

Report on Industrial Visit at Techno Gear Pvt. Ltd

Date: 23/3/2019

Mechanical Engineering Department has arranged one-day visit at **Techno Gear Pvt. Ltd.** for second year students on **23rd march 2019.** Around **54 students with two faculty members** have participated in this visit. Company is situated in Gundlav G.I.D.C., Valsad. The visit was coordinated by Prof. Mayur R. Patel and Prof. Dharmik A. Patel.

Techno gear is manufacturer of all types of precision gears like spurgear, helical gear, bevelgear, worm and worm wheel, rack and pinion etc. They have all in house facilities from cutting raw material to finish final gear.

It all starts with requirement from customers for gear. As per customer's requirement material like EN 8 etc. are selected. From billet material blank is cut as per specifications. Now gearblank is sent to hobbing machine for cutting the gear teeth. Different type of hobbing machine are available for cutting spur gear, helical gear, rack, worm & worm wheel. Heat treatment facility is also available to increase the hardness or to relieve stress for finished and semi-finished gear. CNC machines are used to cut slots, keyways holes in gears and shafts. All gears are now sent to improve surface finish in grinding department. Both internal and external gear grinding facilities are available. Finally, all gears are sent to quality department. Each gear is checked here. Latest instruments like Coordinate Measuring machines, Lead & Profile Tester are available to check all required parameter. If gear passed from quality test they are ready to for delivery.

This visit became very important for the students to enhance knowledge of their subject Manufacturing Process, Mechanical measurement and Metrology and Machine Design.

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