

SmartDose



Automatic Long Wall **EMULSION STATION**



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SmartDose

Automatic

EMULSION STATION

Accurate blending of emulsions have a direct effect on the productivity and profitability of many mining and industrial operations. SmartDose can completely automate the production of emulsion for plate rolling fluids, cutting fluids, coolants or longwall fluids in a coal mine.

SmartDose

Longwall Hydraulic

EMULSION CONTROL

Efficient and reliable dosing of Longwall hydraulic fluid maximises the operating life of hydraulic components and pumping systems. With SmartDose, efficiency and reliability has been combined with high accuracy to provide extremely stable fluid make-up.

Irrespective of variations in local field parameters, SmartDose controls 'oil to water ratio' within 0.15%, guaranteeing premium quality hydraulic fluid. Concentration is un-affected by oil tank head pressure, water flow or pressure variations, raw oil concentrations or installation position.

Mine operators employing SmartDose are provided with high quality oil consistently, and reliably, enabling enforcement of the equipment manufacturer's warranty, typically with a reduction in raw oil expenditure. One of the many advantages of using a SmartDose blending system.

SmartDose is fully automatic and requires no operator intervention, reducing mine labour costs, with existing systems currently providing greater than 98% availability.

Should the raw water line pressure or flow change due to varying demand in other sections of the Longwall, SmartDose will adjust the oil dosing rate automatically maintaining a constant output and a continuous supply of premium quality hydraulic oil.

Operation of the SmartDose system is initiated by high and low level sensors in the bulk emulsion tank. Once the low level is reached, SmartDose will automatically produce fluid of the correct concentration until regulated levels are maintained.

Consider SmartDose...

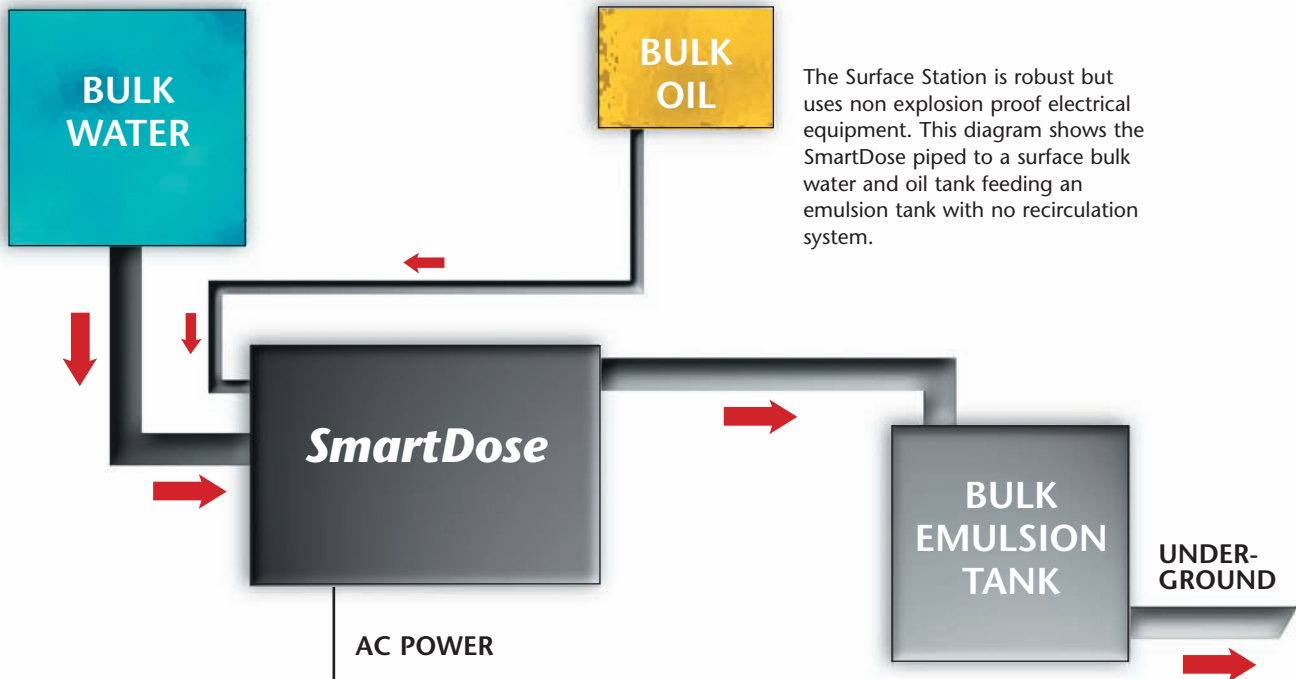
- contact **Precision Light and Air Pty Ltd**
or ask your quality Longwall Oil provider for a SmartDose system.

*SmartDose is exclusively available through Precision Light and Air Pty Ltd.
Providing a comprehensive sales, installation, service and engineering support worldwide.*

SmartDose

Hydraulic Fluid Dosing System

SURFACE STATION



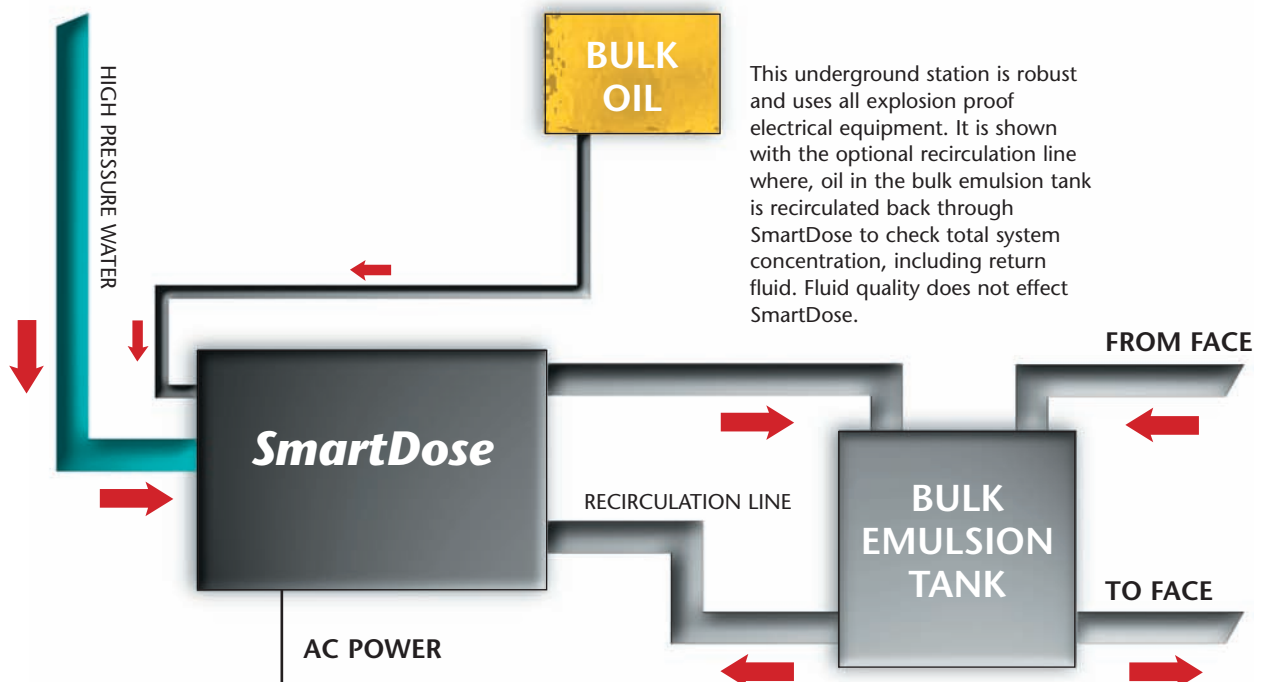
The two optional systems are shown above/below. The Recirculation system not only checks oil made up in the Bulk Emulsion tank, but, when used with a Face Return Line - continuously monitors total system concentration automatically, in real time, on line.

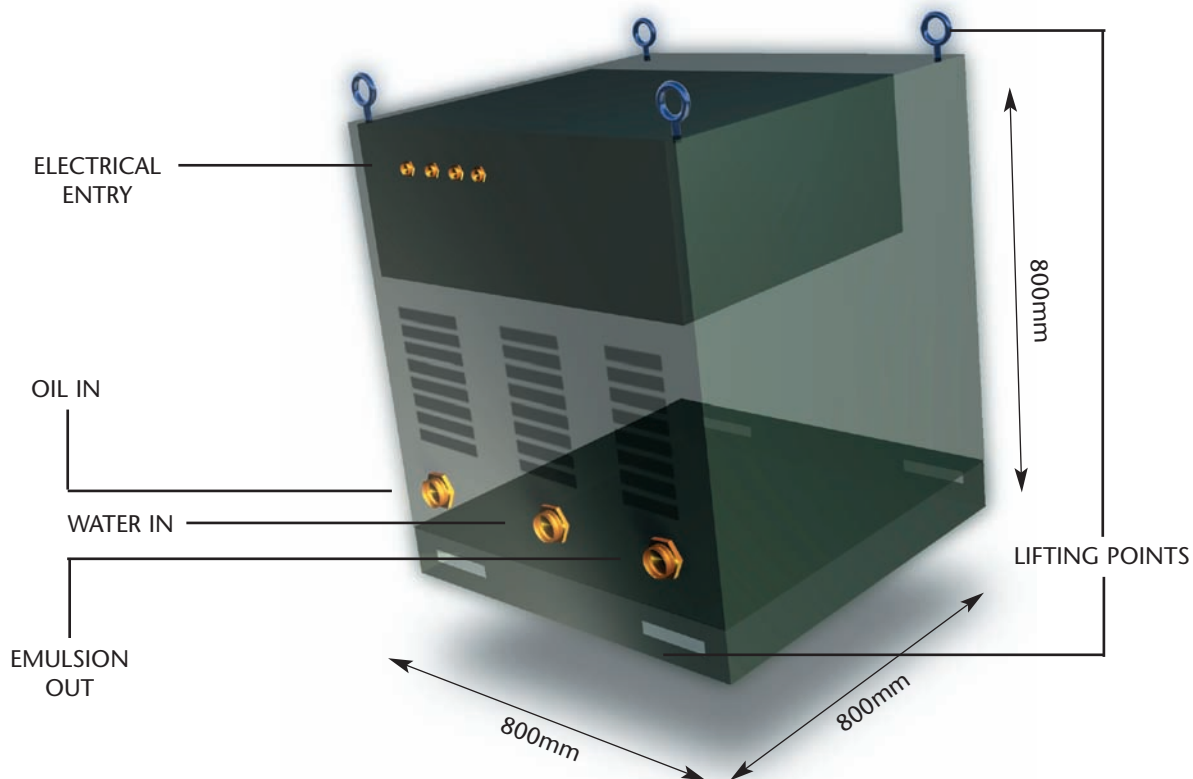
Various alarm states are also available including no water flow, no oil flow and concentration deviation. Specify your requirements when talking with Precision Light and Air

SmartDose

Hydraulic Fluid Dosing System

UNDERGROUND STATION





- FEATURES**
- Fully Automatic - No Operator Intervention Required
 - Suits Above Ground or Underground Oil Stations
 - Immune to - Tank Levels, Water Pressure and Flow, Vibration, Impurities, or Air Bubbles

- MAKEUP CAPACITY**
- 20 to 600 litres per minute

- MAKEUP ACCURACY**
- To within 0.15% Concentration (typically 0.05%)

- SET POINT RANGE**
- 1.0% through to 12.0% Makeup Concentration

- DIMENSIONS**
- Completely Modular 800 x 800 x 800mm

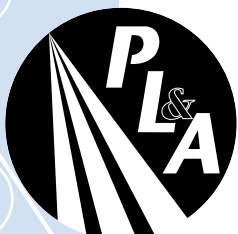
- MAINTENANCE REQUIRED**
- No Instrument Calibration, Bi-yearly Pump Maintenance only

- CONTROL SYSTEM**
- Fully Integratable in mine PLC or SCADA system to the actual Emulsion concentration. Local indication is available on non-explosion proof unit

- OPTIONS INCLUDE**
- Re-circulation Line to monitor oil made up as well as oil returning from the face
 - Various Optional Alarm Functions
 - Explosion Proof

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*Open 24 Hours Monday - Friday.
Three shifts to cover Asia, Europe, and Americas.
"We're open when You're Working"*



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