



MULTI-PLANT INVENTORY PLANNING

One Plant Was Hard Enough. Now Multiply That by Five.

ShivAI Manufacturer Inventory Planner v2.0 — Full MRP + BOM + Capacity + AI Forecasting, now with 12 analytics modules, cross-plant consolidation, PO generation with GST, cost rollup, exception dashboard, and scenario planning. The complete materials command center for multi-plant manufacturers.

THE MULTI-PLANT PROBLEM

Everything Breaks When You Scale to Multiple Plants

<p>Plant A Has Surplus, Plant B Has Shortage Same raw material sitting idle in one warehouse while another plant's line stops. No visibility across plants means no inter-plant transfers.</p>	<p>5 Plants x 12 Excel Files = Chaos Each plant runs its own BOM, its own inventory count, its own MRP. No one has the consolidated picture. Decisions are plant-local, not company-optimal.</p>
<p>POs Created Manually, GST Wrong Purchase orders typed in Word. GST rates looked up manually. Supplier details copy-pasted. One error = ITR mismatch at year-end.</p>	<p>No One Knows the Real Cost Asked for the standard cost of your top product? 3 people give 3 different numbers. No recursive BOM cost rollup. No margin analysis.</p>

ENHANCED SOLUTION

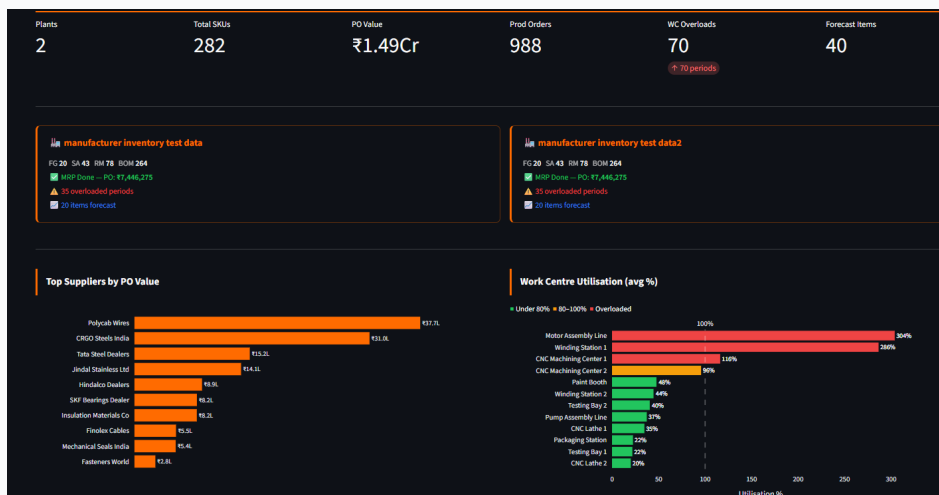
4 Engines. 12 Analytics Modules. Cross-Plant View.

Upload Excel data from multiple plants — items, BOM, inventory, work centers, routing, open orders, sales history. MRP + BOM + Capacity + AI Forecasting engines. Adds the intelligence layer — 12 specialist analytics modules that turn raw MRP output into daily decisions, exception alerts, cost analysis, and cross-plant consolidation.

12 ANALYTICS MODULES

From MRP Output to Daily Decisions

<p>1. Dashboard Executive summary: KPIs, per-plant status cards, supplier charts, WC utilization traffic-light, inventory risk table.</p>	<p>2. Production Gantt Visual shop floor schedule. Item/week navigation. Colour by work centre. Hover for operation details. Drag to reschedule.</p>	<p>3. PO Generator Print-ready POs per supplier with auto-populated supplier name/city/state/payment terms. GST from RM sheet. Excel + HTML output.</p>
<p>4. Where-Used Upward BOM traversal with Sankey diagram. 'If this RM is delayed, which FGs are affected?' Instant impact analysis.</p>	<p>5. Scenario Planner Parallel MRP + CRP with modified params. Compare base vs scenario side-by-side. Model demand surges, supplier delays, safety stock changes.</p>	<p>6. Load Levelling Resolves WC overloads by moving orders to periods with spare capacity. Before/after heatmap. Manual reassignment with live recalculation.</p>
<p>7. Scrap/Yield Actual vs BOM yield. Scrap cost in INR. Scrap Reason Pareto. Week-on-week trend chart. Feeds quality meetings.</p>	<p>8. Cumulative Lead Time Recursive CLT calculation with memoization. Critical path identification. Drives safety stock strategy and order-acceptance decisions.</p>	<p>9. Cost Rollup Recursive BOM cost explosion: material + labour + overhead. Editable assumptions. Margin analysis vs selling price. Excel export.</p>
<p>10. Material Availability 'Can I make this?' Real-time BOM explosion vs current stock + inbound. Readiness score. Shortage list with expediting priority.</p>	<p>11. Exception Dashboard Priority-ranked action queue: Critical/High/Medium/Low. Consolidates all planning exceptions. Value-at-risk column. Start every morning here.</p>	<p>12. Inventory Analytics ABC classification, inventory turns, dead/slow movers, inventory value pyramid. Four tabs for complete inventory health.</p>

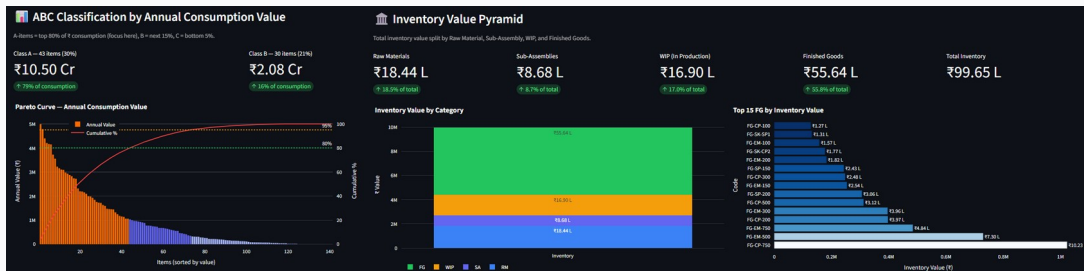


MIP v2 Dashboard — KPI row, per-plant status cards, supplier bar chart, WC utilization, inventory risk table



See All Plants in One View

Load data from multiple plants. MIP v2 consolidates inventory positions, planned orders, capacity loads, and exception counts into a single cross-plant dashboard. Identify inter-plant transfer opportunities. Spot which plant is overloaded while another has spare capacity. Make company-level decisions, not plant-local guesses.



Cross-Plant View — consolidated inventory, capacity comparison, inter-plant transfer opportunities

PO GENERATOR — GST COMPLIANT

MRP Planned Orders to Print-Ready POs in One Click

Run your MRP plan, and the PO Generator creates ready-to-send Purchase Orders automatically — one per supplier, with all the details filled in: supplier address, payment terms, item descriptions, quantities, rates, and GST calculated line by line. Download as a formatted document to email or print, or as an Excel workbook with all suppliers in one file. You never type a PO manually again.

REAL BUSINESS WORKFLOWS

Not Theory. Here's How Teams Use MIP v2 Every Week.

<p>Monday: Production Planning</p> <p>Upload updated Excel. Run Full Planning. Open Exception Dashboard — address all Critical and High before the meeting. Export Planned Orders to Excel for procurement. Review Production Gantt for the week.</p>	<p>Customer Order Promising</p> <p>Customer requests delivery date. Open Material Availability Check. Readiness Score 100%? Confirm. Below 80%? Review shortage list, identify which POs to expedite, give realistic date.</p>
<p>Supply Disruption Response</p> <p>Supplier calls with delivery problem. Open Where-Used on the affected RM. Instantly see which FGs are at risk. Run Material Availability on each. Determine how long stocks last. Decide: expedite, substitute, or re-plan.</p>	<p>Annual Cost Review</p> <p>Update raw material prices and labour rates in Excel. Reload MIP. Run Cost Rollup for each FG. Compare rolled cost vs standard cost. Items where margin dropped below target need price revision. Export for board.</p>

11-SHEET EXCEL DATA MODEL

<p>Finished_Goods</p> <p>Saleable items: code, name, UOM, lead time, safety stock, lot size, std cost, selling price</p>	<p>Sub_Assemblies</p> <p>Intermediate products: same fields as FG plus BOM level</p>	<p>Raw_Materials</p> <p>Purchased items: supplier code, min order qty, unit cost, gst_pct</p>
<p>Suppliers</p> <p>Name, city, state, payment terms — auto-populated into PO documents</p>	<p>BOM + Routing</p> <p>Parent-child with qty_per, scrap factor. Routing: operation sequence, WC, setup/run time</p>	<p>Work_Centers</p> <p>Capacity/day, efficiency %, cost/hour. Drives CRP and cost rollup</p>
<p>Current_Inventory</p> <p>On-hand, allocated qty. Open POs and production orders with due dates</p>	<p>Historical_Sales</p> <p>Order history for AI forecasting. 52 weeks ideal for seasonal detection</p>	<p>Planning_Parameters</p> <p>Horizon weeks, lot sizing rule, safety stock method, working days/week</p>

THE BUSINESS CASE

35% Lower inventory holding	12 Analytics modules	90%+ Material availability	Rs.15L+ Savings on multi-plant
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WHO IT'S FOR

<p>Multi-Plant Manufacturing</p> <p>Rs.100-500 Cr companies with 2-10 plants needing consolidated planning</p>	<p>Production Planners</p> <p>Weekly MRP runs, exception management, PO generation, Gantt scheduling</p>	<p>Finance Controllers</p> <p>Cost rollup, margin analysis, inventory valuation, scrap costing in INR</p>	<p>Procurement Heads</p> <p>PO generator with GST, supplier management, material availability checks</p>
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One Plant Was Hard. Multiple Plants Need a System.

Start your 30-day Pilot (₹4,999) | contact@shivaiscsolutions.com | www.shivaiscsolutions.com