

More Than a Century of Testing Solutions

Thwing-Albert's ZDT Tester is a compact, precision PC-controlled instrument that measures the internal fiber bond strength of paper, paperboard, liner board and coated fine papers. Z-Directional force provides an indication of expected material performance relating to glue-bonding of carton corners and seams, delamination, and the use of high tack coatings. The ZDT Tester is a fully automated instrument that performs sample compression, dwell time and ZDT according to TAPPI T541. A self-adjusting test platen ensures uniform tension is applied to pull the sample apart.

## **Integrated Control**

Utilizing cutting-edge technology, all electronics and controls are fully integrated into the test frame. No external control boxes or additional PC interface cards are required enabling the connection to a standard PC with a serial port. In order to maximize efficient use of lab space, the ZDT Tester is only 250 mm (10 in) wide and 419 mm (16.5 in) deep. A magnetic test-control keypad is easily moved to provide the most ergonomic positioning for the operator. Other benefits include one-touch auto zero and a software-based automatic calibration system.

## **Powerful Software**

ZDT application software, provided with the unit, utilizes MAP<sup>™</sup>, a Windows<sup>®</sup>-based materials testing software package. ZDT software enables the user to quickly setup test parameters including compression force, speed, dwell time and length of test. ZDT software also provides advanced capabilities for database management and

reporting. Test comment fields allow the operator to enter information after the completion of the test indicating test failure or other pertinent details. ZDT software will automatically write result data to other software packages including Access<sup>™</sup> and Excel<sup>™</sup>.

- VI C							
Load Bt			Timo		Position in		
0.0		3.15	3.15.24 PH		0.030		
a auda	DOTAL COMM	al fit threads	A ret	-		-	
× 3 m-	Married Street, or other	Sanute, MILLangin, MILLangin, MILLangin, 1947					
Carrie 744	SHORMAGE						
Sandy '545	1 I I I I I I I I I I I I I I I I I I I						
A Augle 18							
Cauder, Sec.							
	1	10					
	1.1	1					
	1	6					
	1.1	L					
	22	L	~	_			
			_	028 310	10 115 14		
			1 670	078 510 Refer. 0	630 105 646	-	
			1 62	Network	Enquire Net		
		TH 101 51	1 620	Bestonium:	non on some		
	Carole	IN IN OF	1 12	Notes a	Encoderation	14	
	C all and a second seco	Hermanifron	1 42	Protonium States En Sila	Energiadics in Part		
	C market	Heatman Food	2 2 2	Redoxn Nepharatikett Sid T R	Energiades an Over-		
	7 10 10 10 10 10 10 10 10 10 10 10 10 10	Mediana Con Sci Sci Sci Sci Sci Sci Sci Sci Sci Sci	20	Protonum Cherry La Sid T 1 152 192	Energader wilfver- BEX BEX BEX BEX BEX		
	C III IIII IIIIIIIIIIIIIIIIIIIIIIIIIII	Bits Bits Col   Bits Bits Col   Sci Sci Col   Sci Col Col   Sci Sci Col   Sci Col Col   Sci Sci Col   Sci Sci Col   Sci Sci Col	1 43 27	Redor, n Pripring to Certe Sch T 1 152 162 162 162	Energader wilfver- BCX BCX BCU BCS BCS BCS	-	
	7 10 10 10 10 10 10 10 10 10 10 10 10 10	Bits Bits Col   Bits Bits Col   Sci Sci Col   Sci Col Col   Sci Sci Col   Sci Col Col   Sci Sci Col   Sci Sci Col   Sci Sci Col	1 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Protonum Cherry La Sid T 1 152 192	Energader wilfver- BEX BEX BEX BEX BEX		
	r and a second s	100 E10 03 201 316 052 327 217 155	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Redexs Pignurs/Serre 284 27.3 152 387 153	Energiter on Par- texx ecci ecci ecci ecci ecci ecci ecci e		

▲ Overlay test curves for a quick comparison



# **Z-Directional** Vantage Tensile Tester



## Features

- ZDT test software included
- Conforms to TAPPI T541
- Conforms to ISO 15754
- One USB Interface to a PC
- No PC interface cards
- Serial load cell interface
- Self-adjusting test platen
- Automatic electronic calibration
- Movable test control panel
- Side electronics panel for easy serviceability

# **Physical Specifications**

1750-2013*
------------

Width	254 mm (10 in)
Depth	419 mm (16.5 in)
Height	800 mm (31.5 in)
Net Weight	51 kg (112 lb)
Crosshead Travel	584 mm (23 in)

\*Above Dimensions do not include PC.

## **Test Platens**

Upper (Self-Adjusting):  $6.45 \text{ cm2} (1 \text{ in}^2)$ Lower: 63 mm x 63 mm (2.5 x 2.5 in)

## **Performance Data**

Crosshead Guidance Precision Ball Screw

Horizontal Clearance Unlimited

Depth Clearance 89 mm (3.5 in)

Force Capacity 1 kN (225 lb)

Force Measurement High precision 2 kN (450 lb) load cell

### **Force Accuracy**

10% to 100% Load Capacity: ±0.25% Measuring Value

Less than 10% Load Capacity: ±0.025% of Load Cell Capacity

Force Resolution 16 Bit A/D to 0.1 N

Position Resolution 0.6 µm (0.00002 inch)

System Control PC-Based with USB interface (No PC slave cards)

Specifications subject to change without notice.



**Operating System** Windows<sup>®</sup> XP, Windows<sup>®</sup> 7, Windows<sup>®</sup> 8

Crosshead Speed 1 to 1000 mm/min (0.05 to 40 in/min)

Speed Accuracy ±0.1%

Safety Features Emergency stop button, upper & lower limit switches with over-travel protection and load cell overload protection

Power Requirements 110 VAC, 50/60 Hz / 220/230 VAC, 50 Hz / 240 VAC, 50 Hz

#### **Operating/Storage Environment**

#### Air Temperature

Operating:	10° to 50° C
Storage:	-25° to 70° C

(50° to 122° F) (-13° to 158° F)

Relative HumidityOperating:10%Storage:5%

10% to 85% (Non-Condensing) 5% to 90% (Non-Condensing)



10-11 Colrado Court, Hallam Victoria 3803, Australia Telephone: 61 3 9708 6885 Facsimile: 61 3 9708 6770 Email: idm@idminstruments.com.au Web: www.idminstruments.com.au