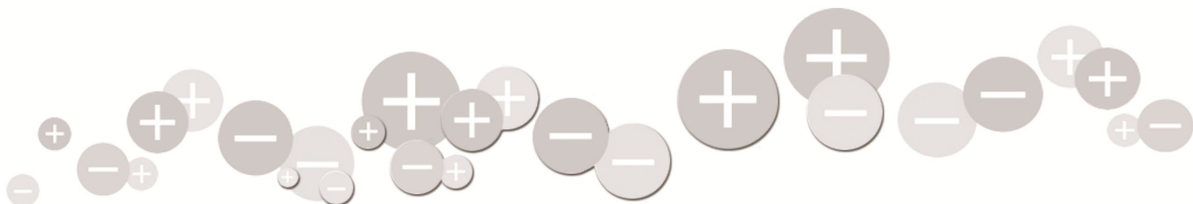
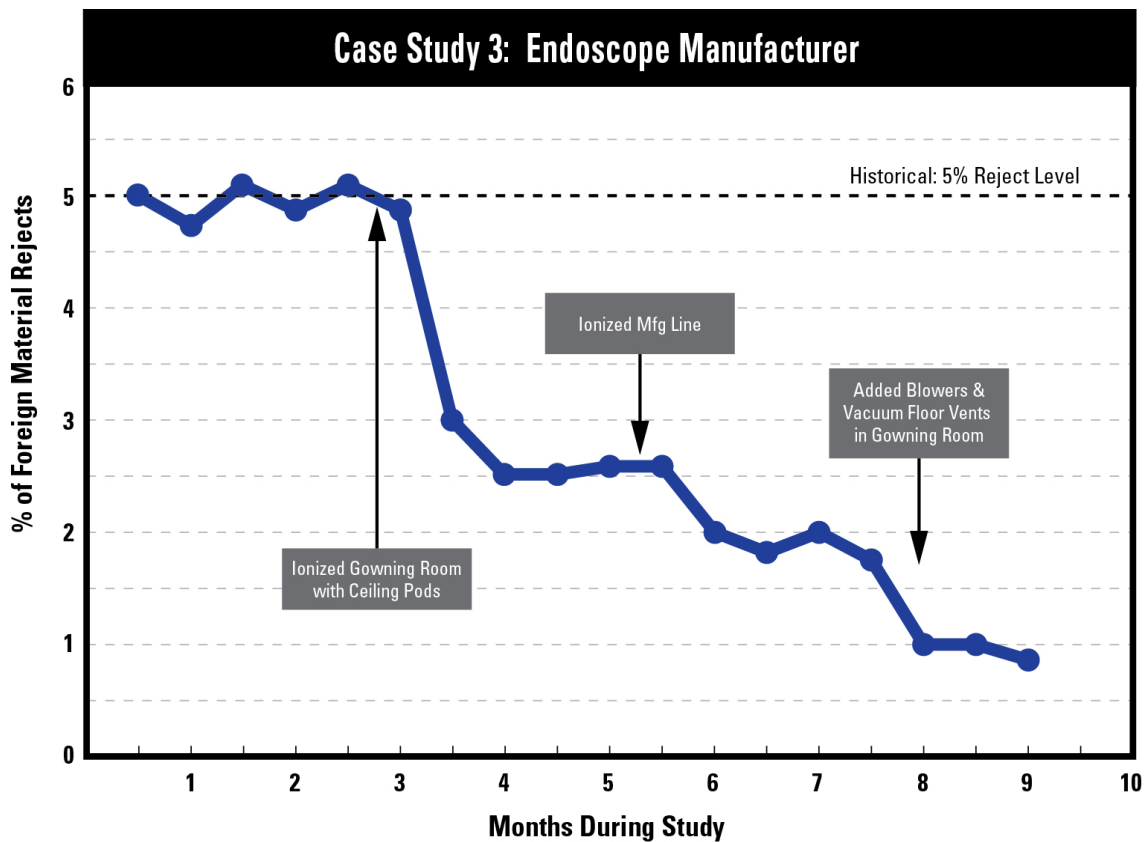


# Yield Improvement

## Endoscope Manufacturer

This is a 9-month case study for a major **endoscope assembly manufacturer**. Their foreign material rejects (particle contamination rejects) historically were around 5%. In the 3<sup>rd</sup> month of the study (see the graph below) Simco-Ion defined the ionization systems needed and installed a ceiling-based room ionization system in the gowning room. An immediate reduction in rejects was realized, as the reject rate fell from 5% to 2.5%. As much of their particle contamination at this facility was due to “people particles” (clothing fibers, skin, make up, hair, eyelashes, etc.) (*-this is not always the case in all facilities - it is important to determine the particle sources up front – and Simco-Ion can provide this service!*), gowning room ionization alone played a major role in keeping those particles from entering the manufacturing areas. Two months later, ionization was implemented on one of their more problematic production lines. Reject levels then fell below 2% at that time. Two months later, overhead blowers and vacuum floor vents below the blowers were added to the gowning room to remove the particles from the gowning room that were coming off of the personnel under the ionizing blowers. As a result, rejects fell to 1%.



It is interesting to note here that the ionization implemented in the gowning rooms at this facility (ceiling-based room system ionization, ionizing blowers above the entrances and exits, and the additional vacuum vents that personnel stood on below the blowers) accounted for almost 60% of the reject rate improvement. If the majority of particle contaminants are determined to be coming from personnel, gowning room ionization when done properly, can be a tremendous ROI in and of itself. Conversely, if the majority of particle contaminants are process related (cardboard, paper, epoxies, plastic slivers from products, etc.), ionizing the manufacturing areas are most critical to eliminate static attraction onto the products from those sources.

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