

Name of Project / Product: Klipspruit Mining Venture

Location: Ogies, Mpumalanga

Project Team: *Developer / Owner* BHP Billiton

Engineer / Architect Goba

Specifier Becsa

Project Manager Marten Spencer (Tass Engineering)

Main Contractor Radon Projects

Hot Dip Galvanizer Armco

Fabricator Tass Engineering

Tonnes of Steel: 700

Project Inception Date: April 2009

Project Value: R25million



Introduction

From small beginnings in 1968, Tass Engineering has grown to become one of South Africa's leading Structural Engineering companies.

From their reef headquarters in Spartan, their operations cover the entire country, including the neighbouring states of Namibia, Botswana, Zimbabwe, Mozambique and extended to exporting structural steel to the rest of Africa.

Tass Engineering has considerable experience in private sector construction work and number among their clients leading architects, engineers, quantity surveyors, developers and construction companies.

For the communication network of Telkom and Eskom they have specialised in the construction and the erection of self supporting structural steel towers from 15 to 80 metres high throughout the Republic, including a rural telecommunications network in Swaziland and two complete satellite antennas for Telkom SA.

Tass Engineering undertakes steelwork to clients requirements and specifications. Whether it be factories, bridges, stadiums, warehouses, towers, satellite antennas, shops, or shopping centres of any size, if its made of steel then they make it. Quality is the first priority and stringent quality control is practised from manufacture through to erection and completion.

Their Quality Management and Quality Assurance Systems are based on SABS ISO 9002.

With the workshop area of over 4000m² serviced by six overhead cranes, Tass Engineering is capable of handling up to 350 tons per month. In order for Tass Engineering to support this magnitude of steel they have a fleet of trucks, trailers and two 25 ton mobile cranes to ensure speedy erection.

Recent achievements include: The new Metro Concourse for Park Station and the lower main roof structure at the International Departures Terminal Johannesburg International Airport. Bruma Autopark. Atruim roofs at Gateway 2, Michelangelo Hotel and Sandton Square; steel balustrading to the Johannesburg Athletic Stadium; various Microwave towers; various shopping centre complexes.

For Radon Projects, the company is building a full workshop, tyre repair, fitment and wash bay for the large dump trucks at diversified miner BHP Billiton's Klipspruit coal mine in Ogies. The project, valued at about R25-million, started at the beginning of April and is scheduled for completion by April 2009. The structural steel required for the project is 700 t.

Motivation

Obviously the costs involved in sending these large earth moving equipment to a fitment centre or workshop is enormous, so therefore it is beneficial to have such a facility on site?

Innovation and the Promotion of Benefits

As can be seen by the attached photos this is a enormous building. Due to the corrosive properties of the soil at the mine, it was decided to use Hot Dipped Galvanized structure.

With a galvanized coating, the product is of a neutral colour and therefore it fits in wherever it is positioned and has a very good aesthetic finish.

Improved Technology

There is a very strong teamwork must exist between Tass Engineering and BHP Billiton' purely due to the amount of work which they have done for the mine. Tass Engineering has also done a lot of work for Radon Projects.

The project in it's self assists in a tremendous saving both in downtime costs of the machines and transport to other facilities.

Promote Professionalism

Now that the huge project has been tackled, there. must be a large amount of people from various professions that will see the fantastic advantages of galvanizing over painting.

The long-term quality of this project will promote long-term partnerships and will be a very good article for promotional purposes and even a very interesting case study.

Obviously, as mentioned above, there was and still is teamwork needed to complete such an enormous project successfully.

Provide Service

By having used a reputable Galvanizer such as Armco, the customer is assured of a high quality product and the sound back up, combined with the HDGASA if the need should arise. This will ensure customer satisfaction and service.

As Tass Engineering has been involved in Galvanized projects for many years, it was not necessary to do any training with them.

All parties concerned will benefit from such a project as it is a fine quality, long-lasting and a quality product.

Celebration of Superiority

Standing out all over the country must make this a very visible and high profile project. As it will look good for many years to come, it will attract attention for the same period.

Dissemination of Knowledge

As our customer is well informed about galvanizing, it was not necessary to inform them of any of the pro's or con's of our product.

The end user has now a greater knowledge of galvanizing and the advantages there of.

The customer is always training and improving his employees knowledge, so any involvement in such a project must have a positive effect on them.

Market Growth

As this project stands out in the area and ran without any problems, it can only be a good advertisement for the promotion of Hot Dip Galvanizing and obviously for Armco as well.

As this project is a success there will more than likely be more requests for galvanizing of similar projects in the future.

Being a country wide group the reputation of galvanizing has also be stretched country wide.

Sustainable Resources

As already mentioned this building is in a very harsh corrosive environment, so therefore a galvanized product which is maintenance-free is the way to go.

Hot dip galvanizing is one of the best corrosive coatings available so here the customer gets the best of both worlds.

Exceptional Merit

One of the things that makes this project so special is the fact that it is an enormous structure and the logistic saving for the mine.

Conclusion:

I believe that purely for the enormous amount of steel and that it is a first in the country makes it a winner.

