

Item No	Procurement of Equipment for Civil Engineering Lab (IUL)475/475/2023/239	
1	ADR Touch Control PRO 2000 Auto BS EN Compression Machine - 1 NOS	
	Voltage Supply	220-240 V 50 Hz
	Force Capacity, kN	2000
	Maximum Ram Travel mm	50
	Weight, kg	892
	Capacity	2000 kN
	Cubes (Concrete)	Up to 200 mm
	Cylinders (Concrete)	Up to 160 x 320 mm
	Blocks	n/a
	TFV and ACV	Yes
	Voltage Supply	220-240 V 50 Hz 1 Ph
	Frame Type	Welded
	Max vert. Clearance	340 (360 without 20 mm Ram Spacer)
	Max hor. Clearance	320 mm
	Platen Sizes	Lower , Upper 222 mm
	Overall Dimensions	450 x 780 x 1225 mm
	Additional	Accessories to connect ELE compression machines to the flexural/transverse frames
Note:	Equivalent to or above required specification	
2	100kN Flexural (Beams) Frame - 1 NOS	
	Description	100kN Flexural (Beams) Frame
	Weight, kg	159
	Dimensions length x width x height, mm	380 x 505 x 845
	Maximum Vertical Clearance mm	164 mm
	Maximum Ram Travel mm	75 mm
	Accessories	Flexural Fitting Kit (ADR) Used for Connecting Flexural Frames to ADR Compression Machines.
	Note:	Equivalent to or above required specification
3	Automatic Vicat - 1 NOS	
	Description	Automatic Vicat Apparatus (includes Needle Sets and Moulds for EN and ASTM)
	Power Supply	220 - 240 V AC, 50 - 60 Hz, 1 ph
	ASTM C187	Yes
	ASTM C191	Yes
	With Accessories	ASTM Vicat Mould 38-2660
		EN Vicat Mould 38-23000
		Mould Tank 38-2015/15
		Needle Cleaning Device 38-2015/12
	Vicat Mould 38-2200	

	Note:	Equivalent to or above required specification
4	CBR Testing Machine - 1 NOS	
	Description	CBR-Test 50 Machine
	CBR Penetration	Yes
	Voltage Supply	220-240 V 50 Hz
	Power Supply	220 V AC, 50 Hz, 1 ph
	BS 1377	Yes
	BS 1924	Yes
	EN 13286-47	Yes
	ASTM D1883	Yes
	AASHTO T193	Yes
	Specification	
	Dimensions (l x w x h)	550 x 400 x 1220 mm
	Max vertical clearance	800 mm
	Horizontal clearance	255 mm
	Platen diameter	133 mm
	Platen travel	105 mm
	Weight kg	80
Note:	Equivalent to or above required specification	
5	Universal Testing Machine, automatic, 500 kN tension / 1000 kN compression - 1 NOS	
	Load capacity in tension (kN)	500
	Load capacity in compression (kN)	1000
	Max.vertical clearance with compression test accessory (mm)	768
	Max. distance between grips, excluding piston travel (mm)	268
	Distance between columns (mm)	305
	Max. ram travel (mm)	100
	Resolution digital display (kN-mm)	0.01
	Load measurement accuracy (starting from the first 10% of load range)	+/-1 %
	Strain measurement accuracy (mm)	0.01
	Overall dimensions approx. (mm)	1660 x 800 x 500
	Weight (kg)	535
	Power supply	220-240 V 50-60 Hz, 1 ph
Note:	Equivalent to or above required specification	
6	Pulse Echo Concrete Testertrasonic Pulse Velocity - 1 NOS	
	Description	Pulse Echo Concrete Tester
	Measuring range	Up to 1 m depending on concrete quality
	Bandwidth	20 to 500 kHz
	Technology	Single channel ultrasonic pulse-echo
	Measuring resolution	0.1 us
	Pulse voltage UPE	± 50 to ± 200 V
	Receiver gain	1 to 10,000x (0 to 80 dB)
	Nominal transducer frequency	24-500 kHz
Pulse shape	Square wave	

	Number of channels	1
	Note:	Equivalent to or above required specification
7	Ultrasonic Concrete Tester	
	Description	Pundit Lab Ultrasonic Concrete Tester
	Dimensions, l x w x h, ”	12x18x6
	Measuring range	Up to 15 m depending on concrete quality
	Bandwidth	20 to 500 kHz
	Technology	Ultrasonic pulse velocity
	Measuring resolution	0.1 us
	Pulse voltage UPV	125 to 500 V
	Receiver gain	1x, 10x, 100x, auto
	Pulse shape	Square wave
	Nominal transducer frequency	24-500 kHz
	Number of channels	1
	Note:	Equivalent to or above required specification
8	Standard Concrete Test Hammer - 2 NOS	
	Description	Standard Concrete Test Hammer
	Accuracy, %	15
	ASTM C805	Yes
	Testing Standard	EN 12504-2
	<u>Specifications</u>	
	Body	Includes indicator scale, calibration curves.
	Calibration Curves	Rebound number vs. compressive strength.
	Rubbing Stone	Prepares test surface.
	Accuracy	Within 15 %.
	Carrying Case	Plastic.
	Weight	Net 3 lbs. (1.4 kg).
	With Testing Anvil	
	Description	Testing Anvil
	Weight, lbs	37.06
ASTM C805	Yes	
Note:	Equivalent to or above required specification	
9	Digital Point-Load Test Apparatus - 1 NOS	
	Capacity	55 kN
	Maximum sample size	101.6 mm
	Load range	0 to 55 kN x 0.001 kN
	Weight	25 kg
Note:	Equivalent to or above required specification	
10	Compaction Permeameter - 1 NOS	
	Mould	Machined seamless steel tubing, plated
	Capacity	101.6 x 116.4 mm (inside dia x h) 1/30 ft3
	Collar	50.8 mm high, machined
	Top	Overflow valve assembly and water connection
	Base	Cast aluminum, with inlet/outlet fitting

	Porous stone	(4") 101.6 x 12.7 mm (diameter x thickness)
	Weights	5.4 kg
	Note:	Equivalent to or above required specification
11	Demolition Jack Hammer - 2 NOS	
	<u>Specification</u>	2200W Demolition Industrial Electric Hammer Rotary Wood Metal Concrete Breaker High Impact Powerful with accessories (if any)
	Note:	Hilti Equivalent or above