Case Study:
Resolving an E-book Quality Puzzle

Quality Issues Solved in 3 days
As it turned out, the E-book devices produced by three suppliers failed to meet Amazon's requirements. Since the company emphasizes on high quality, they conducted an investigation immediately but could not identify the cause of the quality failure. In response to this, they decided to seek help from an expert partner. The company turned to ITQM, a joint venture of Intertek and TQM Consultants Co. Limited, to identify and resolve the quality issue once and for all.

Intertek ITQM helps global, regional and local partners and customers improve production quality, productivity to better compete and succeed in the ever changing business environment. “

Based on the main issues raised by Amazon, they discussed and agreed on the scope of work – ITQM totally understood the needs of the company and provided a comprehensive improvement program plan immediately. In the course of the program, our consultants first carried out critical review of the major shortfalls of the factories against the buyer’s audit checklist requirements. They then exhaustively reviewed all production aspects from frontline staff, software of equipment, records of current production, O/R (outgoing products / raw materials) warehouse and shipments, to document samples, and nothing was left uncovered. From this thorough investigation, the consultants were able to identify the true cause of poor quality and recommend appropriate solutions.

For more information:
http://www.itqm.com.hk/
Next, they conducted station-by-station process audits against good manufacturing practice, ergonomics, safety, IE, Kaizen and LEAN concepts and recommended flow and method change to improve quality and productivity. By going through the issues identified in the checklist in detail, the consultants then established corrective actions.

The project was efficient, the issues were resolved within just three days. Ultimately, the factories became able to produce products conforming to Amazon’s requirements and passed its supplier audit in 15 areas. In addition, one of the factories attained 32% reduction on WIP rate and 23% reduction on rework rate. Its productivity became smooth sustainably. The resolution of the quality issues bought the client great relief.

For more information: http://www.itqm.com.hk/
Followup Project: Improving Casing Production Quality Yield

Satisfied with Intertek ITQM’s work, the client contacted Intertek ITQM again a few months later to provide quality improvement to a supplier of casings for the e-Book devices. The casings produced by the supplier had only a 60-70% yield of “acceptable” casings, meaning up to 40% of the products were defective and failing the standard. They set out to improve the yield to 85%.

Intertek ITQM discovered that the main problem was that a lot of flash were produced during the molding process. The manual de-flash rework process was seriously affecting the output and quality. At the time, there were over 30K WIP waiting for de-flash and the daily de-flash output was only 6-7 K while more than 10K was needed. Excessive manpower was involved, there were 12 de-flash lines with about 150 operators. During the course of improving the de-flash yield and output, two other unexpected incidents were found: the weld line at TUB corner and the connector thickness were out of specification. Intertek ITQM helped investigate and resolve the problems with short-term and mid-term strategies.

The short-term target was to improve the de-flash process in two ways: increasing the rework efficiency and develop simple tools/fixtures to increase the output and improve quality. Intertek ITQM examined each area in the de-flash process and refined each steps. For instance, (1) debris on work bench caused scratch to products; a work platform was introduced which could be cleaned easily after each work cycle, giving a clean surface for next work piece and reduced cosmetic rejects. (2) Grinding generates dust and dusty working environment is unhealthy to operators and caused cosmetic damage on product. Introduction of dust collector improved working environment for operators and reduces cosmetic damage on product. (3) A soft blade cutter bends easily and caused accidental scratch on product while a stiffer blade cutter improved cutting efficiency and lower the chance of accidental scratch on product. (4) Manual processes such as tub polishing, grinding and trimming of TPR (Thermal Plastic Rubber) in-gate by hand are inefficient and difficult to control. Power tools and fixtures were introduced to improve efficiency.
The mid-term target was to refine the molding operation in order to reduce flash. Intertek ITQM reviewed the molding parameters, material used, mold tooling structure/design and mold maintenance. The possible causes were indicated and examined one by one carefully. It was found that the fitting of moving slide (a) is critical and should be controlled within 0.025mm while the mold venting (b) should be controlled at about 0.05 mm.
In just one day, the root causes were pointed out and resolved effectively. In just one week, the daily de-flash output increased from 6K to 10K and the overall yield improved from 76% to 85%.

For further improvement, Intertek ITQM developed SPC control for critical molding characteristics (flash size, weld line, critical thickness) and designed full set of fixtures for use in the de-flash line in order to sustainably maintain the quality and productivity. They also evaluated different material and processing parameters to minimize flash and reviewed the full production line set up using LEAN concept to optimize efficiency. The final outcome was made sustainable with Intertek ITQM’s tailored maintenance services. With these successful cases, Intertek ITQM has become the company’s ultimate line of defense to implement immediate solutions to urgent quality challenges.

For more information: http://www.itqm.com.hk/

About Us

Intertek ITQM is a joint venture of Intertek and TQM Consultants Co. Limited. We have combined the professional expertise of Intertek and TQM, to provide a wide range of innovative and effective business improvement solutions to help global, regional and local partners and customers better compete and succeed in the ever changing business environment. We not only concentrate the improvement focus on Production, but also look into process productivity & efficiency improvement across various functions (involving management & planning) and along the entire supply chain. With our broad focus in improvements along all operations and emphasis on aligned efforts of their clients, we are able to bring enterprises concrete, measurable, dramatic (typically 30-50%) and sustainable improvements. We are practical, result-oriented, and focus on facilitation for implementation and achievements. We believe in win-win and one of our pricing strategies could be to share the cost savings and achievements with Clients. Besides Consultancy Services and Mindset Transformation, we also tailor-makes and formulates Comprehensive Technical Skills, Soft Skills and Team Synergy Workshops and Programs to facilitate the growth of the Human Resources, the mastery of various skills to enable effective delivery of services and the successful accomplishment and fulfillment of the corporate objectives.