DENSITY MEASUREMENT FOR CYCLONE MONITORING FOR MINING APPLICATIONS

Ronan Measurements Division supplies the process control industry with leading-edge Radiometric Measurement Systems that provide non-contact measurement solutions for the harshest environments.

RONAN'S X96S DENSITY MEASUREMENT SYSTEM

Application

Cyclones are typically used for desliming to upgrade cement rocks, sizing of abrasives, pigment classification, ore upgrading, ash separation in coal, sizing of phosphate rock and sand.
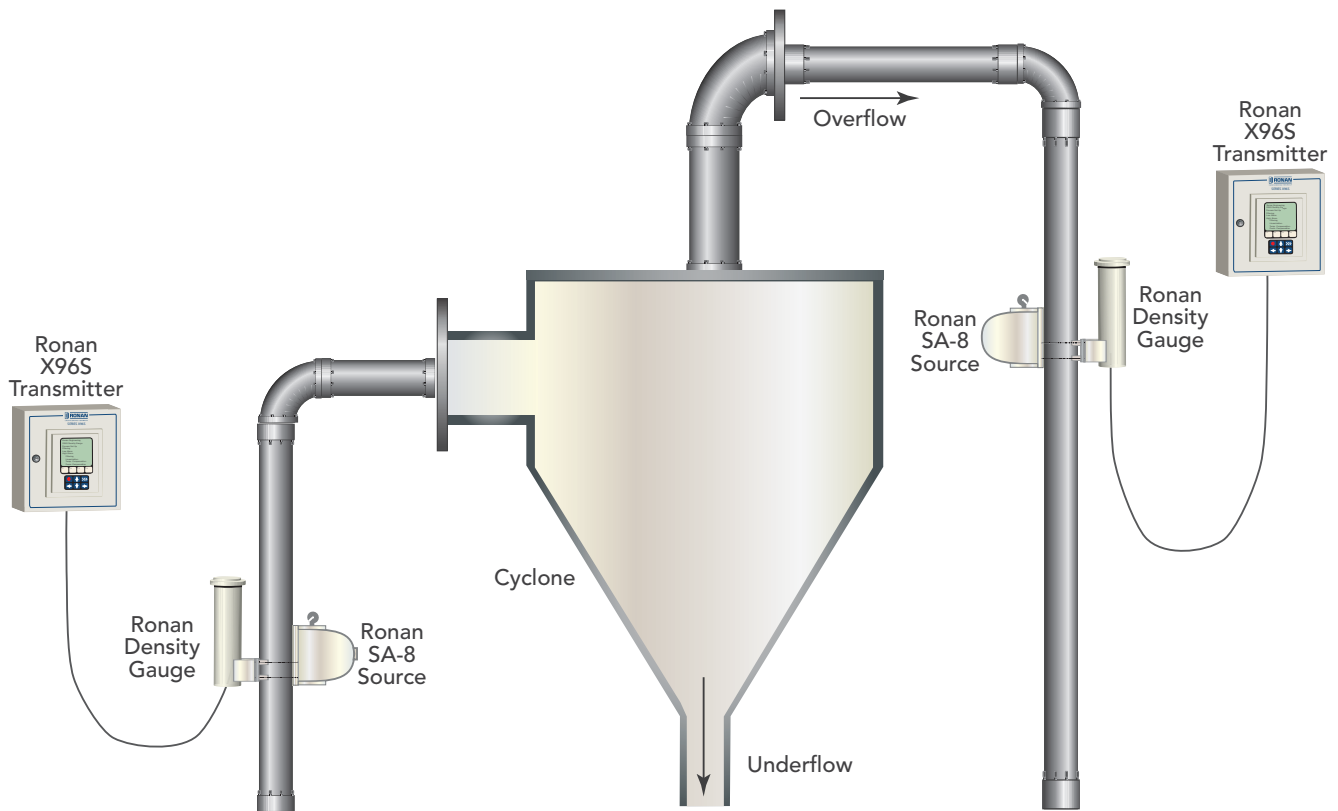
Problem

In a wet cyclone classifier, slurry is fed into the top where centrifugal motion separates the heavy particles from the stream. The light particles float to the center and ar taken away at the overflow where they are monitored by Ronan Series X96S Density Gauge.

Solution

The heavy particles fall through the underflow. An X96s Density Gauge at the feed line is used to monitor and control percent solids for efficient cyclone operation.

Summary

The Ronan X96S Density Gauge is an easily installed, accurate system with low maintenance requirements. With the X96S system, the user can be assured of getting an accurate measurement.

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Ronan SA-8 Source Holder

The SA-8 is a rugged, general purpose source holder suitable for a wide range of applications requiring an externally mounted source. The SA-8 provides shielding which meets all international standards for radiation limits, and accomodates source activity up to 5 Curies (185 GBq) CS-137 or 18 mCi (0.67 GBq) Co-60.

Features:

– Ductile Iron cast with epoxy paint; also available in Stainless Steel and PVC-coated ductile iron
– Lead free option available
– Fireproof design available
– Manual rotary shutter standard; shutter position indicator contact output, air or electric actuated shutter with position indicator contact output optional.

RLL Low-Level Source

Ronan is the only manufacturer to offer the revolutionary Radiation Low-Level (RLL) Source Holder. The RLL uses up to 100 times less gamma energy than comparable gauges, and is the only source holder recognized by the NRC to be so safe that it does not require the stringent documentation, training or handling procedures of other systems. The gauge can be relocated by your personnel, without a licensed person present. The System, using the RLL Source, can accurately measure pipes up to 16" with no reduction in accuracy.

Scintillation Detector

Ronan pioneered the use of solid crystal scintillation detectors more than 20 years ago, and now has an installed base in the thousands across a wide variety of applications worldwide. Ronan employs two types of crystals, Scintillating Plastic Crystals for standard applications and Sodium Iodide scintillating crystals for ultra low-level fields. Scintillation Detectors provide efficient detection, enabling the use of lower-level sources. Ion Chamber detectors are also available for extremely high vibration applications.
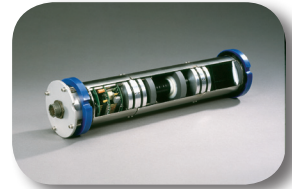
X96S Series Radiometric Transmitters

The X96S series of Radiometric Transmitters offer calibration and configuration in a simplified format. They provide flexibility and inherent stability of digital processing to process measurements. The diversity of the design enables the customer to choose from a self-contained unit mounted remotely from the measurement, a blind transmitter with various communication options, or any combination in between. The X96S Transmitters are modular in design, enabling the measurement computer to be tailored to the application requirements. Push-button programming is obtained through the LCD Graphic Display. All programming prompters are in English, with help screens available almost eliminating the need for a manual. Various board configurations accept multiple digital or analog inputs from ion chambers or scintillation detectors, as well as analog or discrete inputs and outputs. Serial communication is available in multiple formats including the HART® format.

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EXCELLENCE IN MONITORING AND MEASUREMENT