart Impact Tester Model B
FDC/115	01/2853	115V Falling Dart Impact Tester Model C
FDC/230	01/2345	230V Falling Dart Impact Tester Model C

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