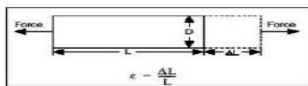




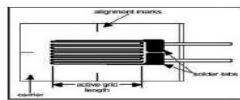
PC BASED STRAIN MEASUREMENT ANALYSIS ON CONCRETE CUBE



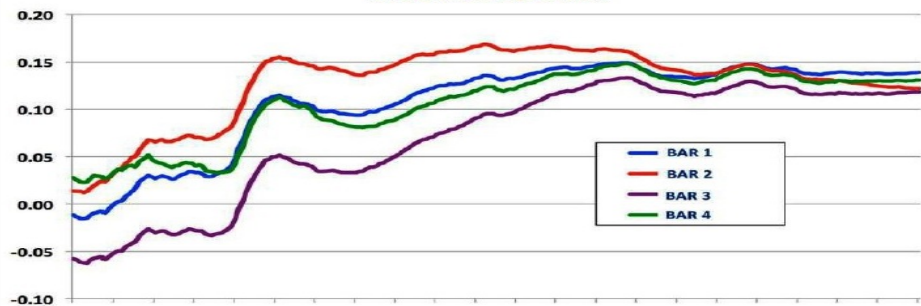
Strain is the amount of deformation of a body due to an applied force. More specifically strain (ϵ) is defined as the fraction change in length.



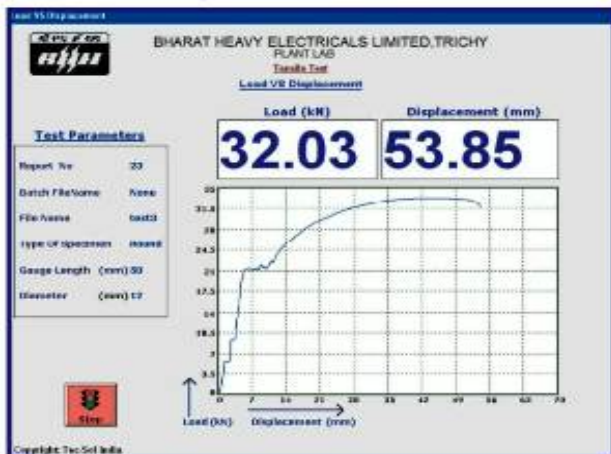
Strain gauge



ON-LINE GRAPH FOR LOAD VS STRAIN, STRAIN VS TIME, MULTIPLE STRAIN.



TEC-SOL INDIA



BHARAT HEAVY ELECTRICALS LIMITED TRICHY					
STRSSS Vs STRAIN REPORT					
Customer :	Dewan Road	Forging No / Sl. No :	1		
PO Number :	KSS/DOP2017438	Grade :	AISI4140		
Reference Number :	FINSISREV D	Real Number :	D-3331		
Reference Standard :	A378	Inspection Agency :	PIL		
Form Number :	PILQA/APP/004				
Report Number :	1				
Date :	1/7/2017				
Test Parameters	Specified Values	Observed Values	Test Parameters	Specified Values	Observed Values
Sample Number :	1	1	Tensile Load :	-- 48	46.6 (KN)
Shape :	A17	A17	Yield Stress :	-- 1400	1402.3 (N/mm²)
Gauge Diameter (mm) :	8.75	8.75	Yield Strength :	-- 1400	1402.3 (N/mm²)
Width (mm) :	8	8	% Elongation (N) :	-- 48	47.26
Thick Ness (mm) :	8	8	% Reduction area (N) :	-- 45	47.26
Gauge Length (mm) :	35	35	Impact Charpy @ (J/Cm²) (RT) :	15	15
Final Length (mm) :	50	50	Hardness (HRC) :	225-261	225-261
Final Diameter (mm) :	8	8	Others :		
Yield Load :	-- 48	44.9 (KN)			
Conclusion :	Set	Sample Location :	Set	Remarks :	Set
Engineer :	G.A.	Customer / Inspection Agency :			

We do strain measurement of concrete structure using strain gauges and DAQ acquisition card along with software and graphical representation with more accuracy in depth. We have two to eight channel systems (as per your requirement).

The Poisson's Ratio ν of a material is defined as the negative ratio of the strain in the transverse direction (perpendicular to the force) to the strain in axial direction (parallel to the force), or $\nu = \epsilon_T / \epsilon$. Poisson's Ratio for steel, for example, ranges from 0.25 to 0.3.

Strain can be positive (tensile) or negative (compressive). Although dimensionless, strain is sometimes expressed in units such as in./in. or mm/mm. In practice, the magnitude of measure strain is very small. therefore, strain is often expressed as micro strain ($\mu\epsilon$), which is $\epsilon \times 10^{-6}$.

UPGRADE AND UPDATE YOUR COMPRESSION TESTING MACHINE

We can also Upgrade your existing old Compression Testing Machine to pace rate control facility (Rate of Loading Speed)

1. Servo controlled Compression Testing Machine.

Example: Precise control of Loading speed of 5000N per Second for a 150mm cube. Accuracy at 1%.As per BIS Standard 1610 it is very essential to test at this speed.



ADVANTAGES

1. In the Strain analysis, you can exactly find out where the deformation starts at first.
2. We need to give 40% of Load for a particular time in a Cyclic method and find out complete characteristics of your Concretes Cubes.
3. You can find the Strain value in percentage.
4. You can also conduct advanced tests like **Poisson ratio** and **Young's Modulus** as per IS 516 standard.
5. You can get Online graphs like Stress versus Strain, Load versus Time, Strain versus Time, Multiple Strain graphs etc.....

Our Other Range of Products

1. Computerized and Servo controlled Universal Testing Machine
2. Environmental Test Chamber
3. Carbonation Chamber
4. Vibratory Shake Table
5. Load Testing Machine for concrete block
6. Actuators
7. NABL Calibration Service
8. Soil Testing software

Mfd by
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