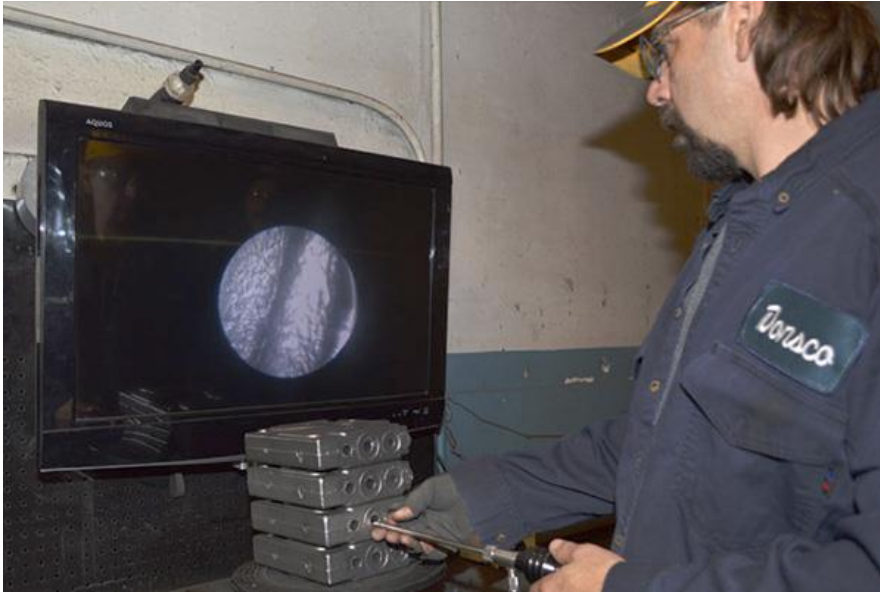


USER CASE STUDY

Donsco, Inc



A Vision for Quality

Located in Wrightsville, PA, Donsco, Inc. is North America's leading single source provider of machined iron castings. The company has been in continuous operation for more than 100 years.

Family-owned since 1906, Donsco operates two foundries which produce short run and longer running gray, ductile, and alloyed iron castings up to 150 pounds in both horizontally and vertically parted molds. The Wrightsville campus also includes extensive in-house machining and patternmaking operations.

Recently, Donsco Customer Service Manager, Matt Sevcik, addressed the critical importance of visual inspection in the company's Quality Assurance process, and how those procedures are also integral to customer service. "We turn around most RFQs in 48 hours or less and can usually transform a casting model into new tooling, and new tooling into prototypes, in just a few short weeks. Our key customer service goal is to dependably deliver castings and machined parts 95+ percent on time with best in class lead times," Sevcik said. "The parts we produce are used primarily in pumps, compressors, and agriculture. These are what we consider mission-critical applications. Therefore, to maintain quality, and meet such fast delivery schedules, we have a policy of external and internal visual inspection of 100% of the parts we produce. Even in the case of complex castings, we conduct borescopic internal inspection on 100% of those parts as well."

"The 6.4 mm diameter Hawkeye Hardy scope gives us plenty of light inside any of our parts..."

Matt Sevcik, Customer Service Manager

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USER CASE STUDY

“We maintain two, dedicated borescopic inspection stations, operating continuously,” Sevcik said. “We primarily use Hawkeye Rigid Borescopes made by Gradient Lens Corporation. The 6.4 mm diameter Hawkeye Hardy scope gives us plenty of light inside any of our parts, and you can use the scope looking straight forward (0° DOV), or, by adding the mirror tube, you can look directly sideways (90° DOV). So, for us, these rigid borescopes are durable and versatile,” Sevcik said.

The technical capabilities of professional borescopes have increased greatly in the last several years. Now video cameras can be easily attached to rigid and flexible borescopes allowing fully-portable, on-screen viewing and image capture of both still photos and video footage. Those images and video can be stored on any laptop or desktop computer, documented, and emailed. At Donsco, borescopic inspection stations include video camera connections to rigid borescopes and the use of large LCD monitors. Viewing inspection images, 8 hours a day, on a large LCD display greatly reduces the operator’s eye, neck, and back strain.

So, why institute such a comprehensive visual inspection process at Donsco? “There are several reasons.” Sevcik said. “However, first and foremost, so many of the parts being inspected are used in mission-critical transportation applications. Any cast surface inside hydraulic valves, for example, must be free of defects or blockages. That direct visual confirmation of quality is critical to eliminating the potential for valve failure. Visual inspection can also quickly detect burn-in sand, and metal fins.”

Donsco also leads in the depth and breadth of its manufacturing capabilities and technical support organization. The company produces a wide range of typical cast and machined parts, as well as some of the most challenging and complex castings imaginable from all classes of gray iron, ductile, and austempered ductile irons, and Hi Silicon Moly alloys, to intricately cored hydraulic valves, turbocharger housings, and manifolds. To ensure manufacturing effectiveness and strong customer support, Donsco maintains the quality, engineering, and manufacturing support personnel needed to ensure the smooth operation of each of its facilities.

All of Donsco’s systems, especially quality assurance procedures, are structured to support the company’s Speed-To-Market initiative. The company has engineered this process for a Single-Piece Flow. It is vertically integrated from pattern build to finished product. However, maintaining these schedules clearly requires fast, accurate, quality assurance reports, increasingly based on direct visual inspection.

“many of the parts being inspected are used in mission-critical transportation applications”

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The logo for Optimax features the word "Optimax" in a white, sans-serif font. A thin horizontal line is positioned above the letters "i" and "m". A small circle with a crosshair is centered above the letter "i".