Granutech - USA Shredding tires and cutting downtime



The client

When crushing metal, shredding tires and granulating wood is your business, reliable machinery and electrical durability is essential. If the shredding teeth jam when shredding through used-up tires, overheating will soon become a problem. This could lead to costly and potentially dangerous situations. Granutech Saturn Systems, Texas, USA is a well-known manufacturer of shredding, granulating and crushing machines. Over 100 employees scattered across the globe help customers with complete turnkey solutions ranging from the design of efficient size reduction equipment to implementation and servicing work. After switching to ABB's softstarter, Granutech estimates saving thousands of dollars per year in reduces service costs.

The challenge

Crushers, shredders and granulators are powerful machinery designed to reduce the size of wastage to simplify logistics. Large motors rotate shredding and cutting teeth that revert tire piles to rubber particles. High starting currents are reoccurring problems when handling this type of heavy machinery and has resulted in costly downtime for Granutech before. Overload currents due to jamming teeth are also problematic. And with the solutions Granutech used before, there was never a viable option for emergency starting once an accident happened. The bypass contactors specified were simply too small to handle a Direct-On Line (DOL) start of the motor. To ensure consistent performance of their crushers, shredders and granulators, Granutech turned to ABB.

The ABB solution

High starting currents, chattering bypass contactors and space were issues that Granutech needed to resolve. A switch to ABB's PSTB softstarter was recommended and the benefits were clear and immediate. The built-in bypass contactor, fully rated for emergency starts (DOL), solved both the space and backup issue. Jamming teeth are no longer as problematic thanks to built-in motor protections (EOL) and starting currents have been significantly reduced, relieving both motor and machinery of stresses that occur during start and stop. With no experienced failures in the field since the switch, Granutech says the reliability of ABB's softstarters has helped them convince clients choose their tire shredding systems. Furthermore, Granutech estimates saving thousands of dollars a year on service calls. Granutech took control of their heavy machinery and shredded downtime in the process.



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