

## Crane Sentry® Collision Detection

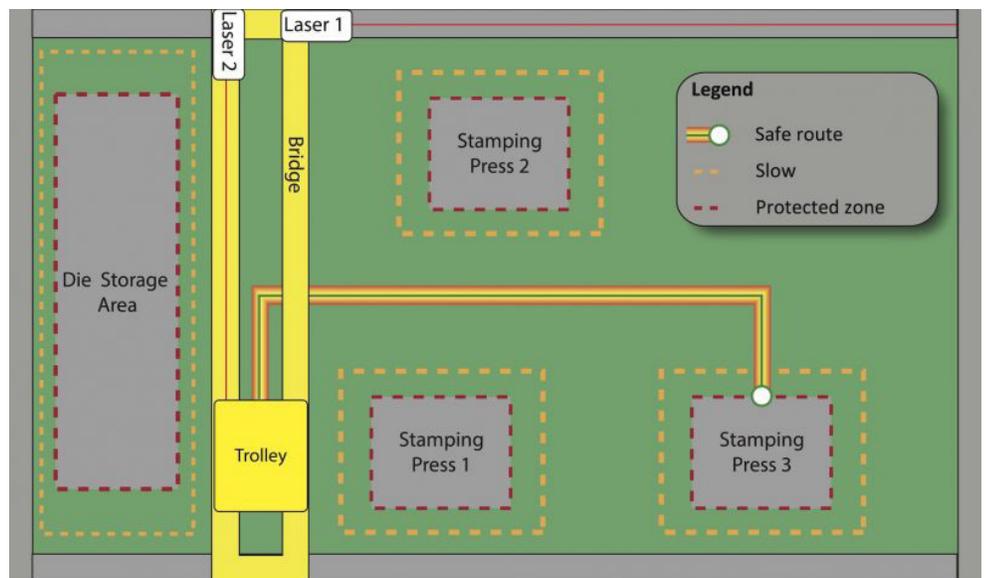
Consider the potential safety concerns, downtime and costs faced when an overhead crane, such as the cranes that handle die changes at a metal stamping facility, collides with equipment on the production floor. Many of these facilities have massive stamping presses, with low overhead clearance and difficult sight lines above the presses.

The objective in this scenario is to prevent risky materials handling activities, like maneuvering a crane with a suspended load over very tall machinery with difficult sight lines. Laser-View Technologies has helped solve this very problem in metal stamping facilities, and other industries, with the right combination of materials handling expertise, a Crane Sentry® controller that provides the ability to set protected zones around machinery or any other designated areas.



### OVERVIEW

Metal stamping press die in transit to stamping press 3 on a typical production floor, showing overhead crane, equipment, and areas monitored and protected by a Crane Sentry® Zone Manager. In the example shown, Crane Sentry® prevents the high risk "direct route" over Stamping Press 1.



## METAL STAMPING FACILITY CRANE COLLISION MONITORING

# Challenges

It's not difficult to imagine what would happen if an overhead crane carrying valuable materials or a costly die collided with a press or other equipment located in the production area. Laser-View Technologies has helped solve this very problem, both in metal stamping facilities and in other industries.

Many of these facilities have massive machines, with low overhead clearance and difficult sight lines above the equipment. Also consider the added complication of the variables introduced by autonomous equipment, such as a robotic arm that normally remains below the level of the bridge crane hook or load, but which can suddenly change elevation into the path of an oncoming crane.

Although the physical layout, distances separating machine work centers, and other variables that must be accounted for change from facility to facility, the best solution is always the same: prevent a potential collision from happening.

### SOLUTION

The objective in this scenario is to prevent risky materials handling activities, like maneuvering a crane with a suspended load over very tall machinery with difficult sight lines. The Laser-View Technologies solution includes laser distance sensors, which for this application typically would be mounted near the Crane Sentry® controller on the crane bridge aimed at flat target plates mounted on the wall and trolley. Options are available form overriding the crane for press maintenance.

### RESULTS

The Crane Sentry® controller prevents both unintentional entry of the bridge crane into protected areas and risky materials handling activities like maneuvering a crane with a suspended load over very tall machinery with difficult sight lines, but was also able to permit overhead crane entry into protected zones as necessary to allow positioning of machine dies during die changes.



## Key Application Notes

- ⊕ Teachable No-Fly zones are present
- ⊕ Automatic slow zones around or in between presses
- ⊕ Interface with machinery via wireless I/O
- ⊕ Simple installation, low maintenance
- ⊕ Relay outputs for interface with VFD