ALUMINUM ROLLING / COLD ROLLING

THE OPPORTUNITY

In cold forming and cold rolling applications where temperatures to be measured on metal surfaces start at ambient, temperature measurements using contact-type sensors are often impossible. Users must be aware however that uncoated, bright metal surfaces have a very low emission but very high reflection in the infrared spectrum. This is why non-contact temperature measurement is possible only in controlled conditions and calls for professional consulting services.

The customer base supplied by aluminum rolling mills takes a wide variety of products such as plates, foils and strips, demanding the highest quality products. To roll high-grade products the decisive difference is the precise temperature control. If the required temperatures are precisely maintained, the product quality can be assured and damages to the roll stand will be avoided.

Rolling aluminum results in temperatures which are quite differing. In a first step, the block to be rolled is preheated to 200 °C. Entering the rolling mill, the aluminum block has a temperature of around 450 °C. Exiting the rolling mill, the temperature drops to below 100 °C.

OUR SOLUTIONS

Cold rolling and rolling aluminum is done at very different temperatures - depending on the processing step. Different pyrometers can be used depending on the temperature and the application area.

Measurement after preheating

Temperatures approximately 200°C.

- IGA 140/23
- IPE 140

Measurement at the beginning of the rolling mill

Temperatures approximately 450°C.

- IGA 140/23
- IPE 140
- IGAR 12-LO

Measurement at the end of the rolling mill

Temperatures can be below 100°C.

- IGA 140/23
- IPE 140

Advanced Energy's Impac 140 series

Advanced Energy's Impac IGAR 12-LO

YOUR BENEFITS

- Continuous process temperature monitoring (starting at about 20°C on bright metals)
- SDocumentation of process/tool temperatures
- Closed-loop control possible via temperature measurement
- Continuously high product quality
- Reliable temperature measurements on moving part

Advanced Energy

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