

# Production Data Analysis Insights - Munjal Kiriu Industries

## Production Trend Insights:

Analysis reveals that the Morning shift has the highest production, while the Night shift shows slightly lower productivity. This trend is clearly visible in the day-wise line chart.

## Shift-wise Production:

The Evening shift has slightly lower production, but the number of defects is moderate, indicating a need to focus on quality improvement.

## Machine-wise Defects:

Machine M-103 reports the highest number of defects, suggesting that its maintenance schedule needs to be reviewed. Other machines are performing relatively better.

## Effect of Temperature on Defects:

Scatter plot analysis shows that defects increase slightly when the temperature exceeds 182°C, highlighting the need to focus on temperature control.

## Cycle Time Relation:

Both production efficiency and defects are influenced by cycle time. When cycle time remains between 15-16 minutes, defects decrease and production increases.

## Recommendations:

- Perform timely preventive maintenance on Machine M-103.
- Strengthen quality control measures during the Evening shift.
- Optimize the temperature monitoring system to reduce product defect rates.
- Provide operator training to maintain cycle time within the optimal range.