

Predictive Maintenance

Gladiator Microwave Switch



World's First Microwave Switch that can be used to PREDICT blockage / build-up saving considerable downtime.

This variable is available over Modbus and HAWK can provide Smart Amplifier with inbuilt Modbus to TCP / IP, Profibus or any site required protocol card.

Blocked Chute & Build Up Detection

For more information, please visit >
www.hawkmeasure.com



Predictive Maintenance

Gladiator Microwave Switch



One System, Multiple Applications

Microwave Switches are traditionally used as Blocked Chute switches. All the Microwave switches available in the market tells you that the chute is blocked. Some switches can give a false alarm and trip because of build up on the chute walls. This causes lot of downtime to the mine site costing them valuable time and money.

Reliable Feedback

Most of the mines are now looking for ways to reduce the production cost to increase their profitability. Mines are now looking at improving the reliability from field instrumentation. They want more information out of the instruments so they can optimize the process. One of the ways to increase optimization is Preventive Maintenance.

Chute Technology

Historically mines have installed HAWK Gen 3 Microwaves and reduced their downtime from false trip as these switches are able to punch through considerable amount of build up before they trip. Even with the genuine trip the site now have to carry out time consuming task of clearing the blockage, cleaning the chute and starting the belts again. This can take more than 2hrs depending on the blockage and the material.

Predictive Maintenance

Gladiator Microwave Switch



As Industry Leader

HAWK has been approached on various occasions by the mines to give them more information for instance – measuring buildup in the chute. While it's difficult to measure the actual build up size using microwave HAWK has introduced a Smart Amplifier that uses special algorithm and Signal Strength that can be considered directly proportional to the buildup.

Measurable Conditions

Mines can now TREND the Signal Strength in their PLCs to allow for preventive maintenance. If the Signal is continuously going down it is an indication that the Microwave Sender and Receiver are struggling to communicate with each other which is a sign of build up inside the chute wall.

Logic block can be set in the PLC to send an alarm when the Signal has dropped too low and the operations team can go check it and take steps before the chute blocks or the Microwaves trip because of buildup.

Predictive Maintenance

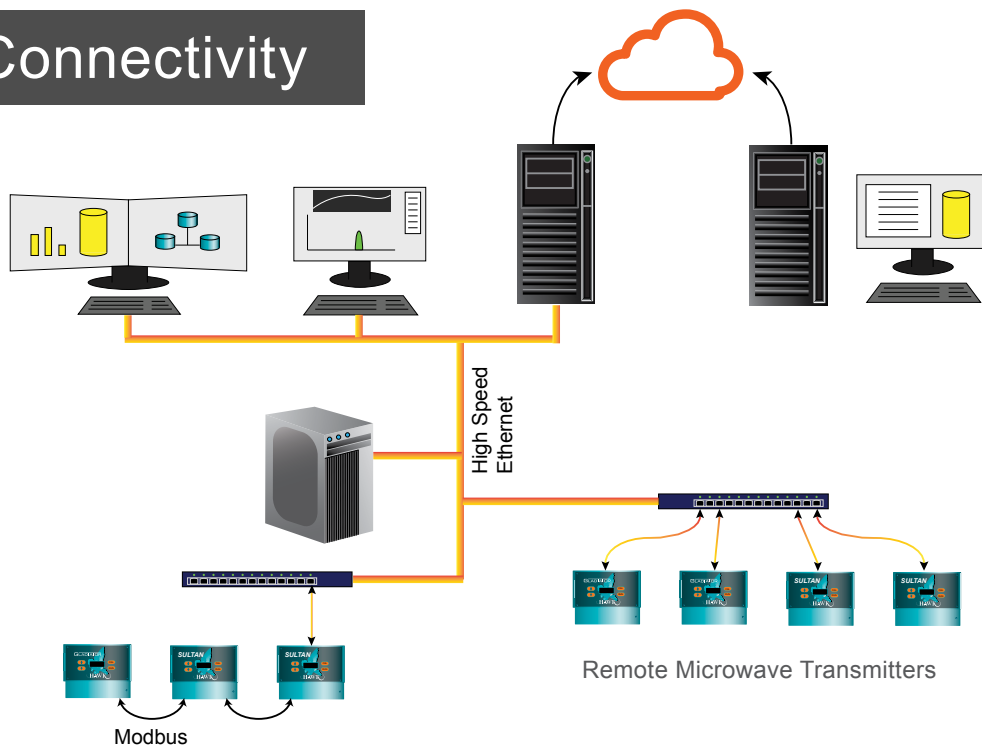
Gladiator Microwave Switch



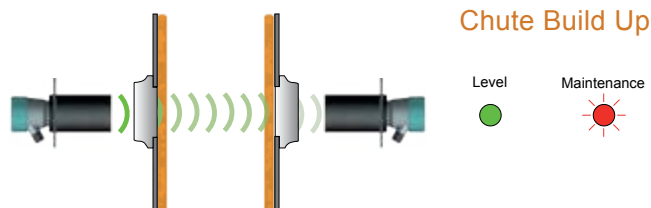
The HAWK Gladiator Microwave is designed to accommodate for these conditions. The world leading receiving circuitry detects and amplifies the diminished signal. Using HAWK's Signal reading this is a measurable condition.

HAWK is able to use a relay to notify operators the chute requires maintenance before an emergency occurs while using high speed communications to transmit the Signal data live.

Versatile Connectivity



Anticipate & Plan



During normal operating conditions, chute walls will begin to build up with fine materials which increases the **risk of blockages, spillages and unplanned downtime.**