



Mining Communication & Tracking Solutions



Radio Communications
Leaky Feeder Systems
Tracking and Collision
Avoidance
Training



MINECOM
A division of TR Corporation

ABOUT MINECOM

MINECOM was founded in Tasmania, Australia nearly 20 years ago to provide integrated communications and electronic equipment to the local mining industry. A winning combination of quality product and service saw the business grow to become a leading niche supplier to the international mining industry. The company today services major mining and tunnelling companies around the globe, from Australia to Poland and the US.

In April 2006 leading Australasian technology group TR Corporation acquired MINECOM, adding it to their portfolio of specialist brands offering a breadth of technology solutions for commerce and industry. The move saw the resources of MINECOM expand to include significantly enhanced engineering capabilities and a strong management direction.

OUR EXPERTISE

The MINECOM team comprises experienced technical sales staff and highly qualified communications engineers, working together to design solutions for each unique project.

Our mining expertise includes:

Consultation

Sales engineers can assist with both general advice on communications options or solutions for specific requirements, working directly with mine management or with local specialist organisations.

R&D

Always at the forefront of technology, if an existing product is not appropriate our team can engineer a new or optimized solution that meets your exact needs.

System Design

Using solutions such as Leaky Feeder technology as a backbone, MINECOM will design a system delivering voice or data communications across a site, improving safety and control. By linking these solutions to video surveillance, personnel or vehicle tracking or a collision avoidance system, operations are further enhanced with additional efficiency and safety benefits.

Installation

Our technical team will install and commission all equipment to the highest possible standards. With previous experience on both under and above ground operations, with Australia and internationally, our team work to rigorous quality and safety standards enforced by Quality Assurance procedures.

Training & Documentation

Depending on your requirements comprehensive training and documentation can be provided, ranging from simple user training to more complex technical and maintenance training.



LEAKY FEEDER

Communicating within an underground tunnel or enclosed environment is challenging, which is why MINECOM is proud of its range of highly regarded Leaky Feeder systems.

robust and flexible coverage
for underground mining

Leaky Feeder systems overcome problems often encountered with traditional above ground style antennas, such as:

- can be easily damaged
- are susceptible to corrosion
- are subject to phasing
- can provide inconsistent coverage as trucks, loaders and other equipment can reflect, deflect or block the radio signals

HOW DOES LEAKY FEEDER WORK?

Normal coaxial cable is designed to pass radio frequency (RF) signals from one end of the cable to the other with varying degrees of loss, dependant on the quality. The purpose of the cable's outer copper shield is to keep as much signal as possible inside the cable and prevent external RF signals and/or interference from entering the cable.

However the external copper shield on a Leaky Feeder cable has 'holes' or 'gaps', allowing the RF signals to leak out evenly along its length, so they can be picked up by radios nearby. The holes in the Leaky Feeder cable also enable external RF signals to enter and run along the cable.

The basic function of a Leaky Feeder system is to maintain a constant level of signal along a considerable length of Leaky Feeder cable; a solution which is both effective and reliable.

MINECOM'S LEAKY FEEDER SYSTEM

MINECOM's Leaky Feeder system has been engineered to exacting standards, utilising small inline, bi-directional amplifiers to boost the signals up and down the cable. Connection of the Leaky Feeder cable to amplifiers, branches, terminations and other peripherals is quick and easy, with no special tools required.

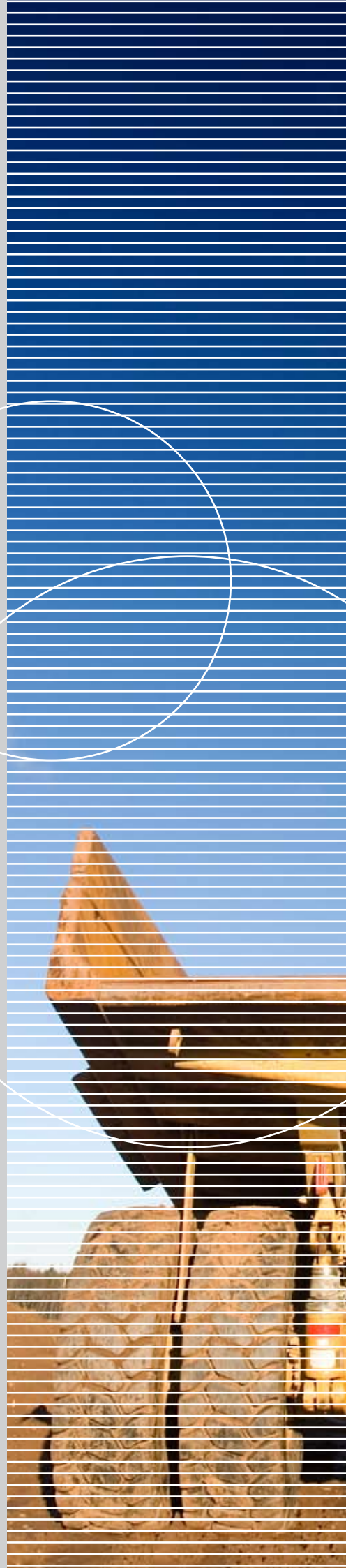
MINECOM offers three levels of Leaky Feeder solutions:

- a standard system
- a partially redundant Ring feeder system, and
- the fully redundant Smart Reverse system.

FLEXIBLE OPTIONS AND CONFIGURATION

Each system designed by MINECOM includes numerous options to enhance operational capability which will be configured to suit the individual site requirements. Options include, but are not limited to:

- Diagnostic Head Ends
- Radio to Telephone Interface
- Voice Recording
- Video TV Monitors



RADIO COMMUNICATIONS

Two-way radio is the core of most mining communications systems, delivering essential voice communications when and when it's most needed.

voice communications, when and where you need it

MINECOM have been manufacturing two-way radio equipment specifically designed for the mining industry for a very long time. Differing significantly from your standard 'off the shelf' two-way radio, our range of products are purpose built and capable of operating for long periods in one of the worlds harshest possible environments, an underground mine site. When combined with a MINECOM leaky feeder system this delivers a reliable communications solution for most sites.

Some of the reasons MINECOM radio equipment is so highly regarded around the world:

- Strict quality controlled engineering procedures
- Highest quality components and brands used
- In-field testing for 6 months prior to product release
- Meets International Protection rating IP54, for dust and water ingress
- Meets MILSPEC 810E, for shock and vibration

In addition, to compliment standard voice communications MINECOM can provide equipment options such as:

- Emergency evacuation alarms
- Man-down alarms
- Intrinsic Safety

TRAINING

MINECOM places a strong emphasis on training and support for its customers, no matter where in the world they are.

training and support to manage your system

Thus MINECOM offers a range of training and support solutions designed to suit a range of clients with differing levels of needs and budgets.

TRAINING OPTIONS

User or Technical Training

Can be conducted on an individual or "train-the-trainer" basis

Online Knowledge Base

Technical product information and a comprehensive training package (covering system operation, maintenance and preventative maintenance)

Dedicated 24 hour Support

Staffed by an experienced technician

Formal Maintenance Contracts

Providing the ultimate reassurance

NO-CHARGE System Design Service

Assisting clients with system expansions

TRACKING & COLLISION AVOIDANCE

MINECOM offers a range of specialised tracking solutions for both personnel and vehicles, designed to protect lives and valuable assets.

critical protection for personnel and valuable equipment

PERSONNEL VEHICLE DETECTION SYSTEM (PVDS)

The MINECOM Personnel Vehicle Detection System (PVDS) was developed to increase safety around large vehicles. The PVDS provides a designated safety barrier that makes the driver aware of personnel and other vehicles encroaching on the vehicle. A display within the cabin alerts the operator when a person or vehicle is within the designated zone.

PERSONNEL DETECTION SYSTEM (PDS)

The MINECOM Personnel Detection System (PDS) was developed to prevent injury and loss of life to personnel working in close proximity to vehicles and machinery or in a hazardous environment.

A single tag can serve multiple uses, such

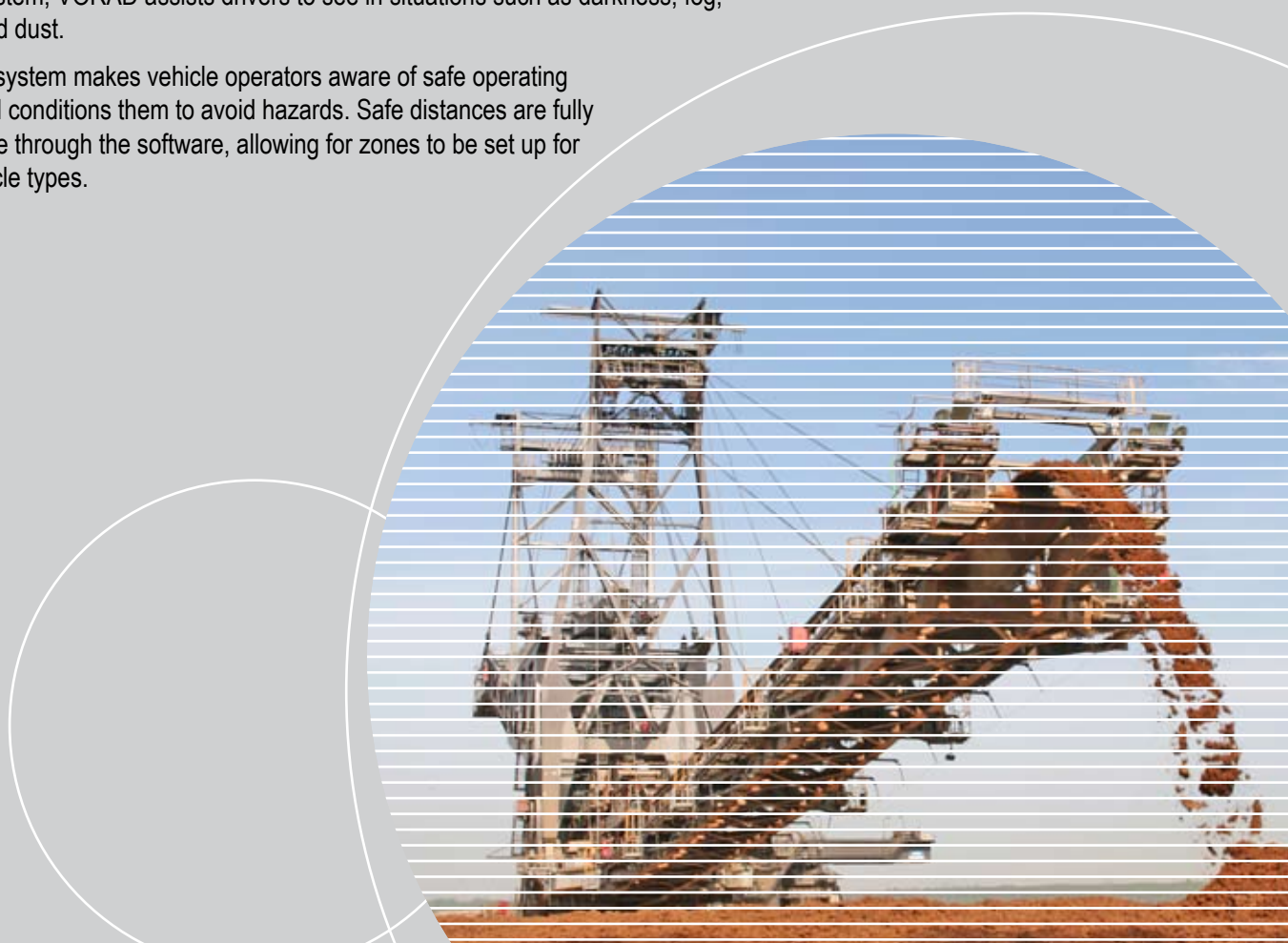
- Locating or identifying personnel, opening pedestrian gates/doors and providing restricted access to specified areas.
- Act as an early warning system for a person entering a hazardous location, automatically activating an audio warning if an individual enters the area. As a last resort, it can also shutdown the engine of a vehicle or machine.
- PDS can also control the amount of people allowed into a confined area, such as a vehicle or train.

Tags come in various ranges and sizes, with customized solutions including adding to a miner's cap lamp, sewn into clothing, placed in a pouch on a belt or produced as a swipe card.

VORAD

VORAD is a military-based technology using radar technology and sophisticated software to track up to 20 potential hazards in a vehicle's intended path. A collision avoidance system, VORAD assists drivers to see in situations such as darkness, fog, snow, rain and dust.

The VORAD system makes vehicle operators aware of safe operating distances and conditions them to avoid hazards. Safe distances are fully programmable through the software, allowing for zones to be set up for different vehicle types.



CONTACT

MINECOM has offices and authorised channel partners located worldwide. For information on our products or to find the location of your nearest distributor, contact our Head Office.

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