



Gladiator Acoustic Switch Series

Self cleaning blocked chute switches for transfer chutes in the mining industry.

Application problem

The Mining customer had numerous false trips causing production downtime with their microwave Blocked Chute switches.

The blocked chute switches were used to stop the conveyor belt when a blocked chute occurred to ensure that the chute did not overfill or damage the belt.

The problem was due to clay and wet fines build up, over the switches. The product was also very wet and water was continuously running off the belt and passing in front of the switches.

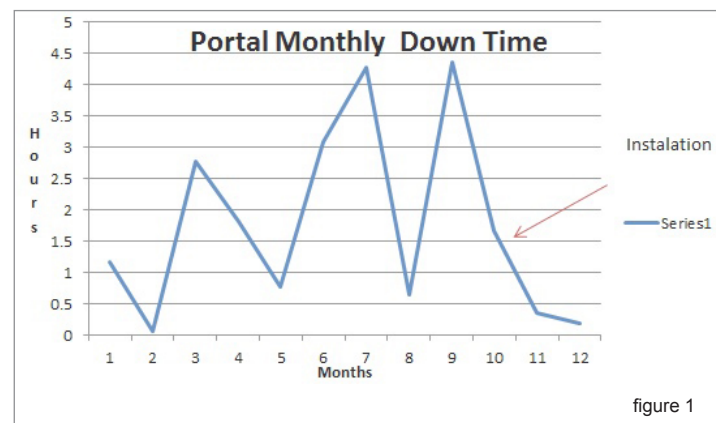
False and Intermittent trips were costing the client close to \$20m per annum.

Solution

In order to work reliably in a wet environment, that also suffers from build-up of fines and clay, we must choose a technology that is not affected by a high dielectric environment and most importantly, "WILL SELF CLEAN". We used our Gladiator "low frequency" Acoustic Switch range that atomises the moisture and build-up off the face of the diaphragms with each pulse of the transducer's (2 per second). The diaphragms of the transducers are Titanium, for greater wear resistance.

The client installed these switches on two of their problematic chutes and subsequently decreased the monthly downtime by 4.072 hours (see figure 1). Monthly production tonnage was increased by 4887 tons which amounts to a saving of \$3m per annum. The client will be replacing a number of the microwave units which will reduce the down time further.

The transducers are flange mounted and can be separated up to 500 metres (1640 ft) from the remote Gladiator Amplifier. A remote test function is available, as well as a range of communication options, ProfiBus PA, DP, FieldBus, HART, etc. 24 months money back guarantee from date of commissioning if not satisfied. Hawk is 100% Australian made.



Ordering information

GSASUS Gladiator Remote Amplifier
AWRT-JB-01 Special Junction Box
AWRT15Y4XXXC15AS Transducers - Titanium

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Acoustic Cleaning

