

**PRESS RELEASE:**

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***'Solid' safety: Vital Engineering's solid forged handrails and stair tread nosing – safety assured for the local and pan-African mining sector***

Mining is a primary creator of wealth and employment, and, as such, places demands on the people and equipment employed in this all-important sector. To keep mines operating efficiently, quick, safe access to areas such as minerals processing plants is essential.

Founded in 1939, Vital Engineering has built up an enviable reputation for supplying top-quality serrated gratings, handrail systems, stair treads and expanded metal products to the mining industry. These are available in mild steel, stainless steel, aluminium and fibreglass; as well as in galvanised mild steel – a popular choice because of its resilient and hardy finish.

A major advantage of Vital's walkway systems is the greatly improved levels of safety they offer to workers who use them daily. Today's mine safety legislation imposes severe penalties for failure to adhere to proper safety measures. Vital's ISO 9001-certified products are manufactured from the best quality steels and conform to the highest safety standards.

"Vital products which are widely-used and very popular in the mining industry are our solid-forged handrails and our non-slip stair tread nosing, which are the preferred choice in numerous mines and plants," explains Glen Pringle, Technical Director of Vital Engineering.

During the process of solid forging, a piece of steel or other malleable metal is shaped under extreme heat with specialised tools designed for the task. Vital Engineering started using this process to make handrail stanchions in 1942.

"The major advantage of solid-forged products is that they do not corrode internally," Pringle points out.

With their corrosion resistance and robust longevity, solid-forged handrails have gained wide acceptance in the mining sector since first entering the market in 1940's. "On some long-established mines, one will even see Vital Engineering's solid-forged stanchions which are as many as 30 or 40 years old," he adds.

Furthermore, for ease-of-installation, solid-forged handrails require less welding to seal the meeting points of the stanchion ball to hand- or knee-rails. They therefore also prove extremely cost-effective from this perspective.

The popularity of these stanchions has seen them being used not only in South Africa, but also in mines throughout the rest of Africa.

Another potential 'high risk' area on mines is on stairways. Miners' boots are often caked with mud and - over time - the passage of many boots will inadvertently 'polish' stair tread nosing, giving this a dangerously slippery surface with potentially lethal results.

To assist in combating this challenge, Vital Engineering supplies a number of different types of nosing for various conditions within the mining sector. "For example, our bullet nosing has a very hardy, resilient surface which is self-cleaning - even in the toughest conditions," he explains.

This type of stair nosing is designed for extremely harsh conditions while retaining its non-slip surface.

Mines are constantly searching for ways in which to reduce costs. Vital offers stair tread nosing made in a variety of materials, each one suited to a particular type of operation and lifespan requirements. As a material of manufacture, fibreglass-finish stair tread nosing has become very popular on mines because of its light-weight, fire-retardant properties and excellent corrosion resistance.

Corrosion resistance is a particularly important feature, as many minerals processing plants use chemicals, which aggressively attack any steel component. In this type of environment, fibreglass handrail, stair treads and even walkways offer a maintenance-free and cost-effective alternative.

"Vital's non-slip stair tread nosing has become a widely-specified mining industry requirement for a variety of reasons, the principal one being safety. A good example here are our recently relaunched stair treads with yellow nosing in a gritted, non-slip fibreglass finish. This is finding extensive acceptance in many mining operations, both locally and in the rest of Africa, as it offers a good degree of visibility in low light conditions," Pringle advises.

When it comes to non-slip stair tread nosing, these can be used on both stairs and steel stair treads in mining and non-mining applications.

"In stairways used in applications outside the mining industry, the fibreglass unit can be cast into the concrete edge," he continues.

In addition, where stair treads manufactured from steel or other materials need their nosing replaced, this can be easily done using countersunk screws and saddle clamps with the bullet top range.

In another development that improves installation efficiency, Vital has a dedicated area at its Johannesburg facility where walkways and large grating floors can be pre-assembled and checked for accuracy before the products are shipped to the customer.

“This system of trial layouts ensures that all on-site installations proceed as quickly and as faultlessly as possible,” Pringle continues.

With several decades of experience in supplying products to the local, pan-African and international mining industry, Vital Engineering has supplied products to gold mines in Burkino Faso, Ghana, Guinea, Namibia and Tanzania; as well as copper and cobalt mines in the DRC, Zambia, Namibia and Uganda; nickel mines in Madagascar and Tanzania, and coal mines in Mozambique. “We also have supplied uranium mines in Namibia and Malawi, as well as a diamond mine in Sierra Leone, among others,” he says.

With strong growth prospects and investment opportunities in Africa, Vital Engineering has positioned itself to meet demand with both a wide and varied stockholding and reliable service delivery.

“Along with the most competitive life cycle costs and low maintenance requirements, safety on mines remains a ‘Vital’ consideration when specifying walkway systems – particularly for those working metres off the ground,” Pringle points out.

“At Vital Engineering, our abiding concern has always been for the safety and efficiency of our customers.

Our solid-forged handrails and non-slip stair tread nosing product offerings are a practical and innovative contribution to the safety and well-being of the local and pan-African mining sector,” Pringle concludes.

***Ends***

***(962 words)***

#### **Note to Editors**

Since 1939, Angus McLeod and Vital Engineering have established a reputation for quality and service in the manufacture of all types of gratings, stair treads, pressed floors and safety handrails. Its brand names of Vitagrid® and Maclock® have become synonymous with versatility, quality and service.

The Group offers a wealth of product expertise and has been involved in the supply to power plants, petrochemical plants, materials handling projects, mining, process plants, food, beverage

as well as most facets of the civil and structural engineering industries, both domestically and internationally.

A variety of products and materials for numerous applications are readily available, when either costs or corrosion are factors. The range includes bitumen dipped, galvanised (610g/m<sup>2</sup>) and mild steel. Other grades of materials such as SS304, SS316, structural grade aluminium and 3CR12 can also be manufactured.

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