

# DON BOSCO INSTITUTE OF TECHNOLOGY REPORT ON Industrial VISIT organized by ISHRAE Thane Chapter At SAFE A&T TECHNOLOGY PRIVATE LIMITED



### 16 SEPT. 2017

### FOR SEMESTER 3 STUDENTS

Industrial visit was carried out at 'SAFE A&T TECHNOLOGY' on 16th Sept. 2017 especially for 3rd semester students and it was arranged by ISHRAE Student Chapter, DBIT. The main objective behind the visit was to make students aware about how the refrigeration plant works and how various components of refrigeration are manufactured and tested.

21 S.E ISHRAE members accompanied by 2 ISHRAE student council members reached the factory at 11 am .

As soon as we reached to the company, we were guided by Mr. Shreyas Kulkarni to the meeting room for discussion. There we discussed about the basic refrigeration and air conditioning cycle & its working. After the question and answer session with students , the students were escorted to visit the different sections of company.

The company consisted of different sections like,

- 1. ULTRASONIC CLEANING SECTION
- 2. MIG WELDING SECTION
- 3. WELD TESTING SECTION
- 4. SURFACE PREPARATION SECTION
- 5. ASSEMBLY SECTION
- 6. SHOT BLASTING SECTION
- 7. POWDER COATING SECTION
- 8. LEAKAGE CHECKING SECTION

First we went to the 'ULTRASONIC SECTION',

In this section, cleaning of parts takes place. This consist of alternate tanks of water and chemicals. In which washing of the components takes place.

Then we went for 'MIG WELDING SECTION',

There were two MIG welding machines, one for the smaller parts and second was for the bigger parts welding. Nowadays, company uses linde gas instead of argon gas because it reduces the blow holes inside the weld. It also provides proper surface finishing. Cost of using linde gas is more as compared to the argon but still they are using it, because they want quality products.

### After this we visit 'WELD CHECKING SECTION'

In this section testing of the weld takes place. The welded component is firstly filled with gas and then dipped inside the water, if the bubbles come out from the weld, then the weld concluded as a defective weld. Defective welds are removed on the lathe and parts are rewelded. If the weld is perfect then it is sent to the surface preparation section.

## 'SURFACE PREPARATION SECTION',

The all unevenness present on the surface of weld is remove by the filing by labours.

# 'ASSEMBLY SECTION',

In the assembly section, receiver driers are assembled. Stainer is put on the bottom of shell and then alternately multiple layers of glass wool and desiccants like alumina are applied over then matching of top cover with shell is done by the pneumatic machine. In this way assembly is completed in this dehumidified section.

### 'SHOT BLASTING'

In this section all parts are hang by the hook and blasting of the smaller steel balls is done on the components. This is important process for the powder coating.

After this we went to the 'POWDER COATING SECTION'

In this section powder coating is done on the components by the help of the operator.

Finally we visited the 'LEAKAGE CHECKING SECTION'

Similarly to the weld checking section, final checking is done for any leakags, and defective parts are again sent for repair.

After visiting the different sections, the students Onteracted with the head of the company, to know about the company's future goals and also about the waste disposal and energy efficient system for company.

The industrial visit of 'Safe A & T Private Ltd' ended at 4.30 P.M. The students learnt a lot during this I.V. All students had a very nice experience from this ISHRAE I.V.