Design Manufacturing Transactions Service	
Latex/Plastics	Issue Re-blend of latex is created in small amounts each day. It is worked away in small amounts in selected products. The creation and work-away of re- blend are affected by both technical and management factors.

Breakthrough Strategy

- Measure The first step was to create a process map featuring key process input and output variables (KPIV's & KPOV's). A cause and effect matrix and a fishbone diagram were also created. Hypothesis testing focused on the #4 Blowdown Tank.
- Analyze The FMEA was conducted on the process. A total of five Gage R&R tests were conducted. For each, samples of three base latexes were prepared.
- Improve A single DOE (three factor, full factorial, single replicate) was conducted. It was designed around the initial findings that Blowdown Tank #4 caused less dilution. Since this tank had been installed two years later than the others, consensus was the mechanical condition of the steam inlet nozzles was better. Source reduction is one key. The other key is dilution prevention.
- Control Purging water flow into filter end bearing seals reduced dilution flow by 1,000 pounds per day. Installation of better rinse hose nozzles continued in several areas. Changes to batch recipes were also made.
- **Results** Recipe changes affecting selected latexes, along with recommended changes to operational/maintenance which affect production processes, were made. Technologies to remove water from diluted material are being evaluated for risk.
- Savings \$48,000 in recovered raw materials, along with \$46,000 in cost reduction.