

1. Company, Plant/Factory Profile:-

LUMAX has grown from success to success since its foundation in the year 1945. The company went Public in the Year 1984, and thus in the same year embarked on its highly successful technical collaboration with STANLEY, Japan. and the partnership is live from then up to date .

Lumax has a futuristic vision with an experienced and customer-focused management team. This is clear from our financial growth which has seen a steady upward trend right since our inception.

Lumax strives for continual improvement of manufacturing processes with an emphasis on consistent quality and cost-effectiveness. Lumax signifies LUMINOSITY MAXIMA for today's demanding automobile users.

We at Lumax in the new millennium are committed to retaining excellence in the quality of our products and services, with a focus on customer satisfaction and market leadership. We vow to remain a responsible corporate citizen, contributing to the lives of our people and the preservation of our Planet's eco-balance.

Lumax has strived to bring the latest technologies to Indian roads with the objective of enhancing vehicle performance, improving body styling and aerodynamics, and reducing weight of vehicle parts and driver fatigue. Lumax has constantly endeavored to keep abreast of the latest trends in technology and production techniques. Its manufacturing facilities are equipped with modern machines such as automatic bead laying, ultrasonic welding, hot melt sealing hot plate sealing etc.

TPM is a backbone and main principle for surviving in current market conditions. From MD to bottom level TPM Methodology is being followed in each plant. As a result total 9 JIPM Awards were achieved in 7 Plants. And this year we are applied 4 More Awards

Lumax Group consists of two listed companies-Lumax Industries Limited and Lumax Auto Technology Limited and 37 manufacturing plants in India and 6 R & D centres

2. Lumax Industries Limited Profile:

Lumax Industries Limited is a public limited company. It has **Ten Manufacturing Plants** spread across India strategically located near to Customers. Out of these, three are located near New Delhi, in cities of Gurugram, Dharuhera and Bawal in the state of Haryana. Three plants in Pune, near Mumbai in Maharashtra, two plants in Uttarakhand - Pantnagar, Haridwar, One is located in Bidadi, near Bangaluru in the state of Karnataka, and one plant recently commissioned after expansion at Sanand. These facilities have been laid out to match the world's best plant engineering standards. Our plants are producing automotive lighting for almost all OEMs.

Lumax Industries Ltd. Chakan Plant is part of Lumax Industries Limited and has challenged JIPM TPM Excellence Award 2023.

Lumax Industries Ltd.-Chakan Plant: - (Plant Challenging TPM Excellence Award 2023)

Lumax Industries Limited-Chakan Plant groundbreaking ceremony took place on Feb-2003 and production started on Apr 2005.

This plant was established for manufacturing high technology, high volume products with new culture with capacity of 300 Crore Indian rupees/Annum. Total Area of LIL-Chakan plant is 23000 sqm. Covered area is 51211 sqm (66%) remaining green area is 7789 sqm (34%). Total employees strength is 670 nos.

Sale of this plant was 249 Cr (INR) in FY 2022-23. and this FY (2023-24) we are expecting 300 Cr (INR)

Lumax Chakan Plant is ISO-14001:2015, IATF 16949:2016, ISO 45001:2018, certified

2.1 Lumax Product Range:

The D K Jain group has Auto Component manufacturing capabilities across several product categories including End-to-End Automotive Lighting solutions, Air Intake systems, Integrated Plastic Modules, Gear Shifters, Seat Structures & Mechanisms, 2Wh Chassis, LED Lighting, Aerospace & Defense Engineering Services, Electric & Electronic Components etc. Lumax is world leader in Auto Lighting with 60% market share.

It has joint venture collaborations with several leading global Auto players – Stanley for Lighting, Cornaglia for Air Intake Systems, Mannoh for Gear Shifters, Gill-Austem for Seat Structures & Mechanisms, SIPAL (Tech-Pubs for Defense & Aerospace), Alpine, Ituran (Telematics Products & Services) & FAE for Oxygen Sensors.

2.2 Customer at Lumax Industries Ltd,Chakan:

Lumax Industries Ltd mainly support to customer in passenger Car Segment – Tata Motors, Mahindra nad Mahindra ,Force Motors ,similarly for Commercial Vehicle and Some Product deliver to Exports also fo Audi

| Four & Two Wheeler | Commercial Vehicle | Export |
|--------------------|--------------------|--------|
| | | |
| | DAIMLER | |
| | | |
| | | |

Lumax Chakan plant manufactures Head Lamps, Tail Lamps, Side Turn Lamps, Day Running Lamps, High Mount Stop Lamps & Reflex Reflectors



2.3 -Milestones of LIL Chakan Plant.

We have understood that our sales have been increasing till 2015-16 But, our Defects/Breakdowns was also higher side & Productivity is lower side, there was a strong requirement of introspection of our business model and strategy. We conducted our Group SWOT analysis. The outcome of SWOT analysis was to have a clear vision for next 5 years for our functions like Marketing, Engineering, Manpower and Manufacturing. For us TPM was the best tool to integrate all these functions to achieve our V2027 targets.

Keeping V2020 targets in focus TPM journey started in declaration in July 2015 with one manager model machine.

Lumax Chakan launched TPM activities on Jan 2016 with formal Kick-Off ceremony held in guidance of esteemed customer and Top Management.



Since TPM Kick at system front we have introduced many activities, such as TPM Circle activity, CCC & QCC activity, Suggestion Schemes, Safety and 5S Implementation. By following TPM Activity at our plant we were able to increase in customer confidence, increase business portfolio, Operational Profit as per budget.

3 -Benefits Achieved:

TPM Implementation at Lumax Chakan Plant helped in achievement of business results (tangible) and intangible benefits. Through engagement activities, employees were highly motivated and there was drastic reduction in attrition rate. Below are the some tangible benefits on Key Business Results in terms of PQCDMS.

| Company & Plant name | | Lumax Industries Ltd, Chakan, Pune (Maharashtra) | | |
|-----------------------|--|--|-------------------|---------------|
| TPM Slogan/Objectives | | Lighting Lumax - Lighting Life | | |
| Category | Index | Unit | BM (TPM Kick off) | Actual Status |
| Enter the year | | | 2016 (FY 2015-16) | As on Dec'23 |
| S | Number of work-related accidents requiring days off work | Cases/Year | 0 | 0 |
| S | Number of work-related accidents not requiring days off work | Cases/Year | 16 | 0 |
| P | Productivity for main products (Assembly Process) | Parts/Operator hours | 5.2 | 11.2 |
| P | OEE | % | 64.8 | 88.2 |
| P | Availability | % | 81.2 | 91.2 |
| P | Performance Rate | % | 89.5 | 98.2 |
| P | Quality Products Rate | % | 89.2 | 98.5 |
| P | Number of breakdowns (All Machines) | Breakdowns/Year | 888 | 48 |
| P | MTBF (All Machines) | Hour | 2580 | 8970 |
| P | MTTR (All Machines) | Hour | 2.3 | 1.2 |
| Q | Number of Customer Complaints | Number/Year | 90 | 6 |
| Q | In-line defect rate (scrap) | % w.r.to RMC (Raw Material Cost) | 6.2 | 2.3 |
| Q | In-line defect rate (rework) | % | Not Applicable | |
| C | Cost index (Conversion Cost) | % To Sale | 12.3 | 10.6 |
| D | Production Lead time | Days | 18 | 13 |
| D | Delivery performance | % | 95 | 100 |
| S | Frequency rate | Number of occupational accidents with leave for 1 000 000 worked hours | 0 | 0 |
| M | Number of Employee Suggestions | Number/Year/Employee | 4 | 24 |

4-Key of Our Manufacturing Excellence

The key to manufacturing Excellence lies in continual improvement activities and periodic review with Top Management of the results to meet the strategic performance & and business results.

With the learnings of improvements made in existing equipment and plants, we will install new equipment/ facilities by incorporating all improvements.

- 4.1 Lowest manufacturing cost
- 4.2 Deskillling of all processes
- 4.3 100% Poka Yoke for defect-free systems
- 4.4 100% FIFO in all storage systems
- 4.5 Indigenisation of development activities for reducing cost and lead time
- 4.6 Development of suppliers with TPM learning to provide cost benefits
- 4.7 Proficiency in new technology products

CSR activities:

- a) Adoption of a School for Swatch Bharat Abhiyan and provide basic amenities and improve the infrastructure of the school.
- b) Support nation nation-building mission of “Sarva Shiksha Abhiyan” in which Encouragement is provided to key communities for education.
- c) Lumax Ki Nanhi Chhan (For the Girl Child of an Employee)
- d) Adoption of school for juvenile diabetes care center and provide basic health check-ups.

