



A higher level of performance

## Application Reference

# Reliable level measurement for crusher control

### Application problem:

Customers require the level of rock within a crusher to be reliably controlled within a known range, reducing operator workload or reducing the number of operators needed to oversee a plant. Feed into Primary jaw crushers needs to be controlled from the level in the crusher to prevent overflowing the jaw cavity, and to detect when material has become jammed in the jaw entry, preventing normal flow.

Secondary and tertiary cone type crushers show extended life of parts and lower maintenance costs when they are 'choke fed' -where the bowl is always filled to a level with material. Rock will be crushed more evenly to a uniform size by an evenly loaded (choke fed) crusher. Control of feeder rates to keep crushers choke fed, and prevent overflow or bypassing of excess material from an overfull bowl is essential to optimizing plant throughput and reducing costs.

Crushing systems generate high vibration, noise and dust levels, and also often include water spray systems. In these dirty, unfriendly environments laser, traditional ultrasonic and radar products have difficulty operating reliably, and contact level products such as guided radar (TDR) or capacitance cannot be used as they will quickly be destroyed by the normal flow of product.

### Solution:

Hawk's powerful 20kHz remote acoustic wave level sensors are installed above the bowl or jaw, monitoring the level of material and providing reliable switch contact, continuous 4-20mA, or communications outputs to the control system. Acoustic isolating flanges and impact resistant polyurethane cones are used, ensuring long term reliability. The remote display unit is installed in a convenient position in a control room, switch room or panel, giving easy access for setup, configuration or monitoring.

### Ordering information: (complete system):

AWR234SUXXXX  
AWRT20T4XXXC6XX  
FA4A-4  
C04-8

*Hawk is a world leader in level, position and flow measurement, providing cutting edge equipment to the global industrial market. We have 30 years of experience and a record of success in a wide range of areas including mining/mineral processing, water supply/waste water, bulk material handling and chemical. Our on-going commitment is to provide industry leading technology and cost effective solutions.*



**Application guaranteed!**



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