

XERPUM

Manufacturing

Enterprise Resource Planning

Complete integrated ERP solution for
manufacturing industry

2000+

MODULES

AI

ASSISTANT

SaaS

/ ON
PREMISE

English Edition — brosur.xerpium.com

Enterprise-Grade Manufacturing Ecosystem

XERPIUM MANUFACTURING is a manufacturing module ecosystem built on XERPIUM 18 — covering Quality Control, AI Assistant, Dashboard Analytics, and Dynamic Stage Workflow.

Manufacturing Orders

MRP Production — Create, confirm, track MOs from BOM

Multi-company — Multi-location operations, company-bound

Automated Planning — Production plan based on stock & lead time

Cost Accounting — mrp_account integration for WIP journal

Bill of Materials (BOM)

Multi-level BOM — Sub-assembly & raw material hierarchy

BOM per Variant — Configuration per product variant

Aerospace Config — BOM → aircraft type (as-designed/as-built/as-maintained)

AI BOM Lookup — Search BOM details via AI assistant

Work Centers

Standard — Assembly Line, Machining, Testing, Paint, QC, Tooling

Aerospace Extension — Certification tracking, calibration scheduling

Environmental Controls — Temperature, humidity, contamination tracking

Capacity Management — Limit capacity per aircraft type

Work Orders

Native Execution — XERPIUM standard work order flow

Aerospace Extension — Operator assignment, sign-off workflow

Tool Tracking — Fixture, gauge, special tool per work order

Digital Sign-off — Digital signature + timestamp audit trail

Enterprise Features

Multi Warehouse Locations — Hierarchical warehouse, receiving location, stock, delivery, cross-dock

Multi Company / Branch — Multi-location operations, inter-company transactions, shared master data

Consolidation Reports — Multi-company consolidated report, inter-co elimination, drill-down

Multi User — Role-based access control, group permissions, approval workflow

Multi Currency — Multi-currency transactions, exchange rate auto-sync, unrealized gain/loss

Inter-Company Operations

Inter-Co SO → PO — Sales order automatically generates a purchase order in another branch

Inter-Co Stock Transfer — Goods transfer between warehouses/branches with auto journal

Consolidated P&L — Combined Profit & Loss for all branches/entities

Consolidated Balance Sheet — Consolidated balance sheet with inter-co elimination

Currency Conversion — Rates automatically from Bank Indonesia / ECB / Federal Reserve

Quality Control

xerpium_mrp_quality provides complete quality management without an Enterprise license.

Sample Implemented QC: Aerospace

NCR — Non-conformance reports, severity, root cause, linked to MO

CAPA — Corrective & preventive actions, effectiveness tracking

Inspection Plans — Incoming, in-process, final with line items

FAI (AS9102) — First Article Inspection: full/partial/delta. Auto pass/fail

Quality Release — Quality release certificate per MO

◆ QC: Gold Mining & Refinery

Assay Samples — Chip, core, grab, channel, composite. Source: ore, bullion, process, tailings, soil

Test Methods — Fire Assay, XRF, Wet Chemistry, AAS, ICP-OES

Lab Results — Gold PPM, silver PPM, copper %, iron %, sulfur %. Auto-compute grade g/ton

Purity Certificate — Karat grades (375-999), troy oz conversion, valid_until tracking

Refinery QC — Quality review stage before completed. Linked to purity certificate

Workflow — Draft → Submitted → Analyzed → Reported

⚙️ QC: Coal Mining

Coal Samples — Source: mine face, stockpile, delivery, rehandle. Type: chip, grab, channel, composite

Test Methods — Proximate Analysis, Ultimate Analysis, Calorific Value Test

Lab Results — Calorific Value (kcal/kg), total moisture %, ash %, volatile matter %, sulfur %, fixed carbon %

Quality Certificate — Grade A/B/C/Sub-bituminous/Lignite, weight ton, customer linked

Production Integration — Quality fields directly on the MO: actual_cv, actual_ash, actual_moisture

Workflow — Draft → Submitted → Analyzed → Reported

📦 QC: Palm Oil

Basis Framework — xerpium_mrp_quality as the QC foundation for the palm oil industry

Quality Control Points — Control points for CPO, PKO, kernel, empty bunch, fiber

Planned Metrics — Free Fatty Acid (FFA), moisture content, dirt content, DOBI value

Sample Tracking — Fresh fruit bunch grading, kernel quality, shell ratio

Dashboard Integration — vit_dashboard_sawit for CPO production KPIs

Status — Module on the roadmap, QC framework already available

⚙️ QC: Generic Manufacturing

Quality Control Points — QCP#### sequence, per product, category, picking type

Quality Checks — QC#### sequence. Pass/Fail/Measure. Auto-seed from control point

Quality Alerts — QA#### sequence. Kanban: New → Confirmed → Action Proposed → Solved

Root Causes — Workcenter Failure, Parts Quality, Others (configurable)

Test Types — Instructions, Pass-Fail, Measure, Picture

Teams & KPI — QC teams with check_count, alert_count metrics

AI Assistant — Manufacturing with Natural Language

100+ tools, 12 MRP intents, 11 languages supported. Command manufacturing in everyday language.

AI Assistant for Development

Add Fields — Add new fields to any model via natural language command

Change Workflow — Modify stage, state, approval flow without coding

Add Form Views — Create a new form view with automatic field layout

Add Actions — Server action, menu action, contextual action via AI

Add Security Rules — RBAC groups, record rules, access rights

Add Reports — QWeb report template from description

No-Code Customization

Schema Inspector — AI reads models, fields, relations in real time

Code Generator — Python model + XML view + CSV security automatic

Preview & Apply — Preview changes before applying them to the database

Rollback Safe — All changes can be rolled back via version control

Prompt → Code → Deploy — From idea to a running module in minutes

Dashboard Analytics — Dashboard Studio

19 chart types, dual data source (ORM + SQL), AI auto-generate, NL→SQL, copilot chat.

AI Dashboard Features

Auto-Generate — Natural language → complete dashboard via DeepSeek

NL → SQL — Natural language → SQL query real-time

Chart Insight — AI analysis of trends, peaks, anomalies, recommendations

Copilot Chat — SSE-streamed chat with dashboard context

Conditional Formatting — Dynamic color based on value

Dynamic Stage Workflow

Configurable stage framework for all XERPIUM models — with Python hooks, server actions, and RBAC.

Framework Features

Configurable per Model — Independent stages for each XERPIUM model

Python Hooks — Run method when a record enters a stage

Server Actions — Automated actions on stage enter

RBAC Groups — Restrict stage per group (Manager, User, Viewer)

Native State Sync — Auto-sync stage ↔ native state field

Back Navigation — Supports moving back a stage (configurable)

Default Stage — Auto-assign when a new record is created

Cross-Module Integration

Manufacturing fully integrated with the entire XERPIUM ecosystem.

Manufacturing ↔ Sales

sale.order → mrp.production via BOM auto-resolve

Dynamic stages sync: SO confirmed → trigger production

AI: "Create an MO from SO/001"

Manufacturing ↔ Purchase

Raw material requirements → Purchase requisition

Vendor management (tier, certification, quality rating)

PO received → stock available → MO ready

Manufacturing ↔ Inventory

stock.move ↔ mrp.production (components & finished goods)

Serial number tracking (mandatory for aerospace)

Lot tracking, shelf life management

Manufacturing ↔ Accounting

mrp_account → automatic WIP journal entries

Cost center tracking (analytic accounts)

MIS Builder integration for cost analysis

Manufacturing ↔ HR

Operator assignment (hr.employee) on work orders

Sign-off by employee with timestamp

Workforce planning & scheduling

Manufacturing ↔ Quality

Quality check triggered when MO is produced

Quality alert from non-conforming production

NCR/CAPA workflow (aerospace)

Manufacturing ↔ Customs (Bonded Zone)

Automatic import & export manifests for Bonded Zones

PCB (Excise Goods Notification) & PE (Export Notification) tracking

Real-time customs status: approved, hold, reject

Automatic BCKI (Excise Book to Industrial Zone) reconciliation

Tracking goods in/out of the Bonded Zone with HS Code

INATRADE integration for export documents

Manufacturing ↔ Coretax (Taxation)

Auto-generate VAT e-Faktur (Electronic Tax Invoice)

AUTOMATICALLY calculate tax base, VAT, luxury goods tax from MO/Invoice

Bulk e-Faktur upload to Coretax via API

Automatic counterparty tax ID validation

Integrated invoice returns & cancellations

Real-time VAT return reports (Output VAT & Input VAT)

Automatic VAT account mapping to chart of accounts

Manufacturing Accounting Journals

Automatic journal flow from material consumption to finished goods — fully integrated with mrp_account.

Manufacturing Accounting Features

WIP Auto-Entry — Automatic WIP journal when components are picked

Cost Rollup — COGS automatic = Material + Labor + Overhead

Variance Analysis — Difference between estimated vs actual cost

Overhead Allocation — Allocation based on machine hours / units produced

Multi-Company Journal — Inter-co manufacturing journal entries

Analytic Distribution — Cost center tracking per project/department

Period Close — Automatic monthly WIP revaluation

✈ Aerospace Manufacturing

MO Extensions — Aircraft type, serial number, configuration, priority (AOG/Critical/High/Normal/Low)

Work Order Sign-off — Digital sign-off, operator, timestamp, tool tracking

Tooling Management — Fixture, gauge, calibration scheduling, status

ECO (Engineering Change) — BOM link, approval workflow, revision tracking

FAI (AS9102) — First article inspection: full/partial/delta

Quality Release — Quality release certificate per MO

⚙ Coal Production

Daily Production Orders — Shift-wise tracking (planned vs actual tonnage)

Stockpile Management — Weighted average CV, capacity utilization

Haulage Tracking — Equipment, operator, fuel, duration

Quality Integration — CV, ash, moisture parameters

Government Reporting — ESDM compliance

♦ Gold Production & Refinery

Ore Extraction — Block, seam, ore type, grade tracking (g/ton)

Refinery Jobs — Smelting, CIL, CIP, heap leach, amalgamation, electrolysis

Bullion Tracking — Bar no, purity (999/995/960/916/750/585/375)

Loss/Recovery — Slag, loss computation, recovery rate %

Fine Gold Calc — Automated weight → troy oz conversion

Garment Manufacturing

Style/BOM Management — BOM per style, size, color, combination

Multi-Level Bill of Materials — Fabric, trim, accessory, packaging

Production Tracking — Cutting → Sewing → Finishing → QC → Packing

Fabric Roll Length — Meter/yard per roll tracking, marker efficiency

Dashboard Garment — Line efficiency, bottleneck, output per line

Buyer/SO Integration — PO from buyer directly triggers production plan

Generic Manufacturing

Quality Control Points — Control points for all products

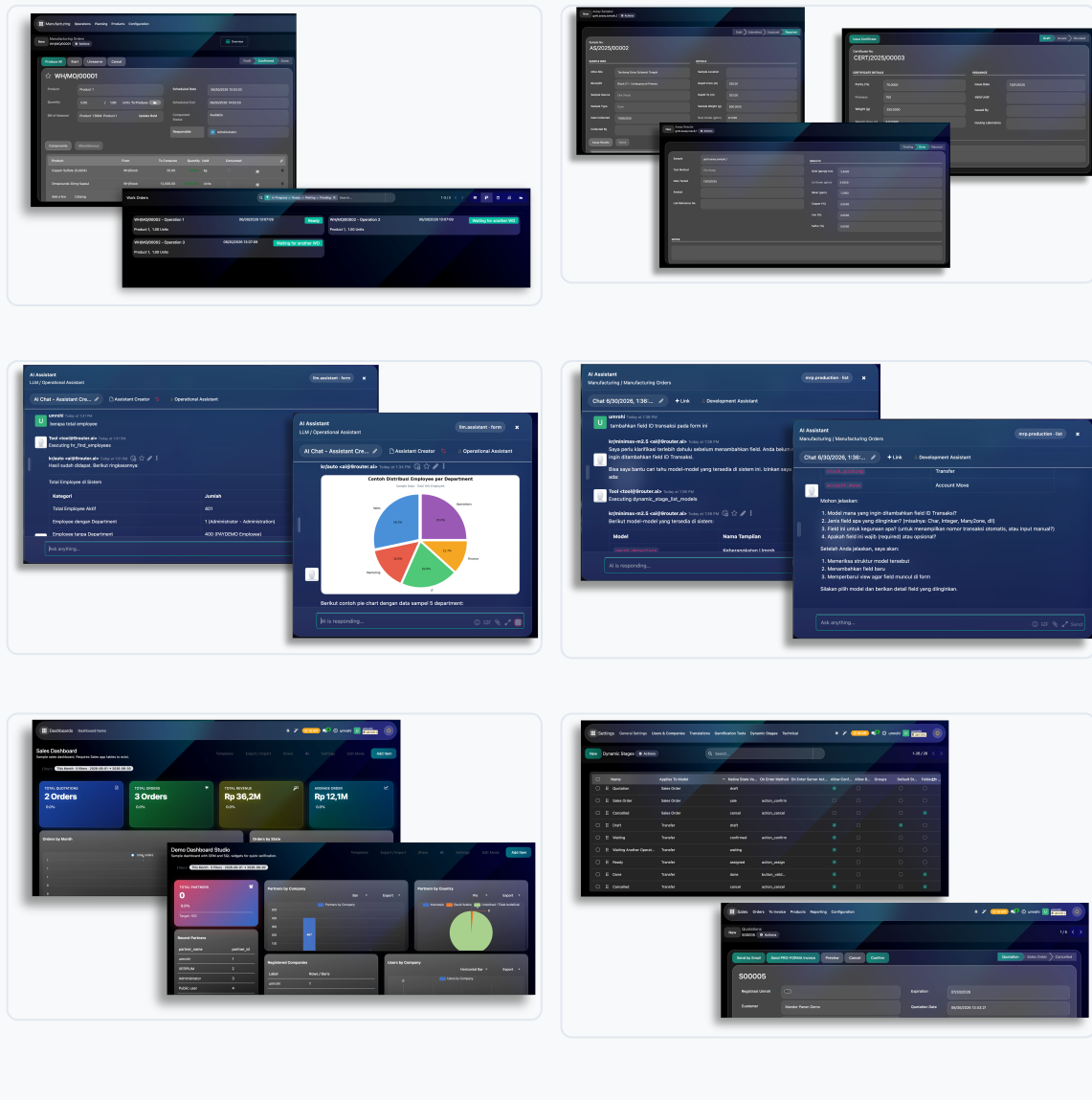
Manufacturing KPI Dashboard — Production orders, efficiency, downtime

AI Manufacturing — Create/confirm/cancel MO via natural language

Dynamic Stage — Configurable workflow for all manufacturing models

Cross-Module Integration — Sales, Purchase, Inventory, Accounting, HR

Gallery & Demo Videos



Xerpium ERP — xerpium.com

Contact us for a free demo

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