



## Industrial Visit

Date of Industrial Visit: 4<sup>th</sup> September 2024

**Subject: “Industrial Visit at Wire-Rings Pvt. Limited, Palghar”.**

As a part of curriculum and considering the benefits & personal growth of individuals, the management of SJCEM recommended “One day Industrial Visit.” Based on the scope of Training, Internship and Placement, the Visit been conducted. Mechanical Engineering department 01-day visit to “**Wire-Rings Pvt. Limited,**” located at Palghar

### **About this Company:**

Wire Rings is a professionally managed company with consolidated interest in the manufacture of Step – Circle lips / Snap Rings / Retaining Rings / Bearing Rings / Lock Ring; Spherical Wheelnut Conical Washers and Allied Wire Products catering to the Bearing and Automobile Industry. **Location:** Plot No 14/15, Dewan Udyog Nagar, Aliyali, Palghar West, Palghar 401404, Maharashtra, India. Student visited this company, that learnt how the wire rings are made, 2 different types of snap rings like flat rings and step rings, and its making process.

### **Manufacturing Process of Wire Rings**

The manufacturing process of wire rings and springs involves several important steps:

1. **Material Selection:** High-grade wire materials such as steel, stainless steel, and alloys are chosen based on the specific requirements for strength, flexibility, and durability.
2. **Wire Drawing:** The selected raw wire is drawn through a series of dies to reduce its diameter to the desired thickness. This process helps ensure the consistency of the wire before it is processed further.
3. **Wire Forming:** Using specialized machines, the drawn wire is shaped into rings or springs of various sizes and designs. CNC wire bending machines are often used for this purpose, providing high precision and repeatability in forming complex shapes.
4. **Heat Treatment:** The formed wire rings and springs undergo heat treatment to improve their mechanical properties, such as strength and flexibility. This is done in controlled furnaces where the wire is heated and cooled under precise conditions.





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6. **Coiling and Spring Forming:** For spring manufacturing, additional coiling machines are used to shape the wire into tightly wound springs. Different types of springs such as compression springs, tension springs, and torsion springs are produced using this technique.
7. **Surface Treatment:** Depending on the application, the wire rings and springs undergo surface treatments such as electroplating, painting, or coating to enhance corrosion resistance and appearance.
8. **Quality Inspection and Testing:** Each batch of wire rings and springs is inspected for dimensional accuracy, surface finish, and strength. Non-destructive testing (NDT) techniques such as tensile tests and hardness tests are commonly used to verify quality.
9. **Packaging:** The packaging of wire rings is a critical step in ensuring that the products are delivered to customers in perfect condition, free from damage, contamination, or deformation. Proper packaging not only protects the wire rings during transportation but also maintains their quality and integrity until they are ready for use.





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## Attendance List

| Roll No | PID       | Student Name                         | Attendance mark |
|---------|-----------|--------------------------------------|-----------------|
| 1       | EU2215001 | Bhoir Mitrank Gajanan Kavita         | A               |
| 2       | EU1215014 | Dhanmeher Manas Bhuvaneshwar Ashwini | P               |
| 3       | EU1215016 | Gharat Riddhesh Rudeep Yaminee       | A               |
| 4       | EU1215012 | Jha Gopi Chandradeo Santoshi         | P               |
| 7       | EU1215008 | Kudmate Chetan Dilip Varsha          | P               |
| 8       | EU2215006 | Lade Dhruv Jayant Rupa               | P               |
| 10      | EU2215008 | Mere Jaynish Santosh Manisha         | P               |
| 12      | EU1215001 | Patil Ameya Anil Trupti              | P               |
| 13      | EU2215005 | Patil Bhavesh Mahendra Prabhavati    | P               |
| 14      | EU2215007 | Patil Hardik Ganesh Priti            | P               |
| 15      | EU2215002 | Pendhari Aishwarya Sudhir Manisha    | P               |
| 16      | EU1215011 | Phuse Parth Rajendra Swapnaja        | A               |
| 17      | EU1215009 | Singh Anurag Anupkumar Nilu          | P               |
| 18      | EU2215018 | Singh Sahil Suresh Leena             | P               |
| 19      | EU1215010 | Sultan Arafat Abdulrazak Anjumaara   | A               |
| 20      | EU2215014 | Tare Nimesh Parshuram Sulochana      | A               |
| 21      | EU1215013 | Tejas Jadhav Jitendra Disha          | A               |
| 22      | EU2215011 | Vishwakarma Shivam Rajkumar Geeta    | P               |
| 23      | EU2215010 | Vora Manoj Gokullal Madhu            | P               |
| 24      | EU1215005 | Zalake Bharat Umesh Vandana          | P               |

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