A Picture is worth a thousand words at Carling. Remote monitoring solution saves manufacturer time and money.

**Mission**
With manufacturing facilities outside the country, it was neither cost effective nor efficient for Carling Technologies to send personnel from headquarters to conduct in-person inspections of parts and products. Carling was looking for a solution that would produce images of sufficient quality and resolution to permit remote viewing of parts.

**Solution**
Axis network cameras produce live, high-resolution images, enabling remote personnel to see particular parts and products that are being discussed during conference calls.

**Result**
Carling Technologies has saved a significant amount of time and money by having the capability to immediately address issues remotely rather than shipping parts back and forth or traveling to the various locations to inspect parts. In addition, Carling was able to easily set the camera up using their existing network, incurring little in the way of additional costs.
"Quality by Design"

Founded in 1920, Carling Technologies, Incorporated (www.carlingtech.com), is one of the world’s largest manufacturers of electromechanical switches, circuit protection devices and electronic control systems for the appliance, transportation, electronics, commercial facilities control, industrial controls and factory automation markets. With over 3,000 employees, Carling Technologies’ headquarters and ISO 9001 certified manufacturing facility is located in Connecticut with ISO 9002 manufacturing facilities in Texas and Mexico as well. Construction plans for another facility in the Far East are currently underway.

Carling’s ability to evolve—and succeed—within a technological landscape that has radically changed in the eighty years it has been in business can be attributed to the company’s unwavering focus on quality. Carling refers to this commitment as “Quality by Design,” an operational philosophy that pervades all aspects of the manufacturing process.

As a component of Carling’s “Quality by Design” program, the company created a system whereby any issue concerning parts quality could be identified and resolved in the most time-efficient manner possible.

A visual solution

On occasion, component parts arrive at the manufacturing facilities either flawed or damaged in some way. When this occurred in the past, personnel at the manufacturing plants had to try to explain the nature of the damage or flaw verbally and/or ship the part back to engineering, incurring significant costs and holding up production in the process.

After seeing the Axis network cameras advertised, Engineering Systems Administrator Jeffrey Stull initiated the installation of Axis network cameras at each of the four Carling facilities.

Now, during the weekly conference calls, the part—or anything else that benefits from visual display can be placed before the camera. With the camera’s high-resolution images and some supplemental lighting, even the smallest imperfection can be discerned.

A picture is worth a thousand words

“A picture is worth a thousand words,” says Stull. “I can try to explain something until I’m blue in the face and still not adequately convey the problem. But with this system, understanding is instantaneous. And we’re saving money—both in terms of shipping costs and the time spent trying to explain a particular problem.” Adds Stull,

“The resolution of the images the camera produces is so remarkable that even though the parts are small, the person on the other end can clearly see what the issue is. This has made a huge difference to us.”

With future plans for a new manufacturing facility in the Far East, the solution based on Axis network cameras will assume an especially critical role. Not only will this facility be even more remote—making travel back and forth time-consuming and costly—but also communication among sites may involve three languages. So for Carling Technologies, a picture is indeed worth a thousand words.