

## EMPOWERING END USERS TO CHOOSE THE CORRECT SHAFT GROUNDING SYSTEM Application and Operating Environment Matter

### CASE STUDY

#### **The Problem:**

In 2019, DP&A Sales received a call from a large cement manufacturer requesting replacement parts for an SGS™ motor shaft grounding system that was installed by an OEM motor manufacturer. The OEM motor manufacturer did not account for the specific application and environmental conditions of how these motors would operate. A cement plant contains a very large degree of airborne particles that will cause wear issues for any non-sealed shaft grounding system whether the grounding system is carbon brush based or otherwise. The OEM motor manufacturer chose to sell their motors with a non-sealed drive end SGS™ shaft grounding system in order to fulfill the specification requirement of the cement plant to have SGS™ shaft grounding systems. The recommendation was made by the OEM motor manufacturer without consideration of operating and environmental factors and downstream costs the end user would incur.

#### **The Solution:**

DP&A Sales worked with the cement plant's engineer (the end user) to repair their existing SGS™ shaft grounding systems in order to get their operations up and running as soon as possible. Needed parts were identified and shipped within 24 hours of initial contact with the end user. Using an educational and consultative approach, DP&A Sales then provided to the end user information on alternative grounding methods that would assure the most cost effective long-term application performance. In this case, a sealed non-drive end motor shaft grounding system was recommended. This system will eliminate any excessive wear issues related to the plant's harsh environment. DP&A Sales' recommendation will result in very infrequent brush maintenance that can be completed while the motor is running. At 1800rpm, the expected brush change interval is 5 to 10 years which would dramatically reduce any maintenance costs related to shaft grounding. It is worth noting that had the end user consulted with DP&A Sales prior to commissioning their OEM motors with SGS™ shaft grounding systems, their long-term costs associated with shaft grounding would have been much less expensive. Given the operating circumstances, DP&A Sales' recommended grounding system is more cost effective, reliable and maintainable than the original grounding system installed by the OEM motor manufacture.

#### **In Conclusion:**

DP&A Sales understands that shaft grounding is more complex than a one solution fits all approach. Controlling for capacitive discharge in an HVAC situation using 20hp motors in a clean and dry environment is very different than a mining operation using large horsepower motors in a dirty environment. We believe that consulting with the end user is the best approach for ensuring an application is properly specified. In doing so, end users can be assured their shaft grounding specifications are the most cost effectiveness and will be a long-term solution. We highly encourage end users, those responsible for preventative maintenance and anyone else responsible for ensuring the highest level of performance contact us. We are here to help.

Tel: 1-541-997-4068 or email at [sales@dpa-sales.com](mailto:sales@dpa-sales.com).