



"In this column, various blasting related topics are featured and explained. The purpose is to share blasting knowledge with the readers."

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Maintaining Your Wheel Blast Machine (part 1 of 3)

The Manufacturing Industry of today is a world that wears many different masks. If you have ever stepped foot on the factory floor of a company that manufactures a tangible good, there is a good chance you have said to yourself, not in so many words, "I didn't realize how complicated it is to make something so simple". The fact of the matter is, the complex operations implemented by companies to manufacture a product, are not as complex as they would seem once you break it all down and realize you are basically looking at several individual pieces of equipment that are designed to perform a specific task: to turn raw material or parts into a finished good.

Focusing on the 100-foot view of a facility is a good thing in many ways, but it can also cause you to lose sight of the importance of controlling and maintaining every part on each machine. At the end of the day, the goal of any company is to make a profit, and it is almost always more expensive to fix a piece of broken equipment, that has stopped production, than it would be to replace a part that you know is about to break.

Each individual piece of equipment in a manufacturing facil-

ity, no matter how simple or complex, must have a set of processes to function. In order to understand how a piece of machinery works, it is important to understand each segment of the process it uses to function. Once you understand how and why these processes are used for the function of a piece of machinery, then you can start to understand the importance of controlling and maintaining the process to get the highest productivity and efficiency out of that piece of machinery.

Maintaining Your Wheel Blast Machine: Understanding the Process to Control the Outcome

The complexity of the abrasive blast process has been underestimated and ignored for a longtime. Blasting is no longer simply a rough preliminary cleaning treatment; it is a part of the finishing process. The abrasive blast machine has been designed for a specific application. If you expect to achieve acceptable results, it must be monitored and maintained.

The best way to maintain a Blast Machine is to understand each segment of the process. Knowing how each part of a machine functions is important but understanding why the parts function

the way they do will take your productivity and efficiency to another level. Many of the parts of a blast machine serve multiple purposes and there must be a balance found within them all, so everything works in harmony, but they can also work against each other if neglected. There is no specific setting to make a Blast Machine run correctly, but the process can be controlled to a certain extent with proper planning.

The end result of a properly functioning, well maintained, Blast Machine is one that has a balanced Operating Mix, and it is throwing abrasive at the targeted area. The Operating Mix (or working mix) is the abrasive mixture in the machine, consisting of small, medium, and large particles. This mixture occurs as a result of the abrasive being cycled through the machine for a period of time long enough to allow the new abrasive to break down into smaller pieces. Adding the correct amount of new abrasive at the same rate at which old abrasive is wearing down is where that balance is found. Making sure the Operating Mix is balanced is a key factor in the overall efficiency and productivity of the machine.

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