

Defining operational excellence

"Safety is our middle name," says MSA director of operational excellence, Jerry Todd, which is why MSA Africa has spent the past 20 months reviewing key operational processes and implementing new programmes that not only improve safety but create a platform for excellence across the board. During its 95-year history, the company has become the world's leading manufacturer of sophisticated safety products. "My initial focus was team building," he says, a vital part of change management that ensures employee buy-in in new systems. "Our second focus was safety. We have reasonably mature safety programmes in North America, and created a 'safety network' designed



Jerry Todd

Jerry Todd has spent 15 years setting up continuous improvement programmes for 10 North American plants, including moving factories from one part of the country to another, joined MSA Africa in January 2008.

to bring everyone in to the initiative. By doing this, we were able to implement a programme that enables us to track reportable and lost-time incidents. So far, we have had an excellent lost-time record and our incident rate has continued to improve." Systematically working through key business areas, Todd and his team then focused on cost.

"A major part of that was to get the cost system in line with MSA globally, and we are now aligned with the international standard." To streamline manufacturing processes, MSA worldwide adopted a process called demand flow technology, or DFT. "It was founded by the John Costanza Institute of Technology (JCIT), and is a derivative of the well-known Toyota production system," Todd says. "It is focused on moving material faster and providing a greater delivery of a variety of products, while improving overall business performance. We've worked through about 85% of the programme elements, and it's proved to be 90% effective to date." What Todd is most excited about, however, is the company's employee goal-sharing programme. "This involves all our factory and warehouse staff, and has five key metrics with percentages attached to each. These include productivity, quality, safety, attendance and the 5S component, which stands for sort, set, shine, standardise and sustain." The 5S component is about the daily housekeeping functions that heavily enhance safety.

Todd adds that the staff's overall response to the goal-sharing programme has been excellent. "Employees can see how their particular areas affect the

company, and they receive a quarterly bonus based on achievements." When a plan like this comes together, it's visible: production in the factory has increased, with the linearity average in 2008 at 78% growing to 91% this year. The true success of DFT can be seen in the statistics Todd has collated: "Quality has improved by 44.1% during the year to date as indicated by the reduction in non-conformance reports (NCR)," he says. "The vital area of safety has experienced a ten-fold improvement, as measured by an external auditor against an objective safety barometer, and we are extremely pleased with this result." Todd also says that productivity (linearity) has increased 20.4% since the introduction of goal sharing and the 5S score has increased 32.8% since the inception of the programme. "Records show that attendance has improved only marginally, at 2.6%, but we are seeking other programmes and enhancements to increase our performance in this area further." Todd's theme for 2008 was 'Back to Basics', and the final part of the multidisciplinary operation was skills upgrading. "We implemented a programme to cross-train factory and warehouse workers to ensure the multiskilling of our operators. Not only does this benefit the company, it brings personal and professional advancement for each member."

Employees are trained to attain three levels of grading:

- trainee
- competent, meaning adept and able to perform more functions
- master of a particular job, meaning that they are able to train others. **35**