

New cold milling machine gives Baseline Civils a competitive advantage



We are surrounded by new technology that seems to overwhelm us daily. New cellphones, new computing, new almost everything. And if you don't keep up, you will in time become a technological dinosaur.

The same can be said of the challenging field of road construction and rehabilitation. Challenging because it is highly popular amongst those construction companies who specialise in road construction and rehabilitation and even more so because profit margins are tight and margins for error are non-existent.

So, when a civil construction company that has a very strong bias towards building and rehabilitating roads tells you that it has equipped itself with so much new technology to give it an edge over any competition, you'd do well to sit up and pay attention.

Soon after civil engineer Johan van Deventer set up Baseline Civil Contractors in Cape Town in 1991 the company moved to its present head office in the suburb of Blackheath. In the new company's early years, it provided mainly infrastructural services but has since grown to specialise in road construction and rehabilitation.

"We try to concentrate our efforts in the Western Cape due to logistics and control, but we have worked further afield in both the Northern and Eastern Cape," says Marc Beer, Baseline Civil Contractors' Plant Director. "As we speak, there is a fair amount of new work coming out in both the public and private sector and we feel we've

geared up in terms of advanced new equipment to meet these challenges and above all provide our clients with a better product than our competitors."

According to Marc, the biggest component of their yellow machine fleet is manufactured by Bomag, which is sold, distributed and serviced by Bell Equipment. While the company has many Bomag Rollers, it's the more sophisticated equipment that sets the company apart and gives it a technological edge.

"With much of the new work in both road construction and rehabilitation on offer, tender specifications demand that certain specialised equipment be used to ultimately create a better and longer-lasting road surface," Marc adds.

"We also stay up-to-date with the latest developments in tooling as we recently did when we upgraded the drum on a Bomag MPH125 Recycler, where the tool holding system was improved, making the cutting tools last longer and this has the effect of making the machine more productive."

Early on in 2018 Baseline Civil Contractors decided to equip itself with still newer technology machines. They settled on a Bomag BM1000/35 Cold Milling machine with a cutting depth of 330mm and a milling width of 1 000mm. A milling machine removes the existing material when an existing tarred road is rehabilitated and the desired depth can be set, depending on how many of the base courses need to be removed.



Bell Sales Representative, Fiona Johnson, with Marc Beer, Baseline Civil Contractors' Plant Director.

“The first road we used this machine on was near Stellenbosch and we were happy that, despite milling down to 300mm to remove both the top wearing and the base courses, the Bomag BM1000/35 Cold Milling machine’s power is such that it worked in relatively low power settings,” Marc says.

In the same order to Bell Equipment as the Cold Milling machine, Baseline included a Bomag BF800 Paver with a production capacity of 800 tonnes of material per hour, spread over an extended screed width of 5 000mm.

A third machine was added, this time a Bomag BW161 ADO50 Tangential Vibratory Roller, which Bomag describes as ‘another way to compact’. Marc explains that with this tandem smooth roller, the front drum with its vibratory action provides the initial correct compaction, which is then further enhanced by the rear drum, which has a kneading action to give much finer compaction to the required tolerances.

“We believe that current trends in the South African market show a leaning towards road rehabilitation rather than new road construction for the most part and we believe the new technology that we’re embracing and committing to in terms of our Bomag equipment purchases, will give us a definite competitive edge,” he explains.

Baseline Civil Contractors believes in buying equipment with standard warranties only. According to Marc, the company is happy to entrust all servicing under warranty to Bell Equipment. The company insists that all machine operators complete daily checklists and, as a rule, our workshop and qualified technicians keep a keen eye open that this is done. Service scheduling is based on that which is recommended by the original equipment manufacturer (OEM), but Baseline has designed its own service sheet with additional needs that they have identified in the workplace.

Factors that are kept in mind are the local working and environmental conditions and fuel quality that need to be adapted to the high-tiered engines of European origin. As an example, the maintenance teams change fuel and outer-air filters at 250 hours whereas the OEM recommendation is 500 hours.

On the Bomag Rollers, there is a specific way to bleed hydraulic systems after the replacement of oil and this is noted on the Baseline service sheet to avoid potential problems. This, the company believes are the small things that auger well for sustained uptime and machine longevity.

“Our relationship with our supplier, Bell Equipment, is important to us,” Marc says. “This starts with the Sales

Representative, Fiona Johnson, and Product Support Representative, Ian Marais, who are both knowledgeable about these specialised products and extends to Bell Equipment’s Technical Trainer, Edwin Zeeman who spent time with us on the new equipment.”

“We appreciate that Bell Equipment invites us to demonstration days where we get exposed to new technology and ideas. Working further afield means that we can rely on Bell Equipment’s wide footprint for technical back-up and this gives us confidence in tendering on work in other parts of the country.”

Bell Equipment’s Product Marketing Manager: Bomag and Regional Sales Manager for the Cape, Johan Hanekom, says: “It is great to hear that Baseline Civils is reaping good results with their Bomag machines, particularly the BM1000/35, which is the first of its kind in the country. We will be keeping a close eye on this unit as we believe that the Bomag Cold Milling machines can bring real benefits to the Southern African market by delivering in the key areas of durability, efficiency, performance and productivity as well as operator comfort and ease of maintenance.”

Quick facts:

- Across the range Bomag cold milling machines are the most powerful machines in their class, enabling torque to be transferred efficiently to the milling drum through

variable milling and travel speeds. An advantage of the Bomag range is that they average working depths of 330mm in one cut.

- The range has a compact design which, together with their manoeuvrability, makes them an ideal choice for the removal of road and floor pavements under confined conditions and equally capable on arterial roads.

- The planers are equipped with a long, powerful conveyor belt that is height adjustable and can be pivoted left and right by 45 degrees to provide high flexibility in combination with the truck. The conveyor belt is hydraulically folding for easy transportation while inner and outer conveyor belts can be quickly disassembled to make maintenance easier.

- Bomag has ensured their planers are up to the arduous task of churning up asphalt by incorporating robustness into the design with features such as external cooling and filtration of the gear oil. Similarly utilising high quality materials maximises the life of the machines and the components.

- Extended crawler tracks improve traction and stability in combination with low wear. Bomag cold planers also have a market leading transport speed of 7,5km/h to reduce unproductive time.

