

3rd January , 2019.

Introduction:

ACCIL has the VISION to be a world class manufacturer of steel products and play a pivotal role for the economic growth of the country. ACCIL stands for ASIAN COLOUR COATED ISPAT LIMITED. It uses machinery provided mainly by CMI FPE LTD. ACCIL plant is situated in Khopoli, Maharashtra.

The Purpose of my Visit:

To understand how steel rolls are treated before they are use into the making of cars and sheds(roofs). To increase my knowledge about how steel is made to last longer than other metals and the method of prevention of the rusting of the steel. And to understand how the colourcoating is done.

Observation:

- **Pickling Line:**

The raw sheet of metal which is rolled and rusted with impurities is purified here. This line basically contains HCl acid which helps in removing impurities. There were 6 containers. All had different percentage of acid content in them, ranging from 2% to 81%. These remove the surface impurities and this process is known as pickling. Even annealing takes place. Rolled sheets are unrolled passed through a rolling machine. They are then passed through a range of rollers so that the full sheet come in a thickness and width. Extra portion are cut.

- **Cold Rolling Mill:**

After Pickling process, the rolled sheets are passed to this system. This system made by CMI FPE Ltd has six rollers which is in the form of 3x3 form. 2 rollers give the required pressure on the metal sheet and the other roller rolls it out of the station. The pressure and desired width of the sheet is given by the HMI which is in the control room just near this mill. Some sheets are passed 2-3 times because a thickness of less than 8mm can only be achieved by passing sheets multiple times. Rollers are regularly replaced to avoid damage and greased eventually. This mill is an open mill i.e. one can see the process what's going on inside. This mill contains:

- a. 2 Backup rollers
- b. 1 un-coiler
- c. 1 coiler
- d. 2 sets of shear rolls
- e. 2 set of shears

- **Galvanizing Line:**

Continuous galvanizing line of Aluminium-Zinc is used on sheets of steel to prevent them from rusting. These start with loading the sheets to the machine so as to uncoil the sheets and as soon as one roll finishes another roll is ready and it is temporarily welded. The sheets are now passed through the mixture for galvanizing. Then some are warped to send to the respective factories and some are sent to the next line which is colour coating.

- **Colour coating line:**

After galvanizing, the sheets are passed through 2 paints. One of them is just a coating to prevent rusting and other coating is the colour. There are passed through several rollers before colour coating. After this process, they are made to go to the oven where the paint is dried and then sent to the respective factories.

Conclusion:

Finally understood how the steel rolls are treated before it is made into a final product.

References:

Srikanth Kalyanasundaram

Sunil Kamath

Sithu Baretho