

XERPIMUM

Maintenance & Service

Enterprise Resource Planning

Solusi ERP lengkap untuk industri
maintenance & service

2000+

MODUL

AI

ASSISTANT

SaaS

/ ON
PREMISE

Bahasa Indonesia Edition — brosur.xerpium.com

Manajemen Service & Maintenance Rotating Equipment

XERPIUM MAINTENANCE SERVICE adalah modul inti bisnis untuk perusahaan jasa service & maintenance rotating equipment (pompa, kompresor, turbin, motor) — dari inquiry, estimasi, quotation, work order execution, checklist, hingga invoicing.

Service Order Management

Dari inquiry customer hingga quotation — dengan cost estimation 6 line types, competitor tracking, dan priority management.

Service Order Fields

Service Order No — Auto-sequence, tracking enabled

Customer — res.partner (company only), contact person, phone

Equipment to Service — Many2many customer.equipment

Problem Description — Text description dari issue

Service Type — Maintenance, Repair, Overhaul, Installation, Inspection

Urgency — Routine, Urgent, Emergency

Priority — maintenance.priority (sequence + color)

Lead Source — Tracking sumber lead

Date Requested & Expected — Tanggal request & estimasi selesai

Competitor Tracking

Competitor Name — Nama kompetitor yang juga diundang

Quoted Price — Penawaran harga kompetitor

Notes — Catatan kekuatan/kelemahan kompetitor

Win/Loss Analysis — Evaluasi penawaran vs kompetitor

SO Actions & Wizards

Submit Estimate — Draft → Estimated (confirm wizard)

Create Quotation — Estimated → Quoted, auto-generate sale.order

Create Work Order — Quoted → WO (wizard: technician, schedule)

Reset to Draft — Kembalikan ke draft

Cancel — Batalkan service order

Work Order Execution

Eksekusi pekerjaan dengan technician assignment, actual vs estimate cost tracking, checklist execution, dan auto-invoicing.

Work Order Fields

Work Order No — Auto-sequence, tracking

Service Order Link — origin_id ke maintenance.service.order

Sale Order — sale.order related dari SO

Customer PO/SPK No — customer_po_ref dari SO

Service Type — Related dari SO (maintenance, repair, overhaul, installation, inspection)

Equipment — Related dari SO (customer.equipment)

Technicians — hr.employee Many2many assignment

Schedule — date_scheduled, date_start, date_end, date_completed

Actual vs Estimate (Variance Analysis)

Actual Materials — is_estimate=False, line_type=material

Actual Labour On-site — Actual man_power, days, hours

Actual Labour Workshop — Workshop actual

Actual Equipment — Equipment rental actual

Actual Subcontractor — Subcontractor actual

Actual Overhead — Overhead actual

estimate_line_id — Link actual ke estimate line untuk variance

Total Estimate vs Total Actual — Auto-compute profit margin

WO State Actions

Start Service — Confirmed → In Progress (set date_start)

Pause Service — In Progress → On Hold

Resume Service — On Hold → In Progress

Complete — In Progress → Completed (set date_completed)

Create Invoice — Completed → Invoiced (wizard)

Close — Invoiced → Closed

Cancel — Any state → Cancelled

Invoicing

Create Invoice Wizard — Pilih journal, invoice amount, note

Auto-Line Items — Material, labour, subcontractor lines auto-ke invoice

Fallback Single Line — Jika tidak ada actual cost, single line dengan invoice_amount

account.move — move_type=out_invoice, invoice_origin=WO name

Invoice Status — draft, partially_invoiced, invoiced

WO State → Invoiced — Auto-set setelah invoice dibuat

Customer Equipment & Rotating Equipment Catalog

Registry equipment customer + catalog jenis rotating equipment dengan type, brand, model, specifications, dan spare parts.

Customer Equipment

Equipment Name & Code — Identifikasi unit di customer

Customer — res.partner (company only)

Equipment Catalog Link — Link ke rotating.equipment catalog

Type & Brand — Related dari catalog entry

Serial Number — Unique serial per unit

Model / Type — Model variant

Location at Customer Site — Lokasi pemasangan

Installation Date & Warranty Expiry — Tanggal install & garansi

Current Condition — Running, Stop, Needs Monitoring

Horsepower, RPM, Capacity — Technical specs per unit

Service Count — Auto-compute dari work orders

Last Service Date — Auto-update dari WO terakhir

Rotating Equipment Catalog

Equipment Name & Code — Katalog entry

Equipment Type — Pump, Compressor, Turbine, Motor, dll

Brand — Manufacturer brand (Grundfos, Sulzer, Atlas Copco, dll)

Model — Model variant

Horsepower & RPM — Technical specifications

Capacity — Flow rate, pressure, output

Mounting Type — Horizontal, Vertical, Inline

Technical Specifications — Full spec text

Common Spare Parts — product.product Many2many

Equipment Type

Type Name — Pump, Compressor, Turbine, Motor, Fan, Blower, Gearbox

Code — Short code untuk reference

Description — Penjelasan tipe equipment

Unique Name — SQL constraint name_uniq

Filter — Checklist template bisa filter per type

Equipment Brand

Brand Name — Grundfos, Sulzer, KSB, Atlas Copco, Ingersoll Rand, Siemens, ABB

Code — Short code

Manufacturer — res.partner link (manufacturer/supplier)

Website — Official website

Unique Name — SQL constraint name_uniq

Checklist Template & Execution

Template checklist per equipment type, eksekusi di lapangan dengan measured value, pass/fail, photo evidence, dan auto-compute overall pass.

Checklist Template

Template Name — Nama template (e.g. "Pump Inspection - Monthly")

Equipment Type Filter — Optional: filter per equipment type

Checklist Items — One2many checklist.line

Description — Penjelasan template

Checklist Line (Items)

Item Name — e.g. "Vibration level", "Temperature", "Oil pressure"

Expected Value / Range — Target nilai

Min & Max Acceptable — Batas acceptable range

UoM — Unit of measure (mm/s, °C, bar, rpm)

Critical Item — Boolean: item kritis (auto-fail if out of range)

Notes / Instructions — Petunjuk pengukuran

Sequence — Urutan item

Checklist Execution

Work Order Link — Terikat ke maintenance.work.order

Template — Pilih template saat eksekusi

Execution Date — Tanggal eksekusi

Executed By — res.users (technician)

All Passed — Auto-compute: all results pass = True

Notes — Catatan eksekusi

Checklist Line Result

Measured Value — Nilai numerik hasil pengukuran

Measured Value (Text) — Nilai text (e.g. "OK", "Leak found")

Pass — Boolean: pass/fail per item

Photo — Image attachment (max 1920×1920)

Notes — Catatan per item

Checklist Item Link — Reference ke template line

Preventive Maintenance Schedule

Penjadwalan maintenance preventif per equipment dengan interval (days/months/operating hours), auto-generate work order via cron, dan overdue tracking.

Schedule Configuration

Schedule Name — e.g. "Pump P-101 - Monthly Inspection"

Equipment — customer.equipment link

Customer — Related dari equipment

Interval Type — Days, Months, Operating Hours

Interval Value — e.g. 30 days, 3 months, 500 hours

Service Type — Maintenance, Repair, Overhaul, Inspection

Next Service Date — Tanggal next service

Last Service Date — Auto-update setelah service

Auto-Generate Work Order — Boolean: cron auto-create WO

Cron Auto-Generation

_cron_generate_work_orders() — Cron job harian

Overdue Detection — $\text{next_service_date} \leq \text{today}$ & auto_generate_wo

Auto-Create Service Order — Draft SO dengan description auto

Auto-Submit Estimate — SO langsung ke state Estimated

Next Date Recalculation — Auto-update next_service_date berdasarkan interval

Source Tag — "Preventive Maintenance Schedule"

Dynamic Stage Workflow

xerpium_dynamic_stage_maintenance — Stage configurable untuk Service Order & Work Order dengan Python hooks, RBAC, dan state sync.

Stage Sync Hooks

action_submit_estimate() → _x_sync_stage_from_state()

action_create_quotation() → _x_sync_stage_from_state()

action_cancel() → _x_sync_stage_from_state()

action_reset_draft() → _x_sync_stage_from_state()

action_start_service() → sync

action_pause/resume_service() → sync

action_complete() → sync

action_create_invoice() → sync

action_close() → sync

action_cancel() → sync

AI Tools — Maintenance dengan Natural Language

3 AI tools khusus maintenance: equipment lookup, work order status, schedule check — terintegrasi dengan XERPIUM AI Assistant.

Equipment Lookup

Tool: llm.tool.maintenance_equipment_lookup

Parameters: customer_name, equipment_type

Returns: name, code, customer, type, brand, model, serial, location, condition, last_service

Limit: 50 records

Work Order Status

Tool: `Ilm.tool.maintenance_work_order_status`

Parameters: `customer_name`, `state`

Returns: `name`, `customer`, `service_type`, `state`, `scheduled`, `total_cost`, `invoice_status`

Limit: 50 records

Schedule Check

Tool: `Ilm.tool.maintenance_schedule_check`

Parameters: `customer_name`, `overdue_only`

Returns: `schedule`, `customer`, `next_service_date`, `overdue status`

Overdue Filter: `next_service_date ≤ today`

Dashboard Maintenance Service

`vit_dashboard_maintenance_service` — 4 ORM sources + 4 SQL sources, KPI tiles, charts, auto-refresh 5 menit.

Integrasi Cross-Module

Maintenance Service terintegrasi penuh dengan Sales, Accounting, Inventory, HR, dan Analytic.

Maintenance ↔ Sales

SO: action_create_quotation → sale.order otomatis

Customer PO/SPK ref dari SO ke WO

Quotation line items dari estimate lines

Maintenance ↔ Accounting

Create Invoice Wizard → account.move (out_invoice)

Auto-line: material, labour, subcontractor

account.move inherit: maintenance_work_order_id field

Invoice status tracking di WO

Maintenance ↔ Inventory

Material lines → product.product (spare parts)

Rotating equipment catalog → common spare parts

Stock reservation untuk WO materials

Maintenance ↔ HR

Technician assignment: hr.employee Many2many

Labour lines: employee_id, man_power, days, hours

Workforce scheduling & dispatch

Maintenance ↔ Analytic

Cost center tracking per WO

Variance: estimate vs actual per line

Profitability analysis per service order

Maintenance ↔ Purchase

Material requirement → purchase request

Subcontractor → PO for sub-contracted work

Spare part procurement

Xerpium ERP — xerpium.com

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