Inside AE

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Anderson Engineering has, historically, received work from four key industries: dairy, chemical, food and pharmaceutical. It is interesting to note that over the past few years the business received from the food and pharmaceutical industries has increased, relative to the other two, playing a more significant role in our production. We have also adapted our abilities accordingly, specifically to meet their requirements and are pleased that the quality of the work we produce is recognized as being sufficient to meet the high quality and technological standards.

For example, in 2010 we completed and bedded down two important projects for Aspen in East London. These projects were significant for Anderson Engineering in that they occupied a large percentage of our production facilities for most of that year. The projects were completed successfully and have resulted in our increased understanding of how to meet the needs of important clients, like Aspen. In this instance, our ability to expand our expertise in the new field of pharmaceutical documentation was tested and we were able to deliver full pharmaceutical compliant documentation to meet these requirements.

In our quest to become world class, we have embarked on two key initiatives; we have successfully invested in plasma welding technology which has increased our efficiencies and production capacity in the welding of tanks and vessels and have developed/customised a project management system. There are two important aspects that we'd like to highlight; each project starts with an in-depth meeting of all stakeholders in the project and then there is a visual display of the actual performance versus the deadlines set for each key stage of the process. Everyone is therefore able to check on the progress of a project and is empowered to enquire about any missed deadline! The system is proving to be a useful tool in maintaining awareness for deadlines and prompting problem solving discussions. The system is definitely a move in the right direction!

Our company was again recently audited for B-BBEE. The audit result was a > 55 and < 65% score which equates to our being a level 5 contributor with a B-BBEE procurement recognition level of 100%. Please remember that the certificate is displayed on our website for ease of reference. We have also submitted our first Employment Equity plan and now have an Employment Equity committee in place.

As always we appreciate your comments and look forward to working with you in the future.

Hans Coertse
Managing Member

Our New Project Management System

Due to the specialised nature of most of our projects, we have recognized "on time" delivery as one of our major challenges. A key outcome from the business strategic session undertaken in 2010 was the recognition that we had to further improve the overall management of the numerous projects that we undertake for clients. The 'milestone plan' was the result and includes a number of elements:

- we manage projects according to agreed milestones
- detailed planning meetings are initiated with all internal stakeholders as soon as the go ahead for projects are confirmed
- we have introduced a comprehensive project evaluation procedure

The end result is that we have increased our capacity to pinpoint progress on a project. Clients are already experiencing the benefits of these amendments to our approach as we are able to now identify any problems in a project or process sooner and can then take the corrective action required.

Large screen TVs have been installed in the drawing office and factory. These detail the progress made on projects and highlight where any job is lagging relative to the agreed timeline.

Our Recent Projects

Aspen (East London)

Two projects were recently undertaken by Anderson Engineering for Aspen, East London.

Details of the Projects

Project 1: The low bio burden project consolidated the semisolid ointments and creams equipment into a new facility. The fully automated contramix vessels with raising/lowering capabilities were designed with functionality which includes full vacuum, overpressure with contra rotating stirrers and emulsifiers for which all internal components had to be mirror polished. (A first for us!)

The associated equipment with this plant included a premix wax melting vessel with additional mobile vessels, storage tanks and a comprehensive automatic Cleaning In Place (CIP) system.

This was a very technical project where installation and commissioning deadlines were tight.

Project 2: The process is totally batch orientated with five main

Manufacturing

3000 ℓ Hot water tank with vacuum pump

1250 ℓ Contramix vessel raise/lower being tested

750 ℓ Portable storage vessel - finishing touches

700 ℓ Wax melter grid

Emulsifier - premix tank

750 ℓ Contramix ingredient inlet funnel

750 ℓ Portable storage vessels completed

Wax melters / portable storage / contramix - testing motors / clamp rings

Complete

Pressure testing dimple jacket of contramix vessel

1250 ℓ Raise/lower contramix vessel

750 ℓ Portable storage vessel with product

750 ℓ Portable storage vessel in wash bay

750 ℓ Contramix vessel anchor stirrer

1000 ℓ Wax melter

Contramix vessel scraper blades

750 ℓ Raise/lower contramix vessel

manufacturing vessels utilising a combination of pressure, vacuum and mixing capabilities. This is a flame proof installation as the manufacturing process includes the processing of alcohol. There is a comprehensive automatic CIP system.

Overall

The electric and control philosophy required the extensive use of Programmable Logic Controller (PLC). The projects were subject to full pharmaceutical documentation requirements and had to undergo 100% scrutiny and audit for all the materials of construction, calibration and test certificates. As these were turnkey projects, the building infrastructure was in place but all rigging, installation of plant, pipework and electrical installation was undertaken by Anderson on extremely tight deadlines.

"We brainstorm excellent, practical solutions and enjoy open communications. Anderson delivers what we require. It was a requirement that you supply the correct documentation, and we were impressed by your willingness and the resources that you put in place,"

- Mike Reed, Aspen (East London).

Manufacturing

3000 ℓ Manufacturing vessel on cradle ready for transport

1500 ℓ Manufacturing vessel cleaned and completed

500 ℓ Cold water tank cleaned and complete

CIP system pipework - factory set up

Complete

1500 ℓ Portable storage vessels completed, ready for factory acceptance test

1500 ℓ and 500 ℓ Portable storage vessels ready for factory acceptance test

100 ℓ Mobile premix tanks ready for factory acceptance test

Tanks loaded on truck ready for transport

Anderson Provides Shelters for Children

Early in March 2010, Anderson Engineering identified the need for waiting shelters for school children at two schools in close proximity to our premises. In working with the schools, the waiting shelters were designed primarily to provide protection from the elements as many of the school children commute and have to wait for public transport. However, the location of the shelters allows them to be used for other purposes, eg: a seating area during meals or breaks.

By September the concrete slabs were laid and the structures were being progressed in the workshop. The manufacturing process took a little longer than we hoped as we juggled deliveries of client projects with our desire to assist the local community.

The structures are now installed at the Forest Hill and Woodlands Primary Schools respectively. Each structure provides shelter for up to 150 children. The principals of both schools expressed their gratitude to the team at Anderson and in return Hans Coertse, our Managing Member reiterated how good it felt to be in a position to assist the local community.

Hans Coertse (Managing Member of Anderson Engineering), Mr Basil Manual (Principal), Mr Jasson (former Vice Principal now Principal of Woodlands Primary) of Forest Hill Primary School) and Trevor Govender (Anderson Engineering)

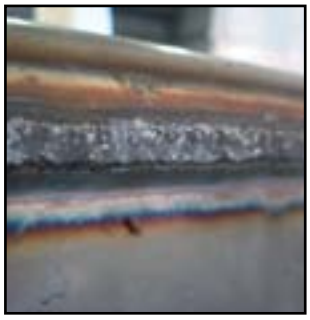
Hans Coertse (Managing Member of Anderson Engineering), Mr Oaks (Deputy Principal) and Mr Jasson (Principal) of Woodlands Primary

Improved Welding Facilities!

Historically, for butt welding of sheets, Anderson has made use of double tungsten inert gas (TIG) welding which requires two skilled artisans to work simultaneously to achieve one weld. This process allows us to achieve a one pass weld on material up to a thickness of 4 mm. These welds are achieved while the job is in a vertical plane. For any material thicker than this, several passes with back grinding, are required. This process is still used for the smaller welds and for once-off applications.

However, most of the sheet butt welds and circular strake welds are now done on the new plasma welding machine as it can achieve a one pass weld on material up to 8 mm thick. The machine requires two semiskilled operators. The machine has a 3 metre seam welding bench upon which sheets of material are welded together in a horizontal plane. The column and boom have been designed to allow the welding head to rotate and weld on the seam bench as well as on the rotating table. Cylindrical vessel shell strakes with diameters of up to 4 metres can be joined together. This machine can weld up to 3 metre lengths at a speed of 3 minutes 20 seconds per metre. The PLC control system uses camera technology allowing the operator to see the weld pool and make fine control adjustments to ensure consistent, quality welds.

Our new plasma welding machine



A TIG weld

A plasma weld

Staff News

Apprenticeships

We have registered two of our employees on the ATRAMI apprenticeship programme. They are Brenton Elliot who has been working as an operator boiler maker and Malcolm van der Merwe who started as a welder operator and who has been trained to weld in-house. Based on time, they will be able to go for an assessment at the SUGAR ASSOCIATION training centre to become a boiler maker and qualified welder in the Metal Industry.

Brenton Elliot

Malcolm van der Merwe

New Appointments

Front row from left to right: Herman Abrahams, Jerome Marais, Jasmine Swart, Robyn Van Rooyen, Bongani Mtolo
Back row from left to right: Kirsten Sharpley, Tyson Freddy, Warren Horsley, Dwyne Van Kratenburg, Russel Greeff, Roderick Blake and Nirvaan Singh.

Gerard Van Rooyen

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