VEMCON

Machine Control.
Hands-On & Beyond.

VEMCON CONNECTIVITY: THE PERFECT MANAGEMENT OF TOOLS

Vemcon Connectivity

Connectivity for the best usage of your machines

Handle complexity with tool management

An excavator needs to switch tools up to a 100 times per day. It is easy to lose track of the right tool, optimal use, wear and tear. The situation gets even more difficult with an increasing number and variety of machines. Mixed fleets in particular raise complexity of handeling machines, attachements and tools that only a few skilled workers and contractors can handle. This results in inadequate machine utilisation and in the worst case in machine downtime.

Vemcon's cloud-based tool management lets operators steer their machine and allows contractors to control the entire fleet. They can avoid downtime and maximise machine utilisation as tool management can answer important questions:

- Which tool do I require for which step in the work process?
- Which machines in my fleet are currently using the tool?
- Where can I get the tool the fastest?
- What condition is the tool in?

Tool management can be applicated in a **universal way** – independent from tool, machine and application. Even the most basic version provides information about **lifecycle of tools** and enables **remote maintenance**:

- The tooltracker has a **digital tag**: geometry, name, manufacturer, year, ID, way of usage (e.g. required pressure)
- Tracking of **working hours** and **load cycles**: collection, calculation and recognition of processes
- **GPS tracking** of tool with time stamp: where and when was the tool put and how was it used

Required components of Vemcon technology platform

Different use cases require different hardware specifications. Vemcon technology platform consists of various hardware components fitting all use cases.

All valuable information is sent to the 1 **Vemcon Cloud**. It provides interfaces to every BIM system via a well-specified API (ISO 15143-3). Sending data to every fleet management system becomes easy and reliable.

The 2 **ToolTracker** measures position and vibrations at the tool. This information is used for e.g. tracking of tools and working hours or counting of shocks. Frequency, type and start of transmissions is individually configurable. The battery lasts about 5 years which makes the tooltracker a complete autonomous solution. It gets mounted directly to the attachment tool.

There are two ToolTracker versions:

- Lite: sending data only via Bluetooth
- Basic: sending data via Bluetooth and the mobile network

The 3 **Bluetooth pressure sensor** collects temperature and pressure data of hydraulic fluids. It transmits the data via Bluetooth to another tooltracker, the terminal or the mobile app.

Functions like the automatic tool recognition can be realized in combination with the 4 **Vemcon Terminal** which is part of Vemcon CoPilot. The mobile app is designed to interact with all devices at the construction site.

Simple expansion thanks to technology platform – cost-efficient and future-proof

Tool management takes full advantage of the Vemcon technology platform. Quick coupler control can be implemented cost-effectively. Modular assembly of all the necessary hardware and software components ensures interface compatibility and also seamless communication between machines, tools, attachments and the cloud.

All this lets machine **contractors** receive a cost-efficient, easily upgradable and thus future-proof tool management.

Service providers deliver productivity-enhancing digital solutions and valuable data from the current work process – ranging from quality control over tool management to excavator automation.