
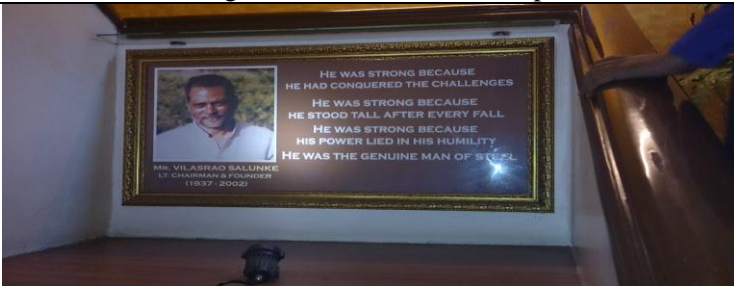




**A Report on Industrial Visit taken to Accurate Gauges, Hadapsar (Industrial Estate Area)-Pune**

Date of an industrial visit	17/09/2014	
Day of an industrial visit	Wednesday	
Time of the visit	10am to 5pm	
Total student strength visited	160 Students	
Class and year	TE-Mechanical ('C' and 'D' Division)	
Name of the faculty members involved in this visit	1. Prof R B Gunale 2. Prof. M S Dandnaik 3. Prof. V K Javanjal	
<b>Sr. No.</b>	<b>Photograph and Description of an activity undertaken</b>	<b>Briefs about the session</b>
1	 <p style="text-align: center;">Welcoming session for students and professors</p>	<p>The batch strength of 50 Students has reported to Accurate Gauge premises, Hadapsar (Industrial Estate-Pune) sharp at 10 am. The welcoming session for students along with professor has been arranged by respective person from Accurate Gauges. At the end of session all were headed towards the visiting of various departments in Accurate Gauges.</p>
2	 <p style="text-align: center;">Honorable chairman and founder of Accurate Gauges</p>	<p>Before start up with an industrial visit, firm has share their honor and respect towards the respected chairperson and founder of the Accurate Gauges.</p>



Working of CMM machine (Large scale application)

3

The CMM (Coordinate Measuring Machine) is used to measure various component parameters like linear dimensions, angular measurement, flatness, straightness, parallelism etc. the cost of machine is approximately 25 Lakhs. The machine has been sold to 5 IIT's and two engineering college form Pune (Singhad and VIT). The manual machines with same work specifications are available up to 12 lakhs. The accuracy of measurement is + or - 0.2 Micron.



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Working of CMM machine (Small scale application)

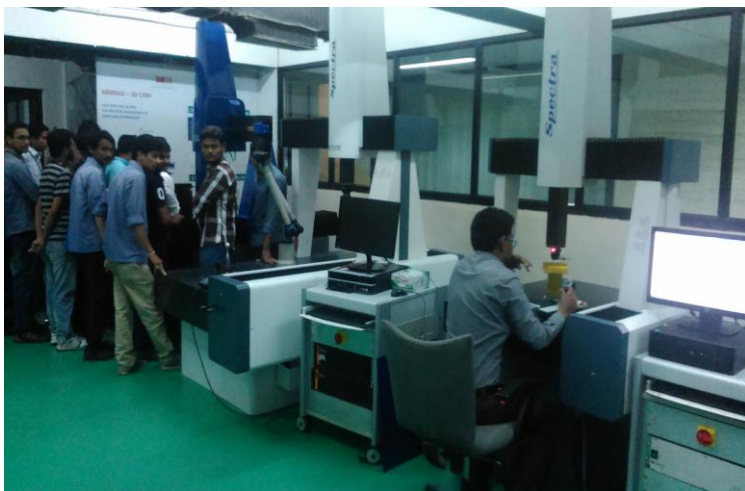
The small scale CMM machines are only applicable to measure the various parameters form shaft or any cylindrical surfaces. The cameras become the integral part of machine assembly and utilized further to capture the profile of cylindrical surface to measure the various parameters related to respective profile.



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Introduction to expected CMM model which would manufactured possibly in nearing future (Applicable for Heavy duty machinery parameters measurement)

The heavy duty components, whose parameters range is too big to measure with the help of machines specified above, at the same time accommodating such heavy duty jobs on the machine platform is quite possible every time. To overcome such drawbacks in the measurement and calibration process, the machine with base dimension (5m\*5m)



6

Introduction to the mode of working in Calibration Lab

Calibration for screw thread diameter (Major diameter, Minor diameter and Effective diameter) by using master standards and floating carriage. The calibration in the measurement of outer and internal threads, included threads angles.



<p>7</p>	 <p>Mr. Datal explaining the students about methodology used to regulate lab temperature around 20.5 degree centigrade</p>	<p>The temperature of room maintained at 20.5 degree centigrade for (24*7) hours of a time. The grid of 8 sensors located at different locations, displays the average reading of the temperature daily and weekly, the report for same submitted to system admin on the weekly basis.</p> <p>The variation in temperature display is avoided let to eliminate any unusual contraction and expansion in the material by the time of calibration.</p>
<p>8</p>	 <p>Methodology used to clean the dirt and dust particle before entering to calibration lab</p>	<p>The black hole, which are supposed to an integral part of the apostasy zone/room used for the cleaning purpose of any such dirt and dust particle. Before entering to calibration department respective person have gone through such system of cleaning.</p> <p>Eliminated entry of such particle in the premises where calibration is going on, would restrict the errors in the calibration afterwards</p>
<p>9</p>		<p>A theory session arranged by Mr. Datal was all about to guide the student regarding preparation of mold of given screw thread profile by using Sulphor as a chemical compound.</p> <p>He offered his kind support to our students let to shape their project ideas regarding mold formation by using some other chemical compound as Sulphor vapors affecting the human life and causes various side effects afterwards.</p> <p>Session has wind up with vote of thank expressed towards the Accurate Gauges and its various staff members for their kind corporation and sharing various value added thoughts.</p>

	A theory session arranged by Mr. Datal let to elaborate the concept of internal thread angle measurement by using replica of the original object which has formed by using Sulphor	
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Prepared By,  
Prof. R B Gunale