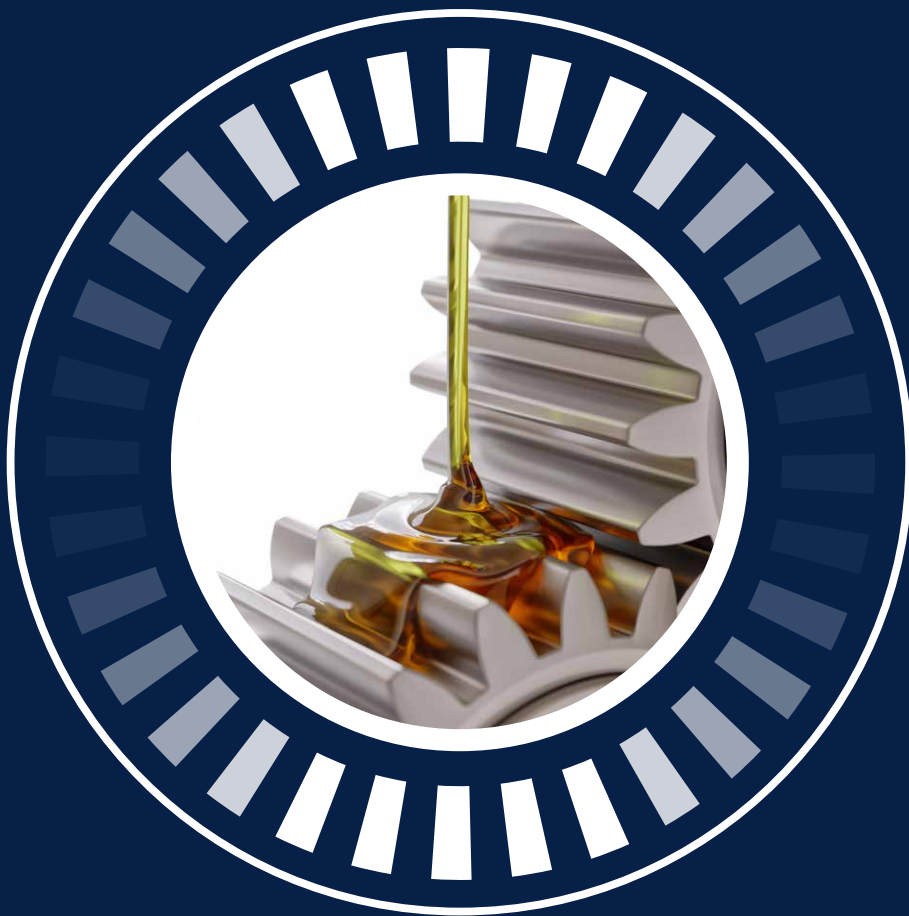


Lubrication

Experience What's Possible



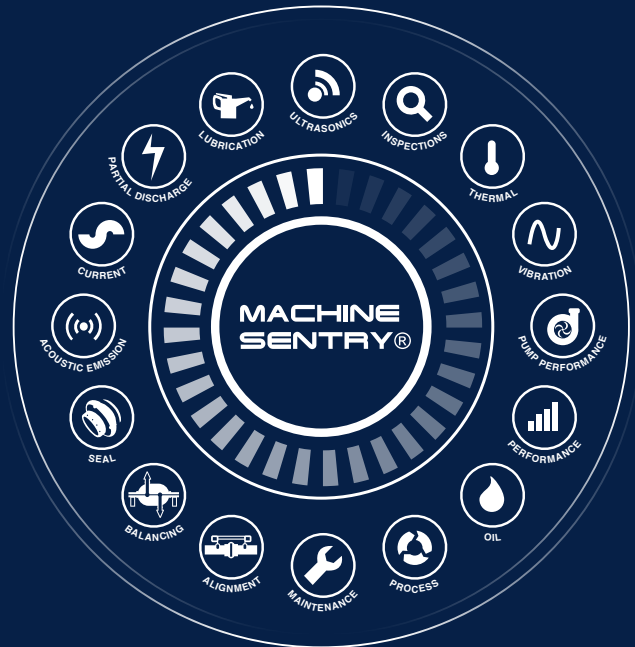
- Flexible online condition monitoring system with lubrication management, oil analysis, vibration analysis, process parameters and thermography capabilities
- Paperless system tracks all work completion, with all aspects recorded
- 24/7 online lubrication task tracking accessible anytime, anywhere, via a secure portal login
- Easy control of lubricant application and spend, with quantities tracked down to point level
- Flexible reporting allows the user to review all aspects of their lubrication program easily and quickly

Machine Sentry® - Experience What's Possible

Machine Sentry®, a unique cost effective Condition Based Maintenance (CBM) solution that integrates all condition monitoring techniques and data, to enable effective maintenance planning and management reporting.

Benefits

- Suits the needs of both expert and novice users
- Up to five times faster than other condition monitoring/lubrication systems
- Can be used either as a standalone tool or alongside an existing enterprise system (e.g. SAP, Maximo, PEMAC, etc.)
- Access to world leading condition monitoring and lubrication engineers – providing support, detailed diagnosis and advice
- Easily configurable and scalable for future expansion
- True paperless system, with user login and date and time stamp for completed activities



Typical applications

- All lubricated equipment
- Highly critical asset management
- Troubleshooting – RCA

Machine Sentry Oil Sample Report

Asset Details: APT-00001/CBM/0A/311/46337793 Hydraulic Press No. 3

Element	Unit	Result	Limit	Unit	Result	Limit
Iron	mg/kg	0.2	0.2	0.2	0.2	0.2
Aluminum	mg/kg	0	0	0	0	0
Cadmium	mg/kg	0	0	0	0	0
Chromium	mg/kg	0	0	0	0	0
Copper	mg/kg	0.8	0.8	0.8	0.8	0.8
Manganese	mg/kg	0	0	0	0	0
Nickel	mg/kg	0	0	0	0	0
Silicon	mg/kg	2.3	2.3	2.3	2.3	2.3

Asset Health: 98.4

Schedule Compliance: 86.8

HSEQ Compliance: 86.4

Machine Sentry® Lubrication Management

Machine Sentry® integrates your lubrication management with other condition monitoring data into one platform.

Machine Sentry® lubrication management system is suited for planning and recording all tasks on all asset types, such as turbines, compressors, pumps, electric motors, cranes, vehicles, etc. It is perfect for your most critical assets.

The Machine Sentry® web platform provides access to detailed lubrication data, with no historical restriction, which can be supported by condition monitoring and lubrication engineers.

Secure access is available anywhere in the world via a standard web browser. In addition the mobile software operates on industry standard Android™ tablets or smartphones including ATEX certified versions.

Machine Sentry® is the perfect platform for the total control of your reliability centred lubrication programme.

The Machine Sentry® lubrication management tool works seamlessly with the other applications within Machine Sentry®, combining all your data in one secure place.

It allows the user to set frequencies, quantities, lubricants and any usage alarms down to the individual point level for lubrication activities, work can be allocated to specific users.

Oil analysis data is imported and trended within Machine Sentry®, with the ability to set individual alarms against wear debris, contaminants and additives.



“Protect your most valuable critical assets.”

Machine Sentry® Features

Modular Cloud Based Machine Sentry® Software

– Features include: action tracking, watchkeeping, process measurements, thermal imaging integration, inspections, lubrication management, intuitive dashboard and reporting.

Vibration analysis – With intelligent tri-axial vibration measurement capability and temperature sensor (patent pending).

ADA™ Automated Diagnosis Assistant – can predict stage 2, 3 and 4 bearing failure and detect a wide range of other common fault conditions.

Lubrication management - Plan, track and manage lubrication activities and usage.

Suitable for both fixed assets and rotating machinery – The Pipework Vibration Compliance feature allows a plant operator to quickly screen all process pipework and small bore connections in order to identify lines that have the greatest risk of failure.

Oil analysis – Laboratory oil analysis data is automatically* mapped and integrated into the Machine Sentry® database for easy access by all users enabling better trending and analysis.

Key Performance Indicators (KPIs) – To systematically measure the effectiveness of the condition-based maintenance program from schedule compliance to asset health and bad actor management.

* Supported Labs only

Specification

Function	Ability
One easy to use database for lubrication, oil analysis, vibration analysis, thermal imaging, visual inspections, watch keeping and process parameters	Y
Schedule lubrication tasks down to lubrication point level	Y
Set lubricant quantity at individual lubrication point level	Y
Set lubricant manufacturer, type and grade at individual lubrication point level	Y
Customisable alarms to show when task is overdue/coming due	Y
Customisable alarms to show over and under lubrication	Y
Lubricant usage down to point level tracked and trended	Y
Lubrication ultrasonic readings stored, tracked and trended	Y
Lubricant tasks assigned to specific individuals	Y
Reports for lubricant usage, schedule compliance, action notes, asset details, etc.	Y
Image of component for ease of identification – tablet and web.	Y
Site/area schematic available to user to assist in locating an asset – tablet and web	Y
Paperless system – Android™ device/web based	Y
Barcode/RFID identification (takes you straight to the asset to be lubricated)	Y
Oil analysis data imported direct to the asset – no separate database	Y
Oil analysis alarms customisable within the database, and trended	Y
KPI information for schedule compliance and asset health	Y
Asset and component details such as Gearbox manufacturer, type, speed, bearing details, etc. stored at component level	Y



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