

Galvanizing the future: HDGASA says training pivotal to ensure project excellence and industry success

The Hot Dip Galvanizers Association Southern Africa (HDGASA) plays a pivotal, lynchpin role in liaising across the entire value chain as it seeks to develop the market for hot dip galvanizing as the preferred and cost-effective corrosion control technology. In line with this key objective, training and skills development for the sector are among the most crucial aspects of the Association's multi-focused strategy, according to Executive Director, Robin Clarke.

"We wear many hats: industry advocate, custodian and champion, interacting with many different role players throughout the steel and galvanizing value chains, and acting as a lynchpin, linking different role players. A large degree of our success in doing so can be attributed to training," Clarke states, looking back over a proud history which dates back to 1965, when the Association was founded to serve the needs of end-users, specifiers, architects, engineers, contractors, fabricators and hot dip galvanizers throughout Southern Africa.

Investment in training

Notwithstanding an excellent industry track record, the Association has faced substantial challenges in the past few years: for example, the struggles of the South African steel industry, coupled with the economic and industry-wide impacts of the global Covid-19 pandemic.

"We have seen tremendous contraction in the steel and steel-related industries during this time. Steel consumption has shrunk, which has impacted on hot dip galvanizing locally. Unfortunately, many marginal plants did not survive. However - now that the steel and galvanizing sectors have come through this period of contraction and consolidation - we are starting to see encouraging signs, including 'green shoots' of growth. One of the most important has been an increased demand for – and investment in - training," Clarke points out.

"This strong industry participation signals a strong level of optimism about the future. The galvanizing plants processing the majority of the tonnage in South Africa are engaged in ongoing internal, and external, customer-facing developmental training. Our hot dip galvanizing courses benefit all employees of companies that are committed to career development and transformation," he adds.

An industry voice through training

While certainly an industry advocate and champion, the HDGASA realised that training and education was at the heart of establishing industry credibility: of hot dip galvanizing and duplex systems as the most cost-effective, preferred corrosion control technology, and of the Association's members.

"We found that the most effective means of promoting the technology was educating end-users, architects, specifiers, designers and project managers on exactly how the zinc coating protects iron

and steel components against corrosion. Arising from this, various technical presentations were developed; and, as with all educational tools, these evolved. Over time, these were refined and ultimately transformed into the formal training courses which we now present,” he reveals.

The ‘listening lynchpin’

Importantly, ensuring that the information and skills shared in this training are of the required quality, level and relevance is achieved through effective listening:

“We listen carefully to the challenges, pain points and requirements of the steel and galvanizing value chain - including the Association’s members, industry partners and end-users.

To this point, we find that a many value chain participants, including engineers, architects, specifiers, fabricators and other professionals - still need to be educated about precisely how the technology works. This includes aspects such the development and application of the corrosion control coating, so that materials and processes can be correctly specified to achieve the best outcome. Once that outcome has been achieved, industry role players need to understand the standard against which the outcome is judged,” he explains.

By the late 1990s, elementary training courses had become the Level 1 and Level 2 training courses which today form the foundation of the HSGASA’s training offering. In addition, the HDGASA also offers bespoke training to meet the specific needs of members and other members of industry.

A custodian of skills and standards

Clarke explains that the HDGASA represents its members through participation in TC 107 – a technical committee which sets national standards through the South African Bureau of Standards (SABS).

“We are also positioned to provide training on this, because we are part of the team that writes the standards. This reflects an evolution of our partnership with the international galvanizing community, members of which have representation on the International Standards Organisation (ISO) board. They write standards for hot dip galvanizing internationally, and we then play a monitoring role in the local transfer and adaptation of these by representing our members at the SABS. This, in turn, gives us the credibility to deliver lectures on these standards – and to explain why they are written in the way that they are,” he continues.

The HDGASA also partners with the South African Institute of Mining and Metallurgy (SAIMM) which ensures that professionals attending these courses are awarded the relevant career development points (CDPs).

Closing the training circle and the skills gap

Clarke points out that, while customers or end-users need to understand the required specifications and standards, the galvanizers themselves also need to understand the same specifications and deliver projects to standard.

“For example, we have developed courses for supervisors and galvanizing employees to ensure that they are upskilled on a regular basis. The way to deliver successful galvanizing projects and build faith in the technology does not end with people knowing how to specify and measure outcomes correctly. The galvanizers themselves need to be well-positioned to deliver in accordance with quality and safety specifications and standards,” he says.

At the end of its Level 2 course – where the HDGASA concentrates very heavily on standards and how to measure compliance or non-compliance – there is a 3-part examination, including a dummy inspection. Those that pass earn a card from the HDGASA that permits them to inspect hot dip galvanizing against the SANS121:ISO1461 standard.

According to Clarke, although the HDGASA is not a regulatory body, it provides this recognition of skills as a means of maintaining the high standards which it helps to set.

“A large percentage of the steel and galvanizing value chain have attended our training courses and graduated over the years. Mindful of the skills gap in the engineering, construction and other sectors in this country, some of these courses are done by our members in order to qualify and develop their own people. Some even extend this to their customers. This enables their customers’ quality teams to formulate their own independent opinions as to whether they received galvanizing which was up to standard or not,” he explains.

Exporting local galvanizing training and skills

The HDGASA’s training material has been globally recognised by the International Zinc Association (IZA), which has partnered with the Association to utilise its material as the basis for similar training in South America and parts of Asia, including Japan.

The technical elements which account for two thirds of the course form the foundation thereof, with small adaptations to suit differing regional standards that are added at the end, Clarke explains.

The Association, which has a sub-Saharan African footprint, has seen hot dip galvanizing move successfully into Africa through the work of its members - and has also provided advisory services and support in Namibia, Sudan, Angola, Botswana and the Democratic Republic of Congo (DRC).

The best way to market hot dip galvanizing as a preferred corrosion control technology is to consistently deliver good projects, and these depend on the knowledge, confidence and skills of the key participants within the sector. As the HDGASA, we are proud to provide a diverse range of training,

resources and skills to ensure the delivery of galvanizing excellence, now and into the future,” Clarke concludes.