

Manufacturing Process Summary:

I. Raw Materials

The primary materials required for the manufacturing process are:

1. **M.S (Mild Steel) sheet**
2. **Handle**
3. **Hinges**
4. **Flap Disc** (for grinding/smoothing)
5. **Gas cylinder** (CO_2)
6. **Welding wire** (taar)
7. **Back patti** (back strip/reinforcement)

II. Production Steps

The manufacturing process involves several stages, from cutting the raw material to final finishing.

1. Cutting

- **Machine: Cutting Machine**
- **Workers:** Three workers.
- **Action:** Mild Steel (MS) sheets are cut to the required sizes.
- **Waste:** Approximately **7-8%** of the total sheets become wastage or scrap at this stage.

2. Shaping (Louvers)

- **Machine: Power Press (Louver)**
- **Workers:** One or two workers.
- **Action:** The cut sheets are sent to the Power Press to give them a **louver shape**. (*Note: This typically refers to pressing vents or slats into the metal.*)

3. Bending

- **Machine: Bending Machine**
- **Workers:** Two workers.
- **Action:** The sheets are bent according to the product's requirements.

4. Inner Spot Welding

- **Machine: Spot Welding Machine**
- **Workers:** One worker.
- **Action:** The worker **welds the inner parts** of the sheet, including materials like **Hinges, patla, and L patti**, working **from the inside** of the sheet.

5. Outer \text{CO}_2 Welding

- **Machine:** \text{CO}_2 Welding Machine
- **Workers:** One worker.
- **Action:** The worker **joints all the external parts** like the **lock, lock clip, back patti**, and **handle** by welding **from the outside** of the box.

6. Grinding and Smoothing

- **Machine:** Grinding Machine
- **Workers:** One worker.
- **Action:** The worker **smoothes the welded areas** using the grinding machine to prepare the surface for finishing.

7. Final Finishing and Inspection

- **Area:** Final Finishing Area
- **Action:** After grinding, the product is sent here for final checks to ensure it is completely okay and meets quality standards.

III. Final Stage

- **Action:** After the final finishing and inspection, the product **goes to colouring** (painting or powder coating).