



CLIENT: Major Pipe Manufacturer | LOCATION: NSW, Australia

#### THE CHALLENGE:

The client was Australia's largest manufacturer of Oil and Gas pipe.

Market pressures and delivery timeframes for some specific customers meant that increased throughput without additional production shifts was required.

#### THE SOLUTION:

To understand the process and its performance, 12 months of production data was analysed, with initial analysis showing that there was a significant bottleneck in the production line.

More detailed analysis using the Six Sigma DMAIC toolset, in particular, Failure Modes and Effects Analysis (FMEA) and statistical analysis of cycle-by-cycle production data showed that there were a number of factors that were contributing to the area being the bottleneck:

1. Component reliability in the production equipment
2. Errors in the equipment control systems that meant that product was processed multiple times
3. Product specification inconsistencies that forced processing of product through the bottleneck that did not require processing.

#### THE RESULT:

- An increase of between 15% and 30% throughput was achieved, dependent on product mix
- Identification of plant bottleneck areas and their effect on overall performance
- Effective maintenance of equipment in the bottleneck area, as the critical components had been identified
- Appropriate plant throughput measures and targets developed and implemented.