

## Back to Basics: Lessons from Your Mother....



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### ARTICLE TAKEAWAYS:

- How it looks is how it runs
- Run it till it fails is flawed logic
- Preventative Maintenance pays huge dividends

The road to getting back to “normal” is definitely routed through get “back to basics” town. It’s time we do some thinking about how we can return to those things that are so easy to ignore, overlook, or more accurately, just choose not to do.

Our sales team at Molten Metal Equipment Innovations spends lots of time in our customer’s facilities and some time in our own facility. In both places, they are constantly presented with simple opportunities to do things that can significantly impact the business operation. Most of these things are known, and it generally is just a question of making them a priority. Just like my mother would tell me to clean my room, and I’d find a way to do anything but that, we all have simple ways to get back to some of the basics when it comes to cleanliness and maintenance. Re-committing to these activities can provide major benefits to your operational and financial performance, and improve employee and customer satisfaction.

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***Takes you  
5 minutes to clean  
your pump well.***

***Do it once a shift.  
Every shift.  
Every day.***

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### HOW IT LOOKS IS HOW IT RUNS

Early in my working career, I had the opportunity to spend time with a mentor in our company who told me that you could learn most of what you needed to know about a (manufacturing) company by asking to use the bathroom. All bathroom doors remain closed, so it’s an easy place to hide a mess and to see what the company culture is all about. Clean bathrooms are generally found in companies where there is a culture that values how common spaces are maintained, and you would expect to see the same on the plant floor and in the offices. Dirty bathrooms generally are indicative of a company culture that does not value cleanliness and thus the operations reflect that same approach. This may be a bit too simplistic, but I would say that it has proven to be true more often than not, and that cleanliness is a basic that we should all embrace. In our own plant, this is a big deal as we machine graphite and thus create a lot of dust. The dust gets everywhere despite all the things we do to try to prevent that. It requires us to add preventative maintenance steps to ensure that our CNC equipment is not negatively impacted by this reality of our operation. To not do that would be very expensive.

Given that most of our attention is in and around furnaces and pump wells, this is the biggest area of focus for us when visiting our

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# SIMPLE SOLUTIONS THAT WORK!



*Clean well after 4 years of routine cleanings*

customers. The attached pictures show examples of best-in-class pump well cleaning, and how it looks when you don't address the issue. Like cleaning your room each day for 5 minutes, this is easy maintenance to perform and if done every day/shift, has a huge positive impact on the operation

both in terms of lower cost of operation and much-improved uptime. Furnace cleaning can require scheduled downtime, and so may not be as "easy" but it is every bit as important, if not more so. There are 2 things that are going to happen to your metal in the furnace. One, and the one you



*Dirty well, no cleaning*

want, is that it is going to be sold to your customer at full value. Two, and the one you certainly don't want is that it is going to oxidize or otherwise become unusable and thus near worthless. The way you maintain your furnace and keep it clean has everything to do with how much value you will receive from your metal. The ROI on this equation is always positive and should be one of the basics we all do in accordance with a scheduled maintenance and housekeeping program.

## **TEACH AND TRAIN**

It has been very challenging to attract and retain good employees. I wish I could say this will change for the better soon, but I just don't have that crystal ball. In most operations, there are great core team members who have been the foundation upon

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# SIMPLE SOLUTIONS THAT WORK!

which the businesses have been built. They are the ones who, now more than ever, can determine where and how the company goes forward. They have the know-how and the time in the saddle to be the ones who can both teach and train. It is important to do both. In looking again at our pictures, we can see one example of a pump well that is being very well maintained and where we can be certain we will achieve higher levels of operating performance. On the other, we can see where we are going to now have to spend much more time fixing a problem that is a direct result of not doing the easier, more frequent cleanings that would prevent this from occurring in the first place. To a newer employee, these pictures would be good educational tools to demonstrate what we want in one case, and what we don't want in the other. Ideally, the pictures could be mated up with other written and visual teaching aids to address the "why this is important" questions and to also show how it impacts their job as well as the broader company. If employees have the educational foundation as to why it matters, they can then be trained much more easily and effectively to do what is desired. When you don't know why you are doing something it often is much easier to look at it as just more work.

## **IF IT AIN'T BROKE, YOU STILL MIGHT WANT TO REPLACE IT**

We all know the adage, "if it ain't broke, don't fix it", and there are lots of places in a manufacturing business where that is sage advice. There are other places where running until failure can significantly increase unplanned downtime and maintenance expenses. Not surprisingly, in our business we see our Japanese

customers adhere to this principle most stringently and replace consumable pump parts prior to failure so that they can be in control of the operation vs. being at the whim of when the part decides to fail. Utilizing usage data allows them to manage this process in a way that generates cost savings, as well as increases in equipment uptime that outweigh getting another few days of use from a consumable part. This is not a common approach in other markets, and I would suggest that it would be worth more exploration, especially at a time when our best human resources are stretched so thinly. It is much easier to pull a pump, immediately put in a backup, and do the necessary maintenance as part of a scheduled PM event, than it is to react when something breaks and not do all the necessary other maintenance that can make such a difference. Pilots are told "stay ahead of the airplane" and generally, that means thinking a few steps ahead and doing what they can do now to be ready for what is coming next. The same approach to our manufacturing equipment and operation can yield huge benefits.

## **MAKE IT VISIBLE AND KEEP RECORDS**

Lean manufacturing principles focus on repeatable work and the root cause issues that enable us to achieve that outcome. For most of us, machine uptime is a key objective and one that determines so many of our desired outcomes, including customer satisfaction, financial performance, and sales growth. We invest in sophisticated equipment technology and with it comes necessary maintenance to ensure both operation to the specifications, as well as achieving the expected useful life. How we

treat the equipment will determine how we do on both outcomes. Our maintenance program should incorporate all the elements to achieve both. It should also be visible not only to the maintenance team but to the operators and facility management. The more we can communicate what we are doing, the more effective it will be and can be more easily managed. Similarly, the record-keeping needs to be robust. Not only so that we know what we did when and why, but so that we can look towards the continuous improvement process to drive future performance. Speaking from recent experience, I know that we have seen this slip within our own company as we have struggled to attract and retain the right resources. It has caused us to rethink how we are doing things and to elevate the priority of our preventative maintenance program so that we see the improvements we know we can achieve. This investment will pay dividends in many forms.

## **BACK TO BASICS**

The Chinese proverb, "dig the well before you are thirsty" captures the essence of getting back to the basics of cleanliness and preventative maintenance. It sounds so simple and obvious, and yet most of us don't do it. We opt instead for a much less effective, much more expensive, and much more time consumptive way of slaking our thirst well after we are parched. A return to some of the well-established principles and lessons that our mothers taught us as kids would go a long way towards seeing us all reach our desired outcomes.



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