BIZCOMMUNITY

Future of sustainable warehouse operations lies in battery-powered technologies

By Chantell Malherbe

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As the global conversation steers towards the need to adapt to the changing business landscape, the pandemic has shed even greater light on the need for industries to be more operationally efficient and cognisant of their environmental footprints.

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Countless businesses are adapting their operations to reduce the impact on the environment and the material handling and warehousing sector is no different. It is in the midst of a tech-driven revolution to identify and adopt emerging technologies that minimise its carbon footprint, while optimising operations, decreasing costs and improving overall supply chain efficiency.

According to a recent *MDPI sustainable scheduling of material handling activities in labor-intensive warehouses: A decision and control model* report, as much as 10% of worldwide CO2 emissions originate from logistical supply chains.

Energy costs

The considerable amount of energy required for heating, cooling and lighting, as well as operating material handling equipment (MHE) in warehouses represents about 20% of companies' overall logistical costs. Around 11% of the total greenhouse gas (GHG) emissions generated by the logistics sector across the world are caused by warehousing activities. As such, a reduction of warehouses' energy consumption would lead to a significant benefit from an environmental viewpoint.

For the better part of the last two decades, battery-powered equipment has started to replace its more conventional internal combustion counterparts, with the advantages far outweighing the cost of investment.

Apart from being an environmentally-friendly alternative, changing legislation around food safety and safe working environments in South Africa and the rest of the world are pushing sectors that use material handling equipment to invest in battery-operated equipment to remain compliant.

Immense cost-saving

For the majority of applications, a battery-powered forklift can replace a diesel unit with no impact on the operation. The major benefit of this shift, over and above the elimination of emissions and persistent smog inhalation, is the immense cost-saving the customer can realise. While an internal combustion unit is cheaper upfront, the reduction in running costs and maintenance of battery-powered equipment will result in a significant cost-saving over the lifetime of the product. In addition, the resultant noise reduction properties of battery-powered equipment will result in a more productive work environment.

The market is accelerating at an unprecedented pace, with new technologies such as lithium-ion battery technology becoming commonplace in battery-powered equipment and translating into a drastic increase in optimising the efficiency of operations. This technology allows the machine to last longer in operation, and has the ability to handle heavier loads and applications.

Reaping rewards of going green

It is the duty of manufacturers and suppliers to develop and upskill employees on the technical aspects of battery-powered equipment and emphasise the advantages of using the equipment. This will enable employees to offer even greater service and insights to customers, allowing them to reap the rewards of going green.

The future of warehousing lies in the automation of the material handling equipment process and the advancement of battery technology. While the South African market may be lagging in the uptake of battery-powered equipment compared to the international market, as enterprises begin to realise the benefits of this technology, its adoption is expected to increase.

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