



Manufacturer Achieving “Impossible” Improvements

case study



“If you look at the forty-percent improvement, we’ve saved \$1.1 million already. That is massive in our business! I’m not the skeptical guy today when it comes to statistically testing ideas, because it does work,” says Barry Shore, Polyester Operations Manager, Unifi, Inc.

Shore explains, “Unifi’s a synthetic yarn producer

of polyester and nylon yarns. If you look at the end uses, we touch all this in our texturing business today, from home furnishings to apparel, automotive. We make three million pounds a week. So, it is a 150 million pounds-a-year business for us in our texturing plant.”

Shore describes his improvement objective, “Yarn breaks are main contributors of our cost. We have over 14,000 positions that actually run in the facility and we have 29,000 breaks per week. We spend a little shy of \$3 million a year to repair the ends and put the ends back into production.”

As to the testing itself, Shore notes, “We brainstormed this whole project with executives, operators, managers, shift managers, QA technicians, R&D technicians, maintenance personnel. Now out of that, we came up with over 200 ideas to actually sit down and go through, to meet the practical, fast, and cost-free scenario. So out of that, we had twenty-five factors or ideas to test.” Shore goes on regarding the test results, “We had five things that showed improvement to breaks. We actually had four things that hurt.” Shore concludes, “We wanted a thirty percent reduction in breaks. We got a forty percent improvement!”

Jonathan Lipka, Unifi Process Engineer, described how Unifi used testing of many ideas to address an issue in the filament production operation. “So, what is the problem? A small filament. Yarn is composed of many smaller strands that are called filaments and we’re trying to get them all to be the same size. If the cross-sectional area is reduced then it becomes a defect. The key measure that we used for this was the percentage of packs replaced. Overall we had fifty-one ideas that resulted in twenty-three factors which fit the practical, fast, and cost-free criteria.”

“Prior to the testing, we had about an 8.46 average defect rate,” Lipka said.

“During the test, we had a 6.42 rate. And afterwards, we’re now at a 4.64. We wanted a thirty-percent reduction in pack fall out; we have achieved forty-five!”

“It is really satisfying to see companies set aggressive goals... and then blow them away,” said Art Hammer, Vice President of QualPro, the firm that helped Unifi use the MVT® testing process. “What a morale booster it is when you involve employees at all levels in achieving improvement that they thought was impossible.”