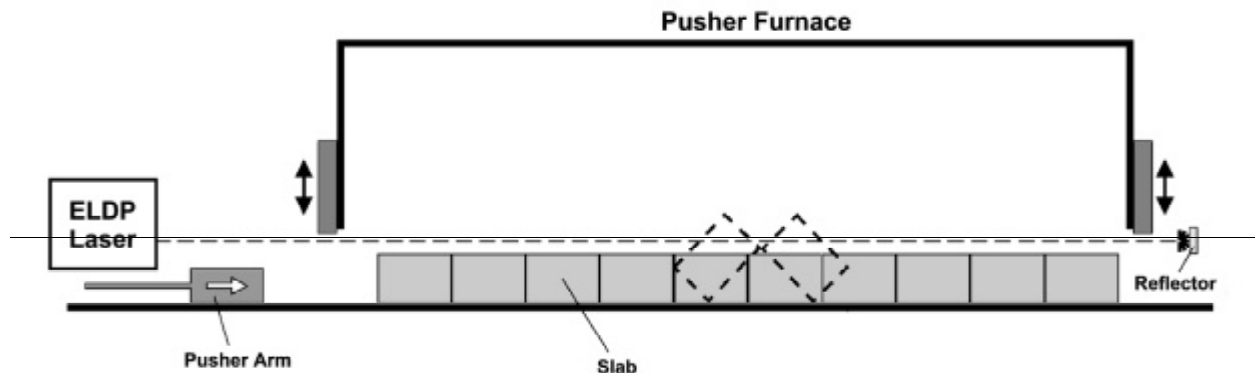


ELDP LASER DISTANCE METERS - APPLICATION NOTES

Application: Preventing slabs from piling up in a pusher furnace



Description: A slab is pushed in on one side of a pusher furnace which sends one slab out on the other side. Sometimes, slabs happen to pile up inside and damage the furnace. The furnace then has to be cooled down for repair and re-heated, meaning downtime for several days and financial losses for the steel mill. In most of the cases water-cooled CCD cameras are used and operating staff observes what is happening inside the furnace on a monitor. This is tiring work, and a pile-up can easily be overlooked.

Solution: The ELDP Laser measures through the opened furnace to a reflector. The laser beam is aimed at the reflector so that it runs just above the slabs. If the slabs pile up, the beam is interrupted, i.e. the distance measurement deviates, and this is detected and displayed.

Advantages:

- simple installation
- no receiver necessary
- no elaborate cooling as installation is outside the furnace
- monitoring range can be limited to the interior of the furnace by two adjustable setpoints
- high functional reliability with self-test and reference measuring to a reflector or natural target.

MODULOC[®] Technology - The Total Laser Solution