

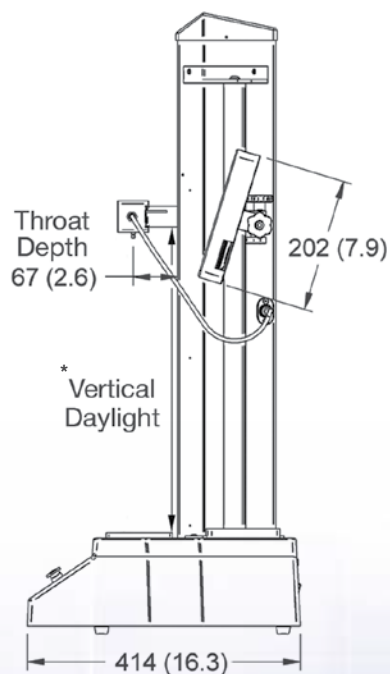
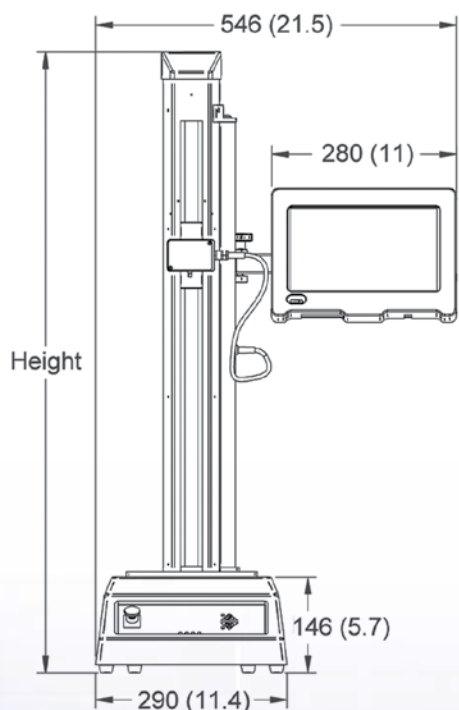
# Mecmesin

testing to perfection

## MultiTest-xt Technical Datasheet



# MultiTest 0.5-xt, 1-xt & 2.5-xt

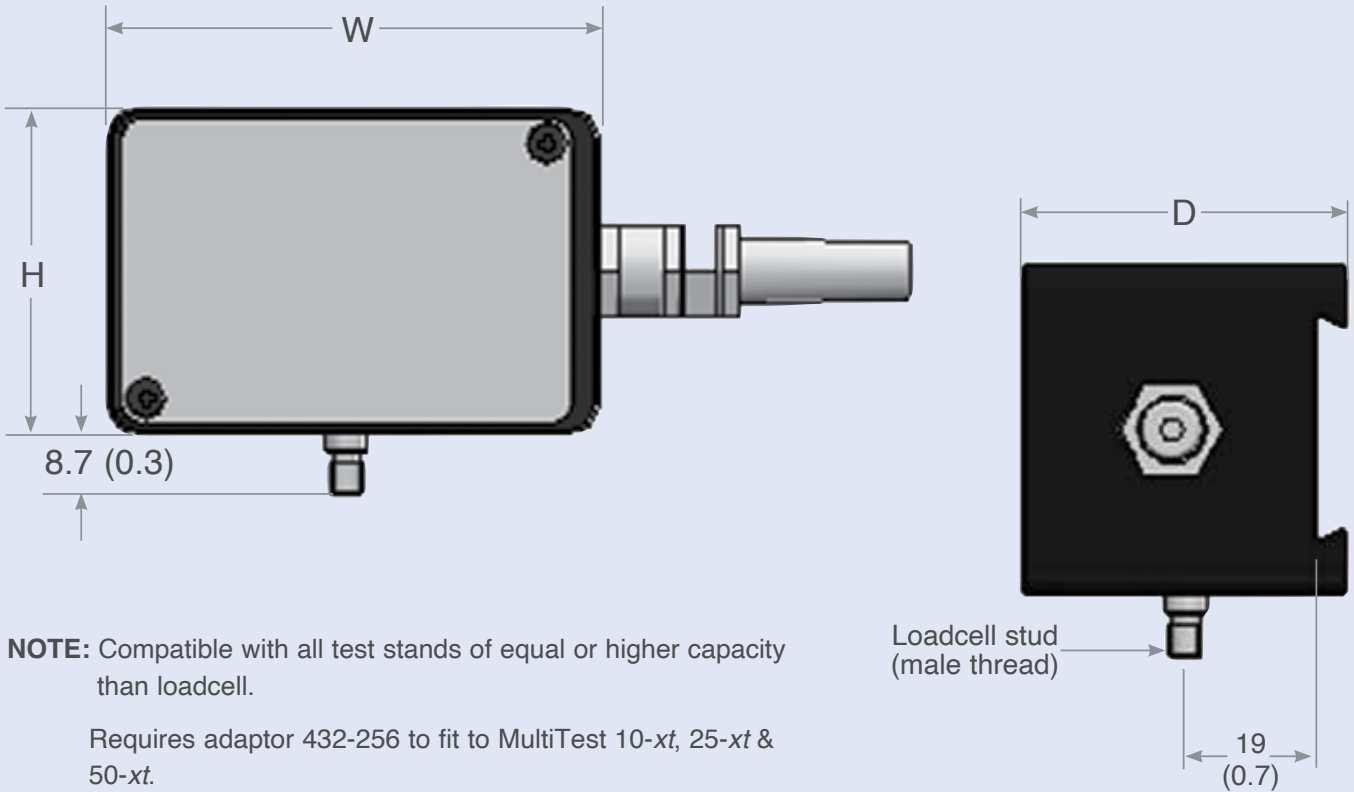


All measurements are in millimetres and (inches)

	Height	Width (test frame only)	Max Width (with console fitted)	Depth	Vertical Daylight*
MultiTest 0.5-xt	1616 mm (64)	290 mm (11.4)	546 mm (21.5)	414 mm (16.3)	1267 mm (49.9)
MultiTest 1-xt	1416 mm (56)	290 mm (11.4)	546 mm (21.5)	414 mm (16.3)	1067 mm (42)
MultiTest 2.5-xt	941 mm (37)	290 mm (11.4)	546 mm (21.5)	414 mm (16.3)	588 mm (23.1)

\* Measured without loadcell or grips

# Intelligent Loadcell ILC



**NOTE:** Compatible with all test stands of equal or higher capacity than loadcell.

Requires adaptor 432-256 to fit to MultiTest 10-xt, 25-xt & 50-xt.

All measurements are in millimetres and (inches)

ILC capacity	Part No.	Thread	Overall daylight reduction	Loadcell width (W)	Loadcell depth (D)	Loadcell height (H)	Total daylight reduction using twin-column dovetail (432-256)
2 N	879-009	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
5 N	879-010	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
10 N	879-001	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
25 N	879-002	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
50 N	879-003	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
100 N	879-004	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
250 N	879-005	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)
500 N	879-006	#10-32UNF	15 (0.6)	72 (2.8)	46.5 (1.8)	48 (1.9)	99 (3.9)

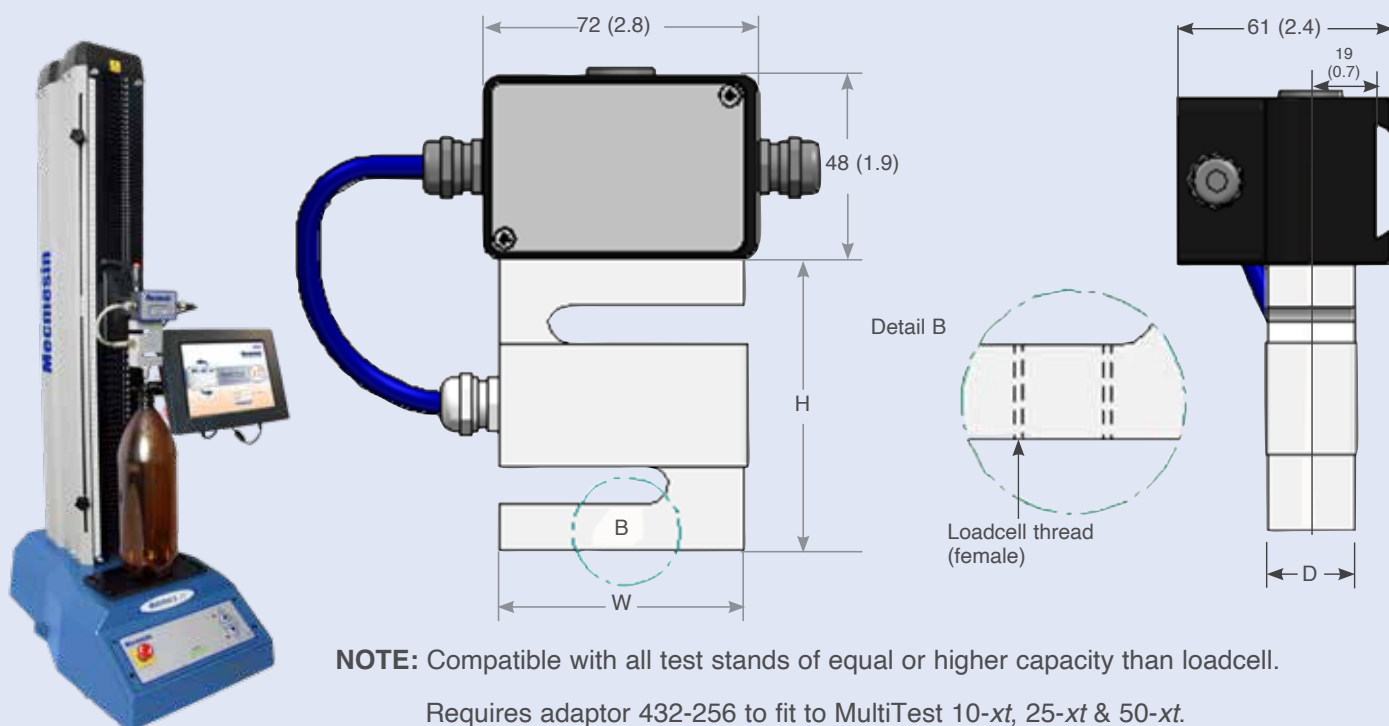
See page 3 for ILC-S loadcells (100 N to 5000 N)

## ILC Load Measurement Accuracy

% of full scale (fs)	N
± 0.1% fs	2 N - 500 N

# MultiTest 5-xt

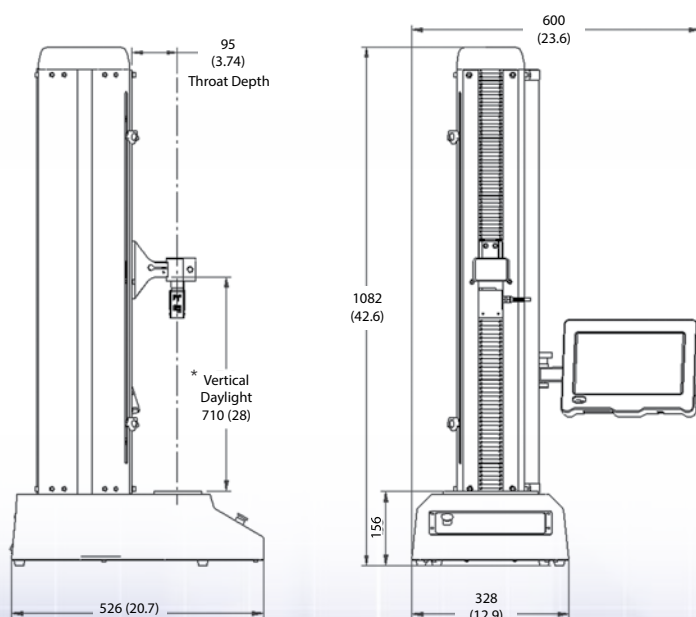
## Intelligent Loadcell ILC-S



ILC-S capacity	Part No.	Thread	Overall daylight reduction	Loadcell width (W)	Loadcell depth (D)	Loadcell height (H)	Total daylight reduction using twin-column dovetail (432-256)
100 N	879-064	M6 x 1	70 (2.7)	51 (2)	13 (0.5)	64 (2.5)	154 (6)
200 N	879-065	M6 x 1	70 (2.7)	51 (2)	13 (0.5)	64 (2.5)	154 (6)
500 N	879-066	M6 x 1	82 (3.2)	51 (2)	19 (0.7)	76 (2.9)	166 (6.5)
1000 N	879-067	M10 x 1.5	82 (3.2)	51 (2)	19 (0.7)	76 (2.9)	166 (6.5)
2500 N	879-008	M12 x 1.75	82 (3.2)	51 (2)	25 (1)	76 (2.9)	166 (6.5)
5000 N	879-024	M12 x 1.75	82 (3.2)	51 (2)	25 (1)	76 (2.9)	166 (6.5)

All measurements are in millimetres and (inches)

\* measured without loadcell or grips

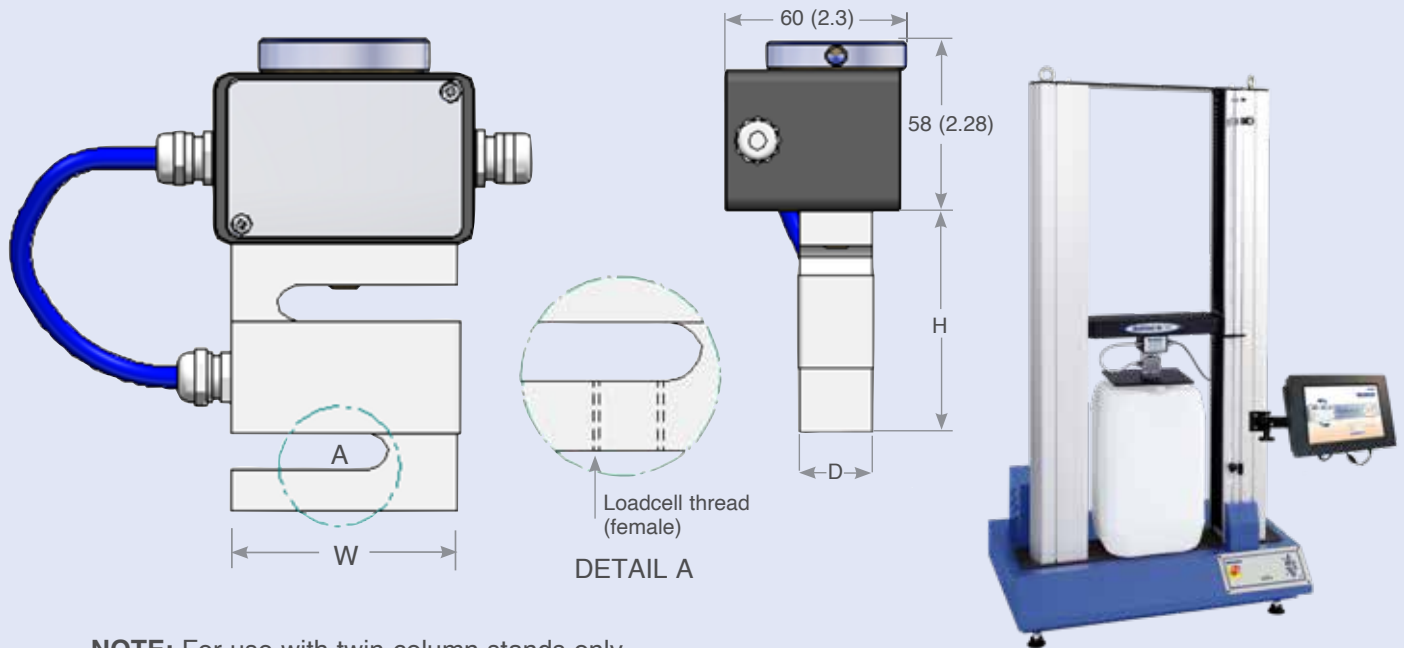


### ILC-S Load Measurement Accuracy

% of full scale (fs)	N
± 0.1% fs	100 N - 2500 N
± 0.2% fs	5000 N

# MultiTest 10-xt & 25-xt

## Intelligent Loadcell ILC-T

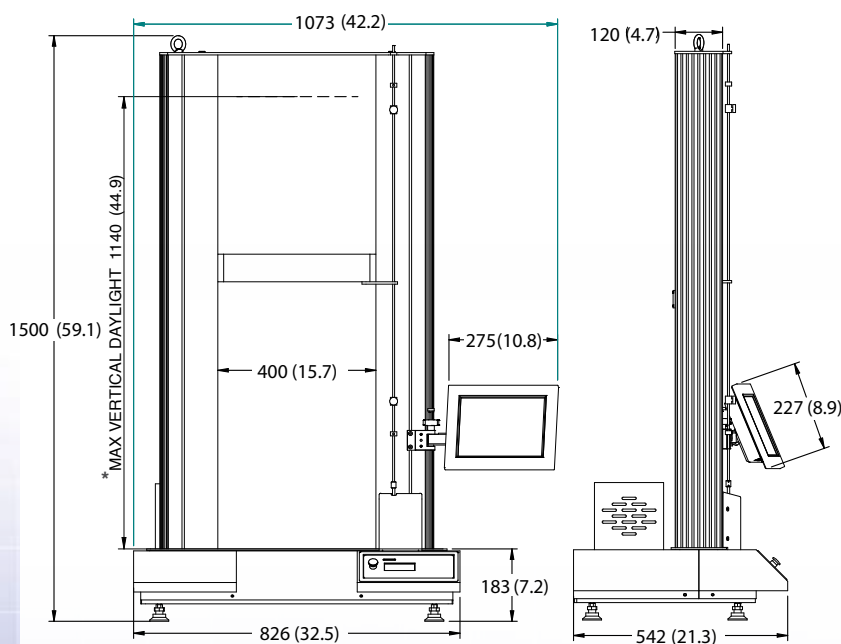


**NOTE:** For use with twin-column stands only

ILC-T capacity	Part No.	Thread	Overall daylight reduction	Loadcell width (W)	Loadcell depth (D)	Loadcell height (H)
10 kN	879-025	M12 x 1.75	134 (5.3)	51 (2)	25 (1)	76 (2.9)
25 kN	879-026	M16 x 2	147 (5.8)	76 (2.9)	38 (1.5)	89 (3.5)

All measurements are in millimetres and (inches)

\* measured without loadcell or grips



## Twin-Column Dovetail Adaptor

**Note:** For use with ILC and ILC-S

Supplied as standard with MultiTest 10-*i* & 25-*i*



Rated capacity	Part No.
5 kN	432 - 256

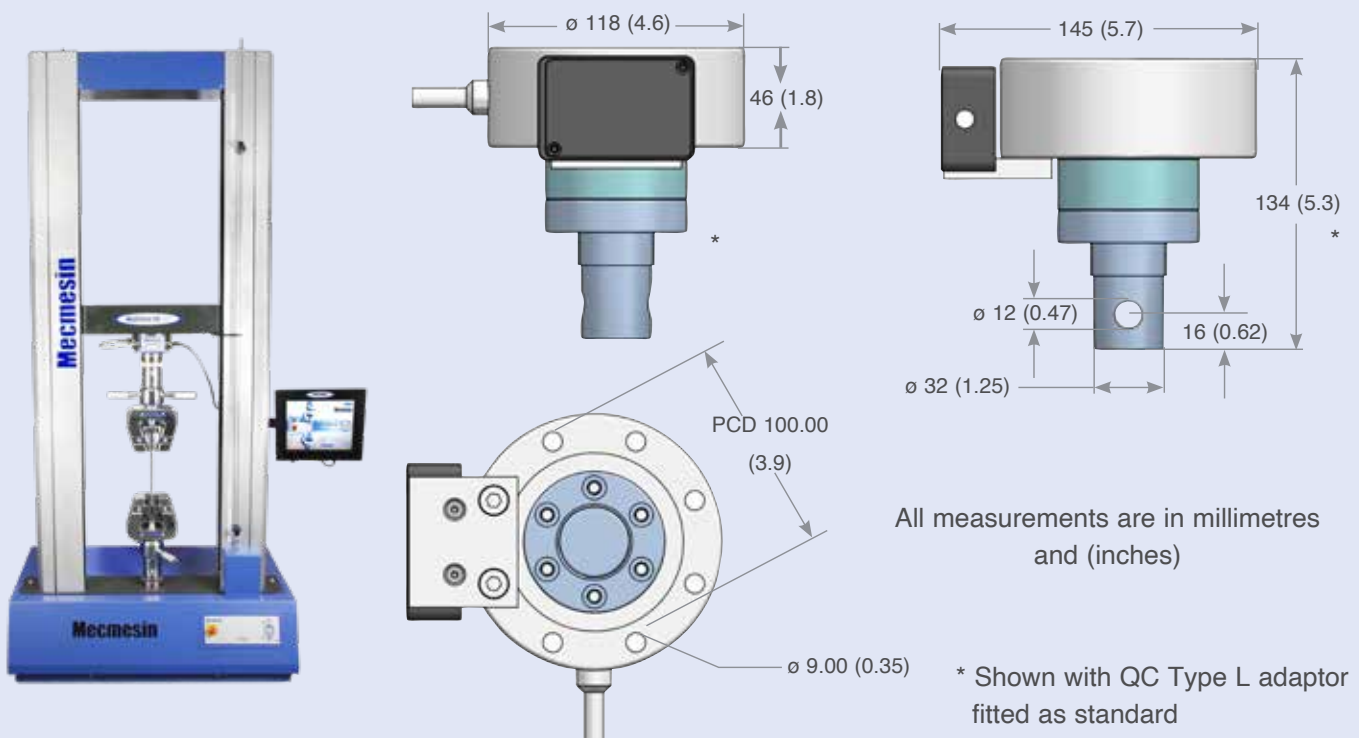
## ILC-T Load Measurement Accuracy

% of full scale (fs)	N
± 0.2% fs	10 kN - 25 kN



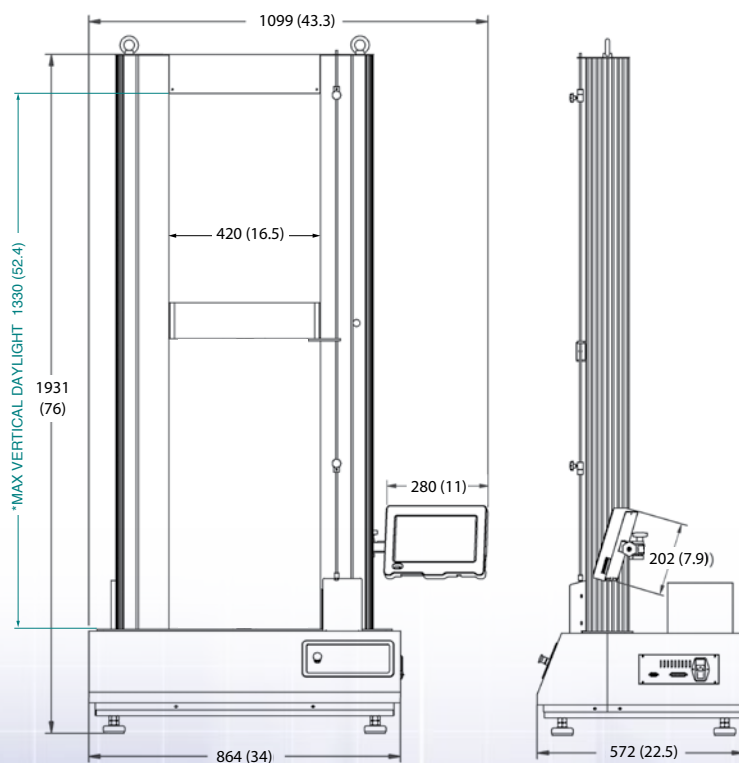
# MultiTest 50-xt

## Intelligent Loadcell ILC-P



ILC-P capacity	Part No.	Thread	Overall daylight reduction	Loadcell diameter (ø)	Loadcell height (H)
20 kN	879-077	M18 x 1.5	134 (5.3)	118 (4.6)	134 (5.3)
50 kN	879-076	M18 x 1.5	134 (5.3)	118 (4.6)	134 (5.3)

All measurements are in millimetres and (inches)  
 \* measured without loadcell or grips



**Note:** Adaptors are supplied to allow fitting of additional ILC and ILC-S / T loadcells to ILC-P loadcells or directly to moving crosshead.

### Twin-Column Dovetail Adaptor

**NOTE:** For use with ILC and ILC-S loadcells.  
 Supplied as standard with MultiTest 50-xt



Rated capacity	Part No.
5 kN	432 - 256

### ILC-P Load Measurement Accuracy

% of full scale (fs)	N
± 0.2% fs	20 kN - 50 kN

# Specifications

MultiTest-xt		0.5	1	2.5	5	10	25	50	
<b>TEST FRAME</b>									
Rated capacity	N	500	1000	2500	5000	10000	25000	50000	
	kgf	50	100	250	500	1000	2500	5000	
	lbf	110	220	550	1100	2200	5500	11000	
Number of ballscrews		1	1	1	1	2	2	2	
Speed range	mm/min	1 - 1000	1 - 1000	1 - 1000*	1 - 500	1 - 1000	1 - 1000**	1 - 400***	
	in/min	(0.04 - 40)	(0.04 - 40)	(0.04 - 40)	(0.04 - 20)	(0.04 - 40)	(0.04 - 40)	(0.04 - 15)	
Crosshead speed accuracy		±0.2% of indicated speed							
Distance between columns		-	-	-	-	400 mm (15.7")	400 mm (15.7")	420 mm (16.5")	
Throat depth†		67 mm (2.6")	67 mm (2.6")	67 mm (2.6")	95 mm (3.7")	-	-	-	
Vertical daylight ††		1267 mm (49.9")	1067 mm (42")	588 mm (23.1")	710 mm (28.0")	1140 mm (44.9")	1140 mm (44.9")	1330 mm (52.4")	
Height		1616 mm (64")	1416 mm (56")	941 mm (37")	1082 mm (42.6")	1500 mm (59.1")	1500 mm (59.1")	1931 mm (76")	
Width (test frame only)		290 mm (11.4")	290 mm (11.4")	290 mm (11.4")	328 mm (12.9")	826 mm (32.5")	826 mm (32.5")	864 mm (34")	
Max width (with console fitted)		546 mm (21.5")	546 mm (21.5")	546 mm (21.5")	615 mm (24.2")	1073 mm (42.2")	1073 mm (42.2")	1099 mm (43.3")	
Depth		414 mm (16.3")	414 mm (16.3")	414 mm (16.3")	526 mm (20.7")	542 mm (21.3")	542 mm (21.3")	572 mm (22.5")	
Weight		36 kg (79 lbs)	32.5 kg (72 lbs)	29 kg (64 lbs)	43 kg (95 lbs)	145 kg (320 lbs)	145 kg (320 lbs)	290 kg (639 lbs)	
Max. power requirement		120 watts	200 watts	250 watts	150 watts	450 watts	450 watts	450 watts	
Voltage		230 V AC 50 Hz or 110 V AC 60 Hz							
<b>LOAD MEASUREMENT</b>									
Available loadcell ranges	N	2 to 50,000 (14 models)							
	kgf	0.2 to 5,000 (14 models)							
	lbf	0.45 to 11,000 (14 models)							
Loadcell measurement accuracy		±0.1% of full scale for loadcells from 2 N to 2.5 kN ±0.2% of full scale for loadcells from 5 kN to 50 kN							
Loadcell measurement resolution		1:6500							
<b>DISPLACEMENT</b>									
Crosshead travel††		1200 mm (47.3")	1000 mm (39.4")	500 mm (19.7")	590 mm (23.2")	950 mm (37.4")	950 mm (37.4")	1100 mm (43.3")	
Positional accuracy per 300 mm (11.81") of travel		±130 µm (±0.005")				±100 µm (±0.004")			
Displayed resolution		±0.01 mm (±0.0004")							

\* 2.5 kN - recommended maximum speed = 750 mm/min (30in/min) above 2 kN

\*\* 25 kN - recommended maximum speed = 500 mm/min (20in/min) above 10 kN

\*\*\* 50 kN - recommended maximum speed = 250 mm/min (10in/min) above 25 kN

\*\*\*\* As the device is used in varying environmental conditions, the uncertainty of measurement could be as much as 0.1% of full scale.

† measured on centre line of loadcell †† measured without loadcell or grips

**Note:** See Technical Datasheet 431-390 for dimension drawings

\*\*\*\*\* Machine wear can be expected over time and may potentially adversely affect both speed and displacement measurement. Machine wear is dependent on factors such as the frequency of usage, harsh operating environments, and the types of test performed (e.g., sudden breaks of stiff materials may cause energy recoil which affects mechanical parts etc.). A full overhaul of the test frame may be required to bring the test system back to its original manufacturer's specification.

## Common Specifications

Operating temperature	10C - 35C (50F - 95F)
Humidity range	Normal industry and laboratory conditions
Sampling rate (Hz)	Selectable from 1000, 500, 100, 50, 10
Compensation for system movement	Yes
Loadholding	Yes
Digital display of Load/Position/Speed	Yes
Output of test results to PC/Printer/Datalogger	Yes, via USB/Network Ports or Wireless Network RS232 via USB/Network converter in ASCII Format
Communication with PLC/Digital Control Interface	Yes, via programmable digital ports , 6 Inputs + 6 Outputs

## Options

Column gaiter  
Safety guard

*available upon request*

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