



## Crane Technology

In many instances the cost of a bridge crane can be largely offset with savings from not renting mobile cranes in the construction of a facility that uses a lot of heavy process equipment.

An overhead crane, commonly called a bridge crane, is a type of crane found in industrial environments. An overhead crane consists of parallel runways with a traveling bridge spanning the gap. A hoist, the lifting component of a crane, travels along the bridge. Unlike mobile or construction cranes, overhead cranes are typically used for either manufacturing or maintenance applications, where efficiency or downtime are critical factors.

A gantry crane is a crane built atop a gantry, which is a structure used to straddle an object or workspace. They can range from enormous "full" gantry cranes, capable of lifting some of the heaviest loads in the world, to small shop cranes, used for tasks such as lifting automobile engines out of vehicles. They are also called portal cranes, the "portal" being the empty space straddled by the gantry. The terms gantry crane and overhead crane (or bridge crane) are often used interchangeably, as both types of crane straddle their workload. The distinction most often drawn between the two is that with gantry cranes, the entire structure (including gantry) is usually wheeled (often on rails).



## Why Sinetamer?

Technology is tremendous when it produces the results promised. However, engineers and technicians are left with the challenge of discovering why their systems fail to optimally perform even after the recommended installation of surge suppression, oft-times at behest of the OEM.

The typical surge suppressor is voltage triggered only. This typically occurs at some set point above/below the sinewave. These operations, while successful in mitigating the damaging impacts of lightning or utility company events, are for the most part useless when dealing with the real source of the problem. There is finally a solution. The unique Frequency Attenuation Network™ contained in Sinetamer® circuitry provides the security and reliability demanded of by today's electronic infrastructure.

## Results in Action...

Steel recycler in Ecuador invested heavily factory automation for its facilities. The utilization of overhead cranes was crucial to the movement of steel in their casting lines. As with any automated facility downtime is costly. Crane downtime often exceed 3 hours. After completely replacing one brand of VFD's that were assumed to be non-industrial related for another brand, only to experience the same failures, a decision was made to investigate further the quality of power.

Following implementation of cascaded Sinetamer® units the downtime virtually disappeared and the ROI was calculated to be approximately 20 minutes. Production improved and inventory levels of replacement drives were reduced 80%.





*“we ARE the standard”*

The experience was a bit different in a rolled steel factory in Brazil. In this instance the facility was experiencing burnt charger boards in the UPS units that were working in conjunction with the electromagnet cranes. The survey recommended a Sinetamer® unit at the battery charger and the input to the rectifier for the electromagnet.



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Within 30 days management reported significant improvement in the productivity of the bridges. With fewer stoppages and deprogramming incidents the return on investment was 20 days. All 30 cranes were then equipped with two units per crane. The facility engineers were able to focus their energies on running the facility rather than chasing problems like crane downtime.

Additionally, we have supplied units to multiple port/crane operations. In addition to the Panama Canal, a particular port key for food import/export. This particular port moves about 50 containers per hour.

Within 2 years of implementation they began experiencing loss of drives and plc's on the cranes. With losses mounting a survey by our distributor revealed 6 locations that should be addressed.

The results were nothing less than extraordinary. Not only was the ROI calculated to be at about 30 days, but over the next 2 years the inventory of drives, PLC's and other electronic components were reduced by 90%! The success here led directly to the complete protection of the other port cranes.

These stories come to us virtually every month from one of our clients or distributors in more than 40 countries around the world.

The important lesson is that even though crane manufacturers design an industrial ruggedized device for global distribution, there are enormous differences in the electrical environment in which they are installed. By no means does that negate the quality of the device, it only goes to further in force that regardless of the superiority of the design of any electronic equipment in the 21st century there remains the necessary steps of providing the optimal 21st century surge protection device. That device is Sinetamer®.

