

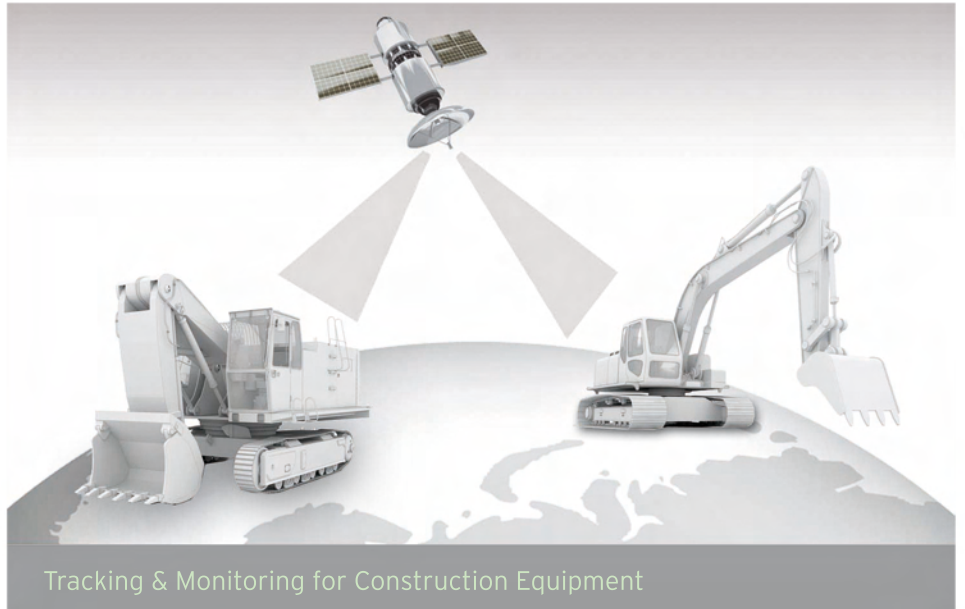
Application Story - Tracking & Monitoring for Construction Equipment

Machine Tracking & Monitoring - on track and in control at anytime and anywhere.

Tracking and monitoring systems for construction machinery allows to locate a machine fleet with pinpoint accuracy anytime as well as monitoring all important operating conditions.

This systems are used to recover stolen machines or monitor rental machines and manage their maintenance efficient.

The administration can be done easily and securely by the manufacturers or distributors with web applications.



Tracking & Monitoring for Construction Equipment

The technology: telematic solutions

The telematic solutions are based on a satellite positioning system like GPS in combination with a GSM/GPRS communication network in regions with a constant GSM connection. For regions with missing GSM network coverage, the communication will be realized by satellite systems like ORBCOMM.

Since 2007 Hirschmann already delivered more than 300.000 GPS/GSM/ORBCOMM telematic antenna solutions to all major construction equipment manufacturers in Europe, USA and Japan.



GPS / GSM low profile antenna



GPS / Orbcmm antenna with flexible rod

Hirschmann Solutions Advantages

- Full customer support in application analysis
- Customized product development
- Outstanding RF know-how
- Authority in designing coexisting multi-band antennas
- Very quick realization of prototypes achieving superior field test results
- Fast implementation of requested changes
- Automotive quality and low-cost design know-how
- High volume, high quality manufacturing capabilities
- Low manufacturing and tooling cost
- Local sales & application support and project management

Benefits of machine tracking & monitoring

- Tracing of stolen machines and recovering
- Reduction of machine stop and maintenance costs
- Daily real-time operating information
- Remote troubleshooting
- Extended machine's lifetime
- Reduction of theft insurance
- Improvement in dispatching of service personnel

Hardware requirements

- Withstanding harsh environmental conditions
- Compact and robust design requirements
- High antenna performance and reliability

Antenna solution

- GPS ceramic patch antenna (41x41 mm) ensuring a fast position-fix
- Specific antenna housing material (PA66 with glassfibre)
- High flexible antenna rods for GSM or ORBCOMM
- Nylon braided RF-cables for a maximum on protection
- Sealed cable outlet for installation on metal brackets
- IP6K9K rated according ISO 20653

Machine tracking

