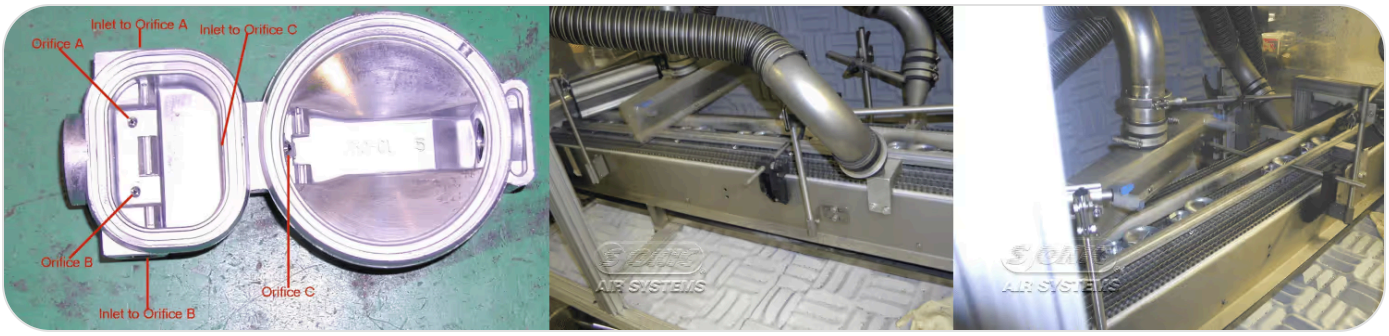
← CASE STUDY ARCHIVE

Sonic Rotary Air Knife System for Precision Parts Drying



Overview

Marshall Gas Controls is a leading manufacturer of regulators for the RV and outdoor cooking industries. Their newly patented regulators have improved efficiencies and BTU ratings, but they are difficult to dry after washing prior to inspection and assembly for leak testing.

The previous manual blow-off process was not effective in precision complex parts drying, resulting in failures caused by inadequate drying parts before cmm inspection. The smallest valve orifice size is 0.006 inch (0.15mm) in diameter, making it difficult to reach and dry completely. Additionally, surface abrasions on the gasket area of the machined casting could occur during the handheld blow-off process, leading to test failures during the pressure check process.

Solution

Sonic Air Systems teamed with Marshall Manufacturing to explore several methods to automate the manual blow-off process. Sonic chose the patented Rotary Air Knife System powered by a Sonic Centrifugal Blower that completely dries off moisture inside the regulator body and on other components as the parts pass along the narrow conveyor belt.

Result

Sonic's Rotary Air Knife System achieved Marshall Gas's quality objectives with increased production rates and significantly lower energy costs. The system is more efficient and effective by replacing the manual blow-off process. False rejects were all but eliminated.

KEY TAKEAWAYS

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