

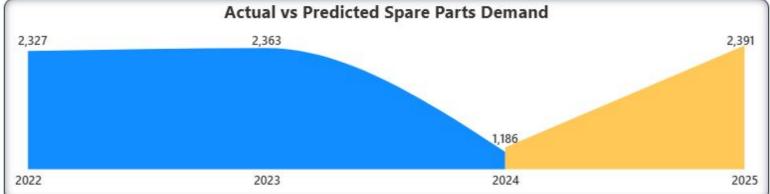
## **INVENTORY FORECASTING DASHBOARD**



### <u>INVENTORY FORECASTING DASHBOARD</u> →







Total Quantity Used in 2022

2,327

Stock Availability % in 2022

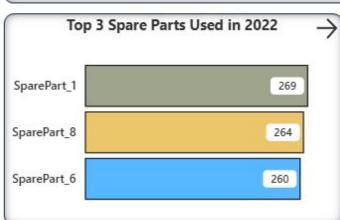
83.8%

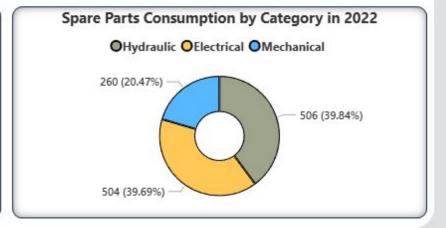
Machine Priority in 2022

Moderate

Average Lead (Days) in 2022

10







## **Dashboard 1: Summary**

**Dashboard Summary** – This dashboard provides a comprehensive view of spare parts usage, availability, and demand forecasting, helping manufacturing and maintenance teams ensure operational efficiency

#### **Key Metrics Displayed:**

Total Quantity Used: 2,327 spare parts consumed

Stock Availability: 83.8% – inventory well managed

Machine Priority: Moderate – balanced spare parts requirement

**Average Lead Time:** 10 days – average waiting period for replenishment

#### Filters Available:

- Interactive slicers for Machine ID, Spare Part ID and Supplier ID to allow tailored analysis.

### **Drill-Through Analysis**

- A detailed drill-through table has been added to this dashboard to provide insights, supporting deeper analysis.



## **Dashboard 1: Core Visual Insights**

Top 3 Spare Parts: SparePart\_1 (269), SparePart\_8 (264), SparePart\_6 (260)

Bottom 3 Spare Parts: SparePart\_5 (223), SparePart\_2 (198), SparePart\_3 (181)

#### **Category Consumption:**

Mechanical: 39.8%

Electrical: 39.7%

Hydraulic: 20.5%

#### **Forecast Trends (2022–2025):**

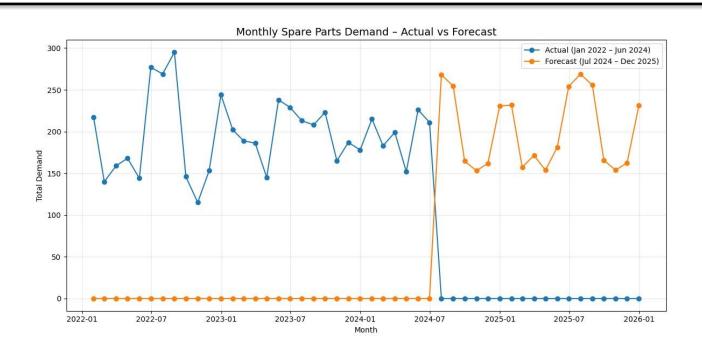
Demand remains stable in 2022-2023 (-2,300 units)

Sharp dip in 2024 (1,186 units)

Strong rebound in 2025 (2,391 units forecasted)



# **Model Implementation**



**Stable past demand:** From 2022-mid 2024, demand is steady with seasonal ups and downs.

Clear forecast trend: From Jul 2024–Dec 2025, demand continues with similar seasonal peaks and dips.

**Inventory planning:** Saudi Engineer must stock more during forecasted peak months (summer & winter) to avoid shortages.

