

Bosch IP Video Solution Cements Smooth Operation of Ready-Mix Concrete Plant



BOSCH

Invented for life

Industry:

Industrial

End User:

Rohrer's Quarry, Inc.

was founded more than a century ago in the middle of one of the largest limestone deposits in Pennsylvania, producing agricultural lime for surrounding farms. Midway through the 20th century, a ready-mix concrete plant was erected, and today, Rohrer's Quarry delivers ready-mix concrete to customers surrounding Lancaster County, Pennsylvania using a fleet of clean transit mixers. The mission of Rohrer's Quarry is to provide the highest quality concrete, stone and related products at competitive prices with dependable and courteous service.

Business Objective:

Rohrer's Quarry needed a video surveillance solution to oversee operations at its new ready-mix concrete plant erected this year. The plant features three 200-ton cement silos, six compartments containing a total of 340 tons of aggregate, and a 430-foot vertical curve conveyor. The video system was required to help the plant operator monitor several locations that are essential for proper mixing of concrete and for discharging it into awaiting trucks.

Solution:

Eleven Bosch FlexiDome IP Day/Night cameras now stream video of the most critical points inside the plant - showing crisp images and a high-level of detail of areas where conveyor belts unload onto other belts and where the concrete contents are poured into the mixer. Outside the plant, cameras are positioned to view the location where concrete is discharged into the Quarry's 20-truck fleet of transit mixers. A camera installed on the roof of the building that houses the plant also provides surveillance of the surrounding property.

Due to conditions inside the plant, Rohrer's Quarry requested a durable and long-lasting surveillance system. FlexiDome cameras feature a clear polycarbonate dome bubble with a UV blocking anti-scratch coating and can operate in temperatures from 14 to 104 degrees Fahrenheit and in 20 to 80 percent relative humidity. The cameras are also IP54 and NEMA-3R rated against dust and water ingress, providing protection from conditions common within a concrete-mixing plant.



Rohrer's Quarry has implemented a Bosch IP video solution to oversee operations.

The cameras stream video for 24-hour observation to Bosch's VIDOS Video Management System, which is used by the operator to control cameras throughout the plant. Using the VIDOS Monitor Wall application, video from the cameras is displayed in real-time on two LCD flat panel monitors in the plant's central control room. From the control room, the plant operator and dispatcher can see trucks in the staging area waiting to be loaded and can keep track of vehicles that enter the Quarry.

Result:

The system allows staff to oversee areas where aggregate and sand are discharged onto the conveyor, a function important for smooth operation of the plant. It also helps the Quarry's dispatcher position trucks under the mixer's discharge chute, assuring greater accuracy when loading them.

"The cameras have been invaluable in what they allow us to see throughout the plant. They are a great tool in helping us do our jobs better and faster," explains Travis Rohrer, a co-owner of Rohrer's Quarry. "We required clear images from reliable cameras that can withstand the dust and heat within the plant. We found all of these qualities in the Bosch line."

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