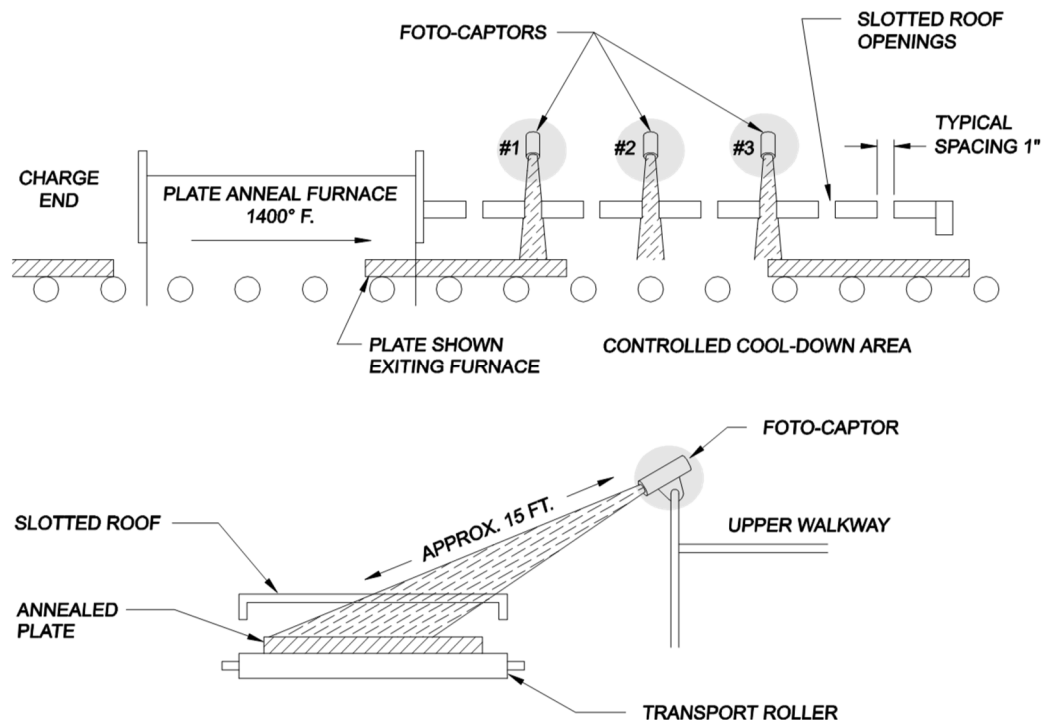


Reliable tracking through anneal furnace cool-down zone

INTRODUCTION

The environmental conditions in the steel industry are a challenge for any type of control equipment. High temperatures, vibration, excessive dust and contamination are setting the limits for standard equipment. Our sensors have been designed and carefully built to meet the specific demands of the steel industry.



PROBLEM

In order to roll the slabs into sheet or plate they are passed through the annealing furnace to soften the steel. This "softening process" makes the steel more workable and easier to roll. As the slabs enter the annealing furnace and travels through, there are times when a slab can hang up in the cool-down area. The slabs cannot be seen and actual verification and tracking is not possible.

SOLUTION

The foto-captor system can prevent this problem. A foto-captor is installed for the purpose of keeping track of the slabs. This unit has a response temperature of 450°C/840°F, a viewing angle of 2° and a scanned area of a 3" diameter circle at a distance of 2 meters. The solution to this problem is to install equally spaced foto-captors to view the plate position through roof slots and send a reference signal to the control computer program. As the slabs pass through the furnace, the foto captors will light in a sequential fashion. If a jam does occur, the sequencing will be interrupted and an alarm will sound. For maximum performance and reliability, Weber foto-captors are designed to withstand the harshest environmental conditions.

BENEFIT

Tracking these slabs with foto-captors, results in a highly efficient and economical process, preventing equipment damage and unnecessary down time.