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PR2001 - For Immediate Release

News for the Aggregate, Ceramics, Chemical, Coal Processing, Food Processing, Glass, Metalworking, Minerals Processing, Packaging, Pharmaceutical, Plastics and Rubber and Recycling Industries

Contacts: Hannah Williams, Eriez Europe (UK)
hwilliams@eriez.com

John Blich, Eriez World Headquarters (USA)
jblich@eriez.com

Eriez takes 'charge' of its future with new capacitive charger

February 2020

Following years of continued growth, Eriez Magnetics Europe has invested in a second capacitive charger to keep up with increasing demand; a powerful system dubbed "the world's largest commercial magnetiser". This new capacitive charger will run alongside the existing charger to safeguard Eriez Europe's status as the industry leading magnetic separation manufacturer. The charger will be used to magnetise permanent ferrite and rare earth magnetic assemblies, such as Eriez' range of suspended permanent magnets, which are most commonly installed above process lines to remove ferrous contamination.



As pictured, this specialised charger works by passing a 300kj high intensity current from the capacitor bank through an unmagnetised block of Strontium ferrite or Neodymium iron boron. This ensures that all blocks are consistently

magnetised across the full width and depth for a superior magnetic field and guaranteed performance strength. Annually, Eriez Europe manufactures in excess of 2,000 overband magnets and the new charger will future proof this ever expanding core product line. Alongside this, Eriez' reputation for supplying powerful magnets with large field projection, that don't compromise on flux density, has enabled sales to continue climbing. Eriez is able to efficiently deliver a high-calibre product whilst keeping costs to a minimum and further reducing its carbon footprint with this more prudent method of charging. Being one of the only European magnetic separation enterprises with multiple capacitive chargers also lends Eriez Europe the fortunate position of having a large stock of equipment for immediate sale, suspended magnets in particular, which is vital in such a fast paced industry where downtime has significant financial impact for both manufacturer and customer.

Alternative charging methods can create an inferior quality of magnetisation due to the fact that the whole magnetic circuit cannot be charged at once, as opposed to Eriez Europe's single surge method that takes less than one second in a sole 20,000 amp pulse. It is impossible to effectively charge the individual blocks to full saturation as the repeated exposure to the currents within the charger actually begins to demagnetise the outer portions of the individual blocks, decreasing the overall magnetic field intensity by roughly 10-20%. When the whole circuit is saturated, this creates a stronger and deeper field, especially key for suspended magnets that require maximum strength for pick-up through a variety of burden depths. Eriez believes that investing in a premium charger is the first step to ensuring the performance quality of a magnet.

Weighing in at close to 14 tonnes, it is difficult to comprehend the power of this feat of engineering. Coupled with its strength, this new machine has an inbuilt flux meter providing quality assurance for every magnetic assembly. The capability to magnetise both Strontium ferrite and Neodymium iron boron, as well as sheer production capacity, gives Eriez Europe the edge it needs to be constantly evolving.

Eriez is recognized as world authority in separation technologies. The company's magnetic lift and separation, metal detection, fluid recycling, flotation, materials feeding, screening, conveying and controlling equipment have application in the process, metalworking, packaging, plastics, rubber, recycling, food, mining, aggregate and textile industries. Eriez manufactures and markets these products through 12 international subsidiaries located on six continents. Eriez World Headquarters is located at 2200 Asbury Road, Erie, PA 16506, U.S.A. Eriez Europe Ltd. has its head office in Caerphilly, South Wales, UK. For more information visit www.eriez.eu