



TRADEMARK REGISTERED. 3868314

**SERVO FULLY AUTOMATIC, CONTROLLED THROUGH
TOUCH PANEL BASED ELECTRONIC DISPLAY SYSTEM
AS WELL COMPUTER THROUGH SOFTWARE.**

(Confirming IS: 516 and IS 14858)

**Model No: VSLIC-C288 | MAKE: VERTEX
CAPACITY: 3000kN (300TON)**

WWW.VERTEXINSTRUMENTS.COM

M/S VERTEX SCIENTIFIC & LAB INSTRUMENTS CO.

NABL
APPROVED
MACHINE

CAPACITY
3000kN
(300Ton)
SERVO

***FAST IS FINE BUT
ACCURACY IS EVERYTHING***



IS:14858 (2000) (Reaffirmed 2005)
(Confirming IS: 516 and IS 14858)

VERTEX PRESENT

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(FULLY AUTOMATIC PACE RATE CONTROLLED) (Confirming IS: 516 and IS 14858)

Features.

- ✓ Capacity Range: 3000kN (300Ton)
- ✓ Automatic Pace Rate Control
- ✓ Pace Rate Range Controller: 0.01kN/Sec to 20kN/Sec
- ✓ Pace Rate Accuracy/Least Count : ± 0.01 KN/SEC
- ✓ Oil Release Manual Operating after Sample Break
- ✓ Servo Drive & Servo Motor | Make: Delta
- ✓ German Make Pressure Sensor 600Bar
- ✓ Computerized DAQ Software System.
- ✓ Automatic Stress determination & display
- ✓ Peak Stress Calculation based on sample type & shape.
- ✓ Peak Load, Peak Stress, Unique record number is displayed.
- ✓ Real Time Graph (Load vs Time, Stress vs Time & Load vs Stress)
- ✓ Display Results: Break Load (kN) + Stress Load (N/MM²)
- ✓ Simple Calibration Factor for Compression for Cube and Flexure.
- ✓ Load Rate: 15 ± 3 N/mm²/min
- ✓ Noise Level: < 65db
- ✓ EDI has provision to configure more than one mode.
- ✓ Data Downloading through USB in ASCII format.
- ✓ Store records can be Viewed & Print through System.
- ✓ Overload Safety Protection.
- ✓ Password Protection for System & Calibration setup.
- ✓ 2% Overload facility to calibrate the machine up to full capacity.
- ✓ Test Record storing with Unique Nos upto 1000 Nos (Min)
- ✓ The Safety door should have auto closure feature to cut off Test Load when door is accidently in opened position.
- ✓ Should have min 10 points calibration.
- ✓ Should have password protected Calibration System

VERTEX PRESENT

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(MEETS AND EXCEEDS SPECIFICATION (Confirming IS: 516 and IS 14858))

Technical Specification

- ✓ Loading Frame Ram Dia: 280mm
- ✓ 7" LCD touch screen
- ✓ 10 point calibration facility with auto/manual pace rate regulator
- ✓ On board printing facility
- ✓ Overload cut off facility
- ✓ Piston over lift cut off facility
- ✓ Compact & sturdy design load frame to be base mount
- ✓ Pump clamped to frame
- ✓ Matt finished PU paint in dark color
- ✓ Safety lockable door
- ✓ Platen hardness 55HRC grinded to the finish of 0.02 mm
- ✓ Automatic pace rate control from 0.01kN/sec to 20kN/sec
- ✓ Real time graph for Load vs Time
- ✓ Emergency stop push button
- ✓ Safety for over lift of jack with limit switch cut of facility
- ✓ USB pen drive port for data saving

VERTEX PRESENT

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(MEETS AND EXCEEDS SPECIFICATION (Confirming IS: 516 and IS 14858))

TECHNICAL SPECIFICATIONS	UNIT	VSLIC-C489ST
Capacity	kN	3000
Electronic Display		PLC BASED
Ram Diameter	MM	280
Ram Travel	MM	50
Pressure Gauge Diameter	MM	Nil
Pressure Gauge	kN	Nil
Least Count	kN	0.01
Maximum Pressure	Kg/cm	410
Platen Diameter	MM	320
Horizontal Clearance	MM	400
Vertical Clearance	MM	440

TECHNICAL SPECIFICATIONS	UNIT	VSLIC-C489ST
Height of Load Frame	MM	890
Weight of Load Frame	Kg.	580
Specimen Size (can be tested)		
Cube	MM	100, 150, 200
Cylindrical	MM	100 x 200, 150 x 300
Electrical Version		
Motor	H.P.	230 V, 1 Ph, 50 Hz
R.P.M.		1440
Electronic Spped Drive		Yes
Height of Pumping Unit	MM	890
Weight of Complete Unit	Kg.	980

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(YOU CAN TEST PERFORM AS PER BELOW SAMPLES)

S.No.	Sample Test	Area (mm ²)	IS Code	Load Rate	Pace Load Rate (kN/Sec)
1.	Concrete Cube	22500	IS: 516	14N/mm ² /min.	5.3
2.	Concrete Cube	1962	IS: 516 (P-4)	14N/mm ² /min.	0.5
3.	Concrete Flexural Strength	90000	IS:516 (P-1)	4kN/min	0.07
4.	Concrete Split Tensile Strength	17662	IS:516 (P-1)	1.2 TO 2.4 n/MM ² /MIN	0.4
5.	Brick	25300	IS:3495	7N/mm ² /min	3
6.	Paver Block Compressive Strength	20000	IS:15658	15N/mm ² /min	4
7.	Paver Block Tensile Strength	20000	IS:15658	0.05 N/mm ² /Sec	1

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(YOU CAN TEST PERFORM AS PER BELOW SAMPLES)

S.No.	Sample Test	Area (mm ²)	IS Code	Load Rate	Pace Load Rate (kN/Sec)
8.	Paver Block Flexural Strength	15000	IS: 51658	15N/mm ² /min.	4
9.	Cement Cube	4984	IS: 4031 (P-6)	35N/mm ² /min.	2.9
10.	Fly ash and Micro Silica Cube	2500	IS: 1727	14N/mm ² /min.	0.6
11.	Aggregate Crushing Value	-	IS:2386 (P-4)	40kN/min	0.7
12.	Stone Compressive Strength	2500	IS:1121 (P-1)	14N/mm ² /min	0.6
13.	Stone Flexural Strength	2500	IS:1121 (P-2)	1.8kN/min	0.03
14.	AAC Block	22500	IS:6441 (P-1)	0.5N/mm ² /min	0.2

ALONG WITH CTM WE PROVIDE BELOW COMPUTER SYSTEM

SERVO CONTROLLED COMPRESSION TESTING MACHINE

(MEETS AND EXCEEDS SPECIFICATION (Confirming IS: 516 and IS 14858))



Technical Specification

- Desktop (Intel Core i7-3470
3.2Ghz/4 GB DDR3 RAM/320 GB
Hard Disk/6USB PORTS/ WiFi
Ready
- APC Back-UPS BX600C-IN 600VA
- Wireless Keyboard & Mouse
- Windows 11Pro License
- Laserjet Printer Make: HP Model:
HP Laserjet P1108
- 18INCH Computer Screen Make:
LG/Acer/APC.
- With 3 Years Warranty

MACHINE OPERATION SCREEN

COMPRESSION TESTING MACHINE

AUTOMATIC PACE RATE CONTROL
COMPRESSION TESTING MACHINE
CAPACITY: 2000kN(200ton)



VERTEX[®]
SCIENTIFIC & LAB INSTRUMENTS CO.

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Auto
Compression Test

Manual
Compression Test

Machine
Settings

AUTO COMPRESSION TEST

Set Pace Rate
[kN/Sec.]

Area
[mm²]

10.00

0.00

Real Time

At Peak Point

Load [kN]

30.00

0.3

Stress [N/mm²]

0.00

0.00

Time [Sec.]

0.0

Pace Rate [kN/Sec.]

0.00



Start

Reset



MANUAL COMPRESSION TEST

Speed [%]

100.00

Area [mm²]

0.00

Real Time

At Peak Point

Load [kN]

30.00

0.3

Stress [N/mm²]

0.00

0.00



Start

Reset



COMPRESSION LOAD SETTING

ADC Load

2

Load [kN]

0.3

+/-

Tare ADC Load

1

Load Capacity [kN]

3000

Speed [%]

Load Least Counts

0.00100

100.00

Load Factor

2.953530

Auto Stop Min. Load [kN]

Pace Rate Min. Load [kN]

5.00

100.00

Brake Load [%]

80.0



Start

Reset



DAQ (DATA ACQUISITION SOFTWARE)

REF. NO : VS/SWCTM/01

DATE: 20/JUNE/2022

CERTIFICATE
OF SOFTWARE VALIDATION

SOFTWARE VALIDATION SOLUTIONS PACKAGE (VSP)
THIS IS CERTIFY THAT

VERTEX PROVIDE SOFTWARE SERVICE FOR
COMPRESSION TESTING MACHINE, RANGE: 2000KN

NEXT LICENSE UPDATE : 19/JUNE/2025

LICENSE VERSION: VS/CTM/1.01

FOR VERTEX SCIENTIFIC & LAB INSTRUMENTS CO.

(AUTHORISED SIGNATORY)

Test Graph Report Settings Exit

Load[kN]:196.11

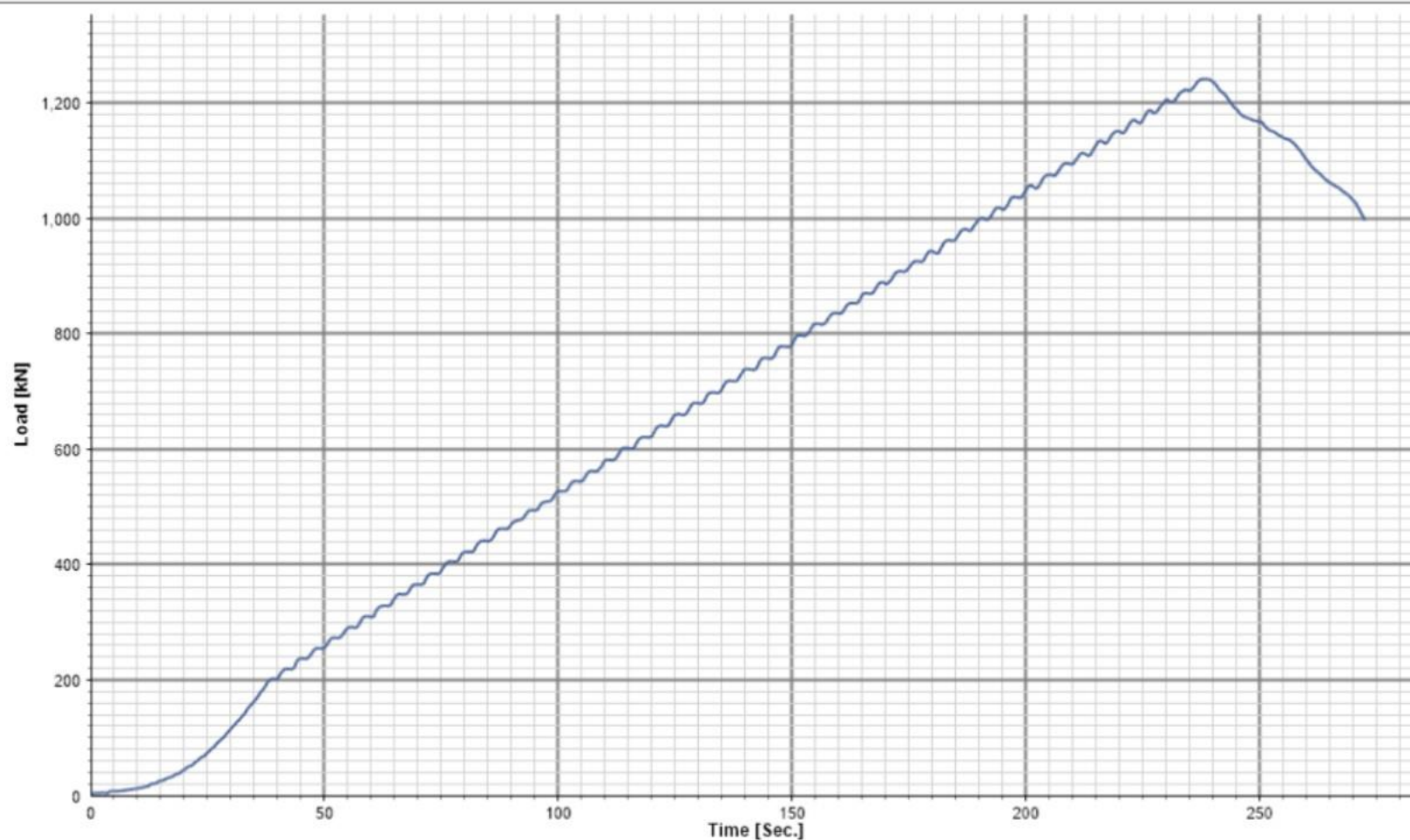
Stress [N/mm²]:8.72

Pace Rate [kN/Sec.]:5.3

Time : 13:10

1,243.7**55.28****5.24****272.6**

Load vs Time Stress vs Time Load vs Stress



Test No. : 1
Buyer Name : HARISH SIR
Test Report No. : H1
Test Standard : IS516
Sample Name : CUBE
Test Date : 01-06-2022
Test Time : 11:33
Temperature : 28°C
Humidity : 45%
Type of Test : Compression
Section : Flat
Width : 150.00 mm
Length : 150.00 mm
Area : 22,500.00 mm²
Gauge Length : 0.000 mm
Maximum Load : 1,243.73 kN
Maximum Stress : 55.28 N/mm²
Set Pace Rate : 5.25 kN/Sec.
Avg. Pace Rate : 5.24 kN/Sec.

Communication Offline

Reset

Start

Stop

Release

Load[kN]:0.00

Stress [N/mm²]:0.00

Pace Rate [kN/Sec.]:0.0

Time : 13:52

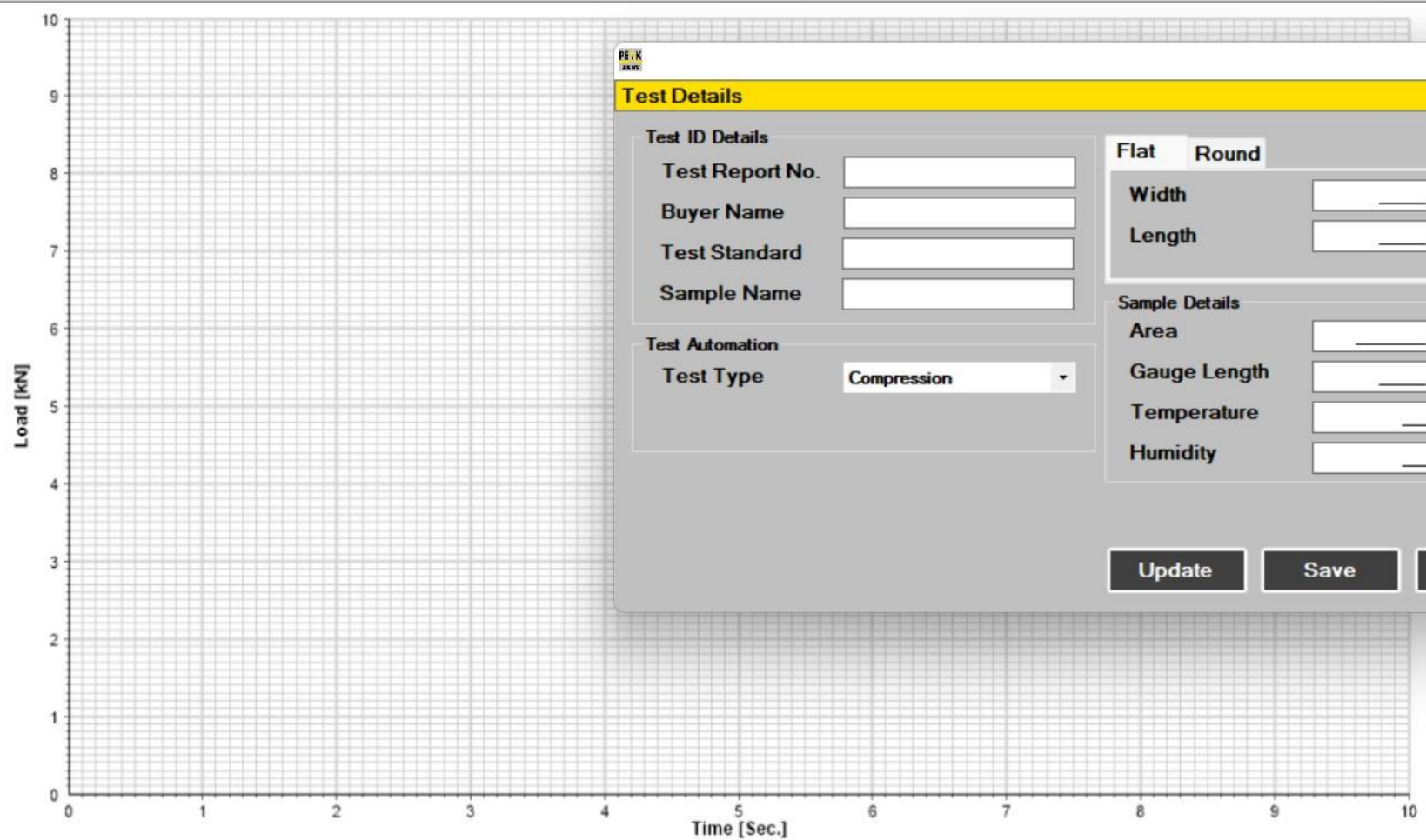
0.00

0.00

0.00

0.0

Load vs Time Stress vs Time Load vs Stress



Test No. : 3
 Buyer Name : None
 Test Report No. : None
 Standard : None
 Name : None
 e : None
 e : None
 ure : 0°C
 : 0%
 Test : None
 : None
 : 0.00 mm
 : 0.00 mm
 : 0.00 mm²
 ngth : 0.000 mm
 Load : 0.00 kN
 Stress : 0.00 N/mm²
 Rate : 0.00 kN/Sec.
 e Rate : 0.00 kN/Sec.

Test Details

Test ID Details

Test Report No.

Buyer Name

Test Standard

Sample Name

Test Automation

Test Type **Compression**

Flat Round

Width mm

Length mm

Sample Details

Area mm²

Gauge Length mm

Temperature °C

Humidity %

Update Save Cancel

Communication Offline

Reset Start Stop Release

Load[kN]:0.00

Stress [N/mm²]:0.00

Pace Rate [kN/Sec.]:0.0

Time : 13:55

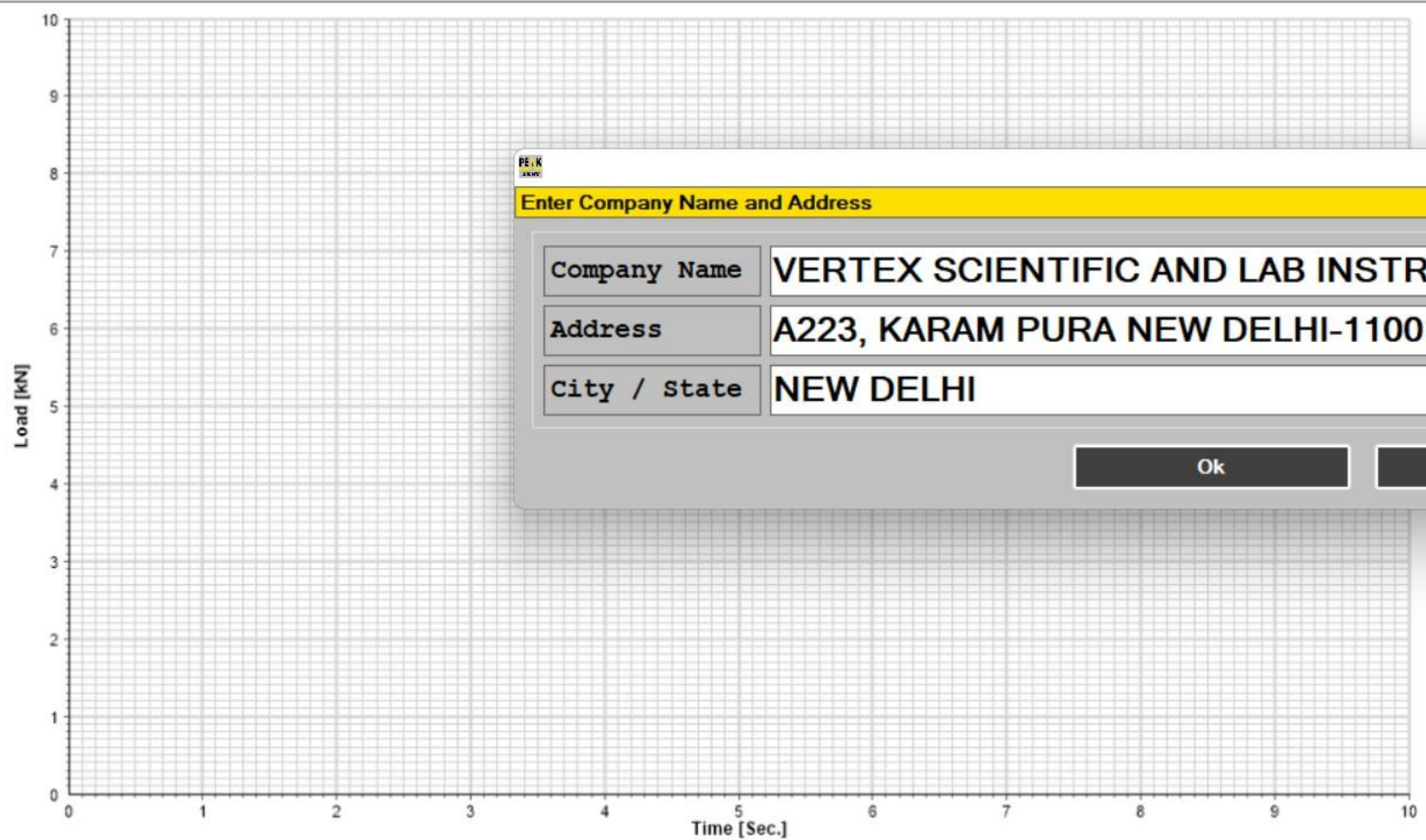
0.00

0.00

0.00

0.0

Load vs Time Stress vs Time Load vs Stress



Test No. : 2
Buyer Name : HARISH SIR
Test Report No. : H1
Test Standard : IS516
Sample Name : CUBE
Test Date : None
Test Time : None

: 28°C
: 45%
: Compression
: Flat
: 150.00 mm
: 150.00 mm
: 22,500.00 mm²
: 0.000 mm
: 0.00 kN
: 0.00 N/mm²
: 0.00 kN/Sec.
: 0.00 kN/Sec.

PE.K
LAKKI

Enter Company Name and Address

Company Name	VERTEX SCIENTIFIC AND LAB INSTRUMENTS CO
Address	A223, KARAM PURA NEW DELHI-110015
City / State	NEW DELHI

Ok Cancel

Communication Offline

Reset Start Stop Release



Load[kN]:0.00

Stress [N/mm²]:0.00

Pace Rate [kN/Sec.]:0.0

Time : 13:56

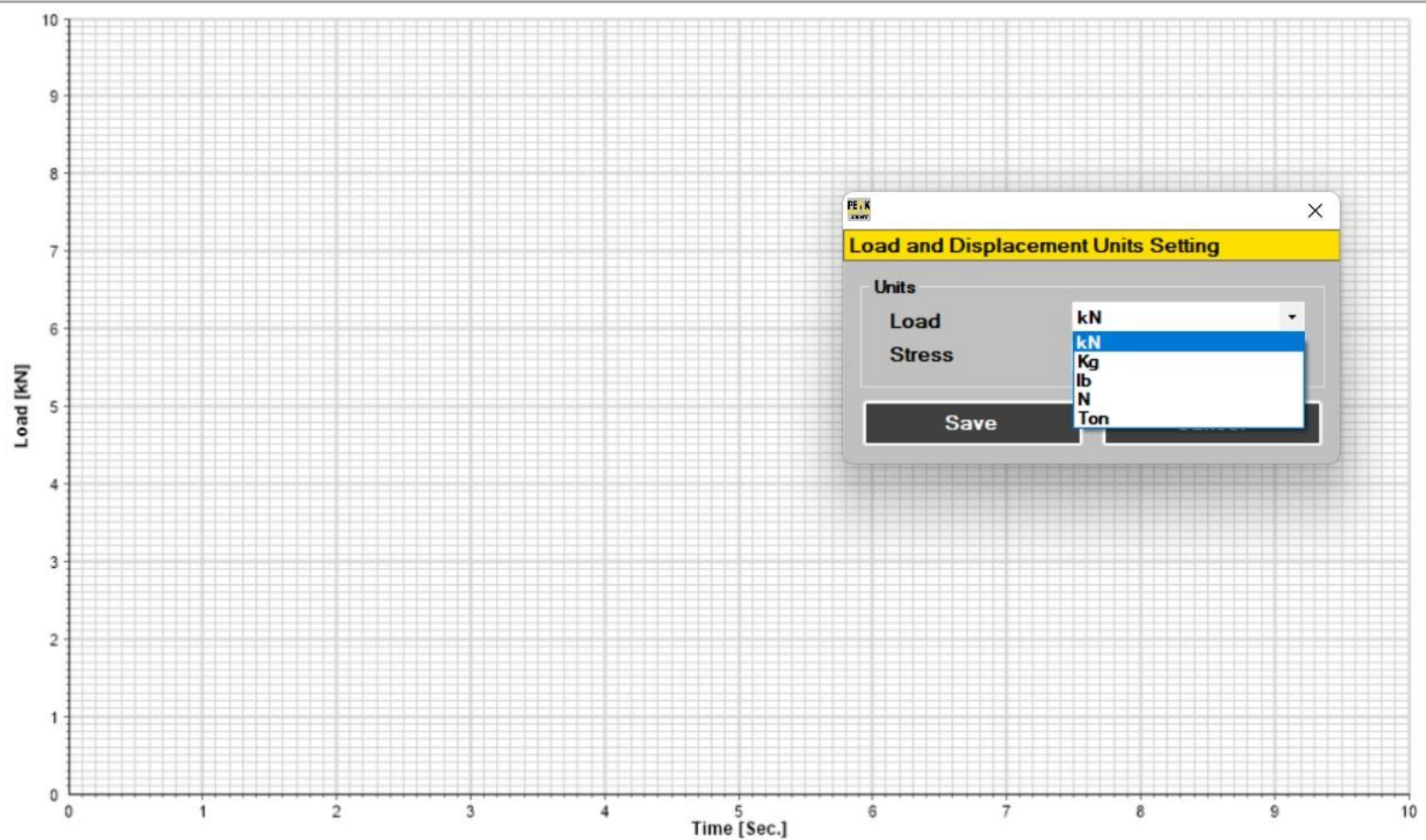
0.00

0.00

0.00

0.0

Load vs Time Stress vs Time Load vs Stress



PE,K

Load and Displacement Units Setting

Units

Load

Stress

Save

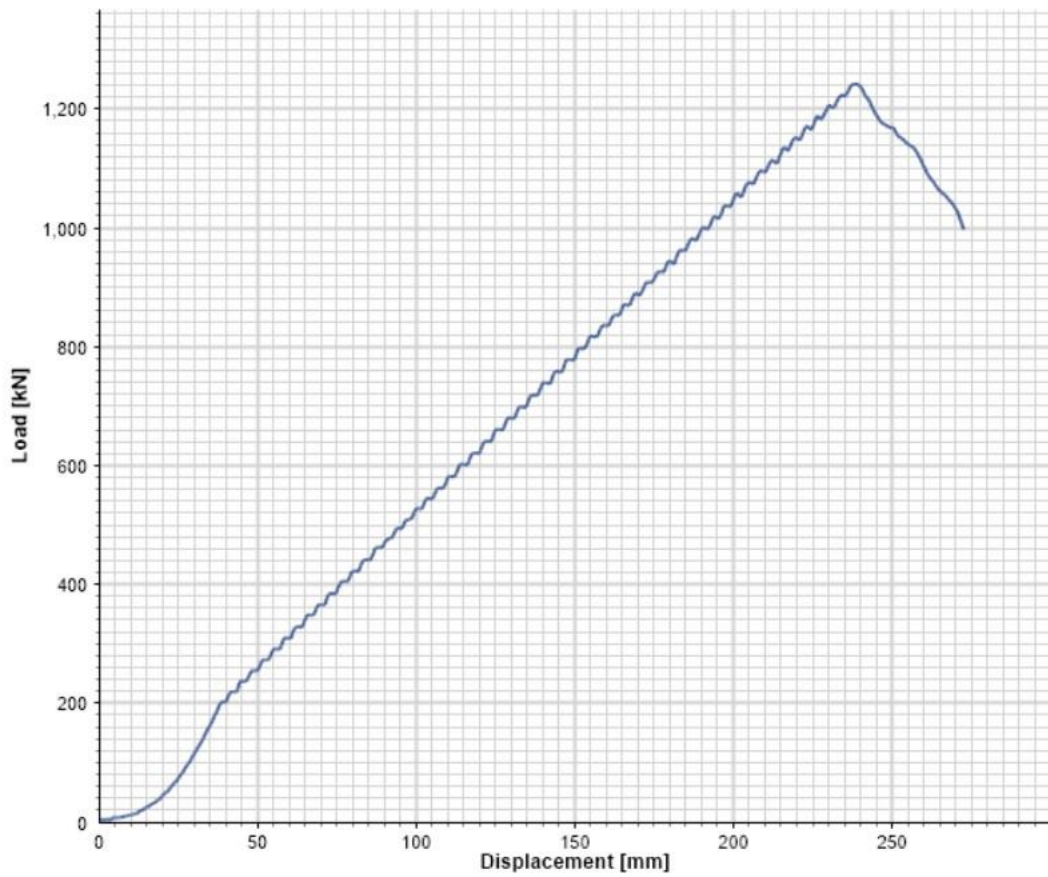
Test No. : 2
 Buyer Name : HARISH SIR
 Test Report No. : H1
 Test Standard : IS516
 Sample Name : CUBE
 Test Date : None
 Test Time : None
 Temperature : 28°C
 Humidity : 45%
 Type of Test : Compression
 Section : Flat
 Width : 150.00 mm
 Length : 150.00 mm
 Area : 22,500.00 mm²
 Gauge Length : 0.000 mm
 Maximum Load : 0.00 kN
 Maximum Stress : 0.00 N/mm²
 Set Pace Rate : 0.00 kN/Sec.
 Avg. Pace Rate : 0.00 kN/Sec.

Communication Offline

Reset Start Stop Release

TEST REPORT BY

Load:275.3 | Time:



Test No. : 1
Buyer Name : HARISH SIR
Test Report No. : H1
Test Standard : IS516
Sample Name : CUBE
Test Date : 01-06-2022
Test Time : 11:33
Temperature : 28°C
Humidity : 45%
Type of Test : Compression
Section : Flat
Width : 150.00 mm
Length : 150.00 mm
Area : 22,500.00 mm²
Gauge Length : 0.000 mm
Maximum Load : 1,243.73 kN
Maximum Stress : 55.28 N/mm²
Set Pace Rate : 5.25 kN/Sec.
Avg. Pace Rate : 5.24 kN/Sec.

- Load vs Time
- Stress vs Time
- Load vs Stress
- Grid Line

Print

Cancel

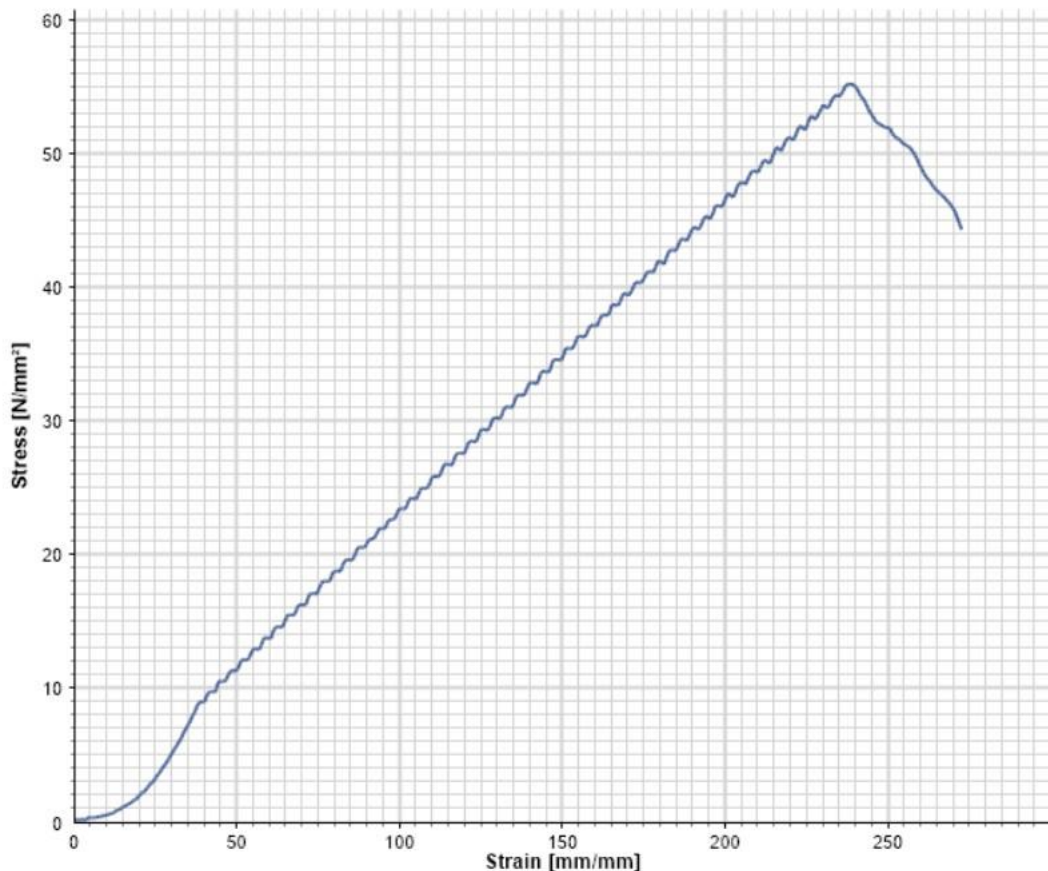
Remarks :

Tested By : Checked/Witnessed By :



TEST REPORT BY VERTEX SCIENTIFIC AND LAB INSTRUMENTS CO.

Load:604.0 | Stress:



[01] —

Test No. : 1
Buyer Name : HARISH SIR
Test Report No. : H1
Test Standard : IS516
Sample Name : CUBE
Test Date : 01-06-2022
Test Time : 11:33
Temperature : 28°C
Humidity : 45%
Type of Test : Compression
Section : Flat
Width : 150.00 mm
Length : 150.00 mm
Area : 22,500.00 mm²
Gauge Length : 0.000 mm
Maximum Load : 1,243.73 kN
Maximum Stress : 55.28 N/mm²
Set Pace Rate : 5.25 kN/Sec.
Avg. Pace Rate : 5.24 kN/Sec.

- Load vs Time
- Stress vs Time
- Load vs Stress
- Grid Line

Print

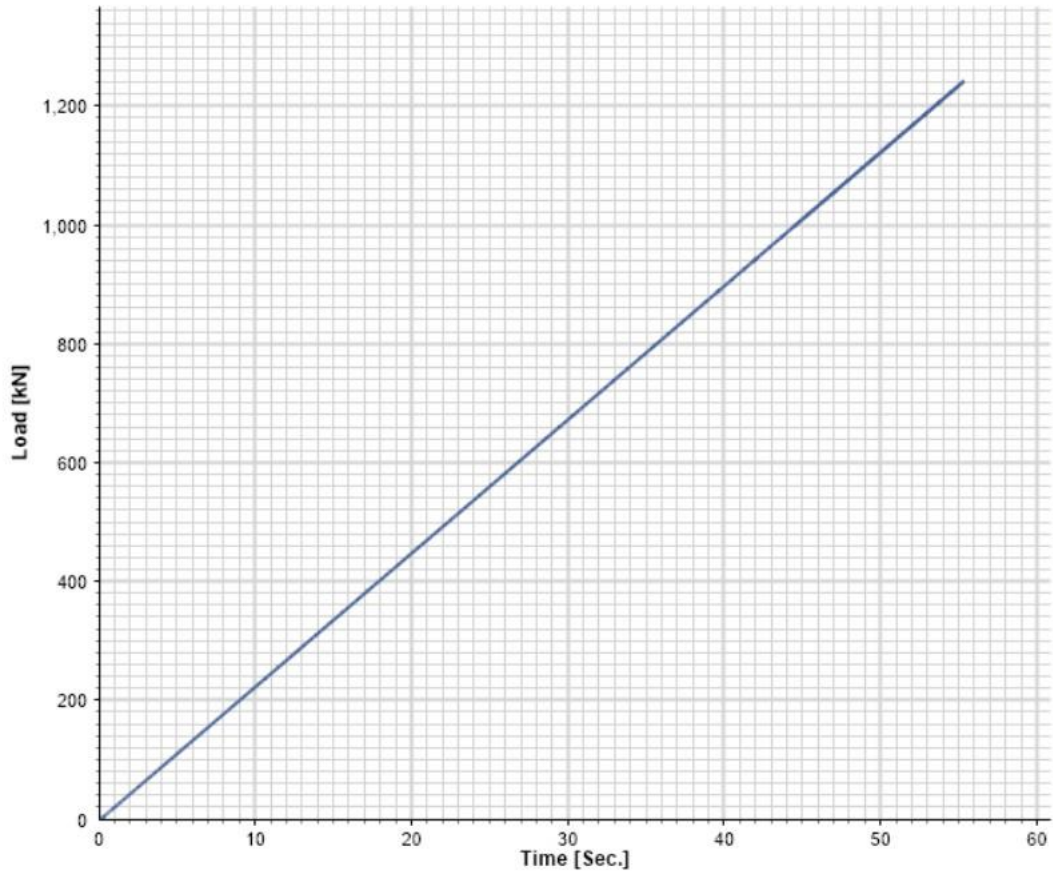
Cancel

Remarks :

Tested By : Checked/Witnessed By :

TEST REPORT BY VERTEX SCIENTIFIC AND LAB INSTRUMENTS CO.

Load:769.7 | Stress:28.8



Test No. : 1
Buyer Name : HARISH SIR
Test Report No. : H1
Test Standard : IS516
Sample Name : CUBE
Test Date : 01-06-2022
Test Time : 11:33
Temperature : 28°C
Humidity : 45%
Type of Test : Compression
Section : Flat
Width : 150.00 mm
Length : 150.00 mm
Area : 22,500.00 mm²
Gauge Length : 0.000 mm
Maximum Load : 1,243.73 kN
Maximum Stress : 55.28 N/mm²
Set Pace Rate : 5.25 kN/Sec.
Avg. Pace Rate : 5.24 kN/Sec.

- Load vs Time
- Stress vs Time
- Load vs Stress
- Grid Line

Print

Cancel

Remarks :

Tested By : Checked/Witnessed By :

Installed Machine Photograph



ITEM NO: 2

Splitting Tensile Attachment for
Compression Testing Machine

Capacity: 200kN

VSLIC-200KN

Splitting Tensile Attachment for Compression Testing Machine

Technical Specification

1. Capacity: 200kN
2. Automatic Pace Rate Control to @ 10kN/min
3. Least Count: ± 0.1 kN



Splitting Tensile Attachment for Compression Testing

Machine Capacity: 200kN TEST SCREEN

AUTO SPLIT TENSILE TEST

Test Number	Set Pace Rate [kN/Sec.]	Area [mm ²]
0	0.00	0.00
	Real Time	At Peak Point
Load [kN]	0.00	0.00
Stress [N/mm ²]	0.00	0.00
Time [Sec.]	0.0	
Pace Rate [kN/Sec.]	0.00	

Separate Calibration Screen for Splitting Test Attachment

SPLIT TENSILE LOAD SETTING				
ADC Load	<input type="text" value="0"/>			
Load [kN]	<input type="text" value="0.00"/>	<input type="button" value="+/-"/>		
Tare ADC Load	<input type="text" value="0"/>			
Load Capacity [kN]	<input type="text" value="0"/>		Speed [%]	
Load Least Counts	<input type="text" value="0.000000"/>		<input type="text" value="0.000"/>	
Load Factor	<input type="text" value="0.0000000"/>		Auto Stop Min. Load [kN]	
Auto Min. Time [Sec.]	<input type="text" value="0.0"/>		<input type="text" value="0.000"/>	
Brake Load [%]	<input type="text" value="0.0"/>			
<input type="button" value="←"/>	<input type="button" value="Start"/>	<input type="button" value="Stop"/>	<input type="button" value="Reset"/>	<input type="button" value="→"/>

ITEM NO: 3

**Flexural Testing Attachment for
Compression Testing Machine**

Capacity: 500kN

VSLIC-1008M



Flexural Test Attachment for Compression Testing Machine

Technical Specification

1. Capacity: 500kN
2. Automatic Pace Rate Control to @ 10kN/min
3. Least Count: ± 0.1 kN
4. Ref. Standard Suitable to test as IS:9399
5. Suitable to test as IS:9399. Used for the determination of modulus of rupture of concrete, that is, 15 x 15 x 70 cm or 10 x 10 x 50 cm beams by third point loading method

AUTO FLAXURAL TEST

Test Number	Set Pace Rate [kN/Sec.]	Area [mm ²]
0	0.00	0.00
	Real Time	At Peak Point
Load [kN]	0.00	0.00
Stress [N/mm ²]	0.00	0.00
Time [Sec.]	0.0	
Pace Rate [kN/Sec.]	0.00	

Separate Calibration Screen for Flexural Test Attachment

FLAXURAL LOAD SETTING

ADC Load	0		
Load [kN]	0.00	+/-	
Tare ADC Load	0		
Load Capacity [kN]	0		Speed [%]
Load Least Counts	0.000000		0.000
Load Factor	0.0000000		Auto Stop Min. Load [kN]
Auto Min. Time [Sec.]	0.0		0.000
Brake Load [%]	0.0		

Navigation: Left Arrow, Start, Stop, Reset, Right Arrow