

VIRTUAL REALITY IN MANUFACTURING – THE TIME IS NOW



The
Schaefer Group, Inc

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Virtual Reality (VR) answers the question to so many manufacturing's challenges from eliminating rework on the factory floor to proper training in dangerous environments— VR is proving to be a game changer in the manufacturing world.

As the only global aluminum furnace manufacturer that is using this technology, we can proudly attest to the many benefits of VR.



Attracting Employees

Enticing millennials' to join your company's workforce is no easy feat. Everyone knows that there are simply not enough engineers to meet the current demand. By showing our equipment in virtual reality, we easily attracted new engineers to join our firm. Today's engineers have many choices when it comes to employment. Demonstrating that your company is an early adopter of important leading technologies sends a powerful statement to those that are looking to join a progressive-thinking organization.

More Effective Training

Anyone that has worked in the foundry industry has experienced the new hire; after they see the heat of the furnaces— don't show up the next day. By showing them virtually what to expect, they can better prepare themselves for the thermal shock of standing in front of an 18000F open furnace door. Training in dangerous furnaces has never been an ideal training environment. In virtual reality they gain the confidence needed to properly maintain a furnace. A better trained employee, is a better employee hands down.

Reducing Marketing Costs

Think about this..what if your customer could look at and manipulate a 3D drawing to show all sides and underneath the unit— how cool that would be? Now imagine them putting on a pair of VR goggles and walking



right through the casing of your equipment to see how it works from the inside! They can look at the nuts and bolts, or understand how the pump works.

From a sales standpoint, so much more can be shown in VR versus a 2D or 3D drawing. The added benefit is that this also saves you a ton of money at trade shows, because equipment no longer needs to be shipped to the show. This saves our company over \$30,000 per show. Instead, the VR system is carried into the show and for about 1/10 of that amount, I can demonstrate to customers just about any furnace type we build.

More savings are realized as I am not getting to the show two days early to set up the booth (it takes literally 45 minutes to set up). No additional hotel bills or meals or days away from home. The ROI is phenomenal! The cost of everything more than paid for itself the very first show! Now we have done a total of 6 shows with the VR system and so we have saved over \$72,000 in three years that stays directly in our bottom line. Talk about cost effective!

Better Factory Floor Layouts

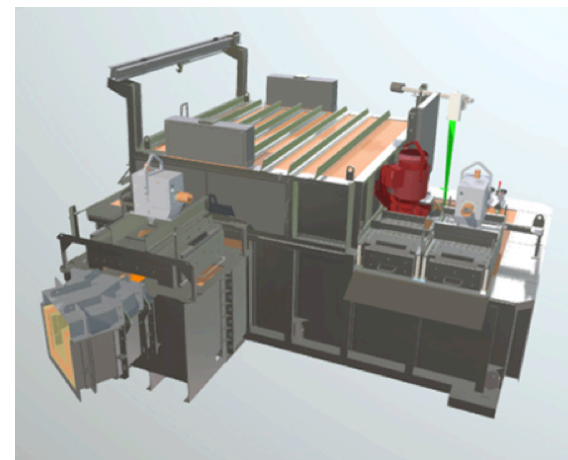
More importantly if you can put a customer's 3D layout in VR, they can actually walk around the die cast or foundry cell and make sure everything fits and there are no safety issues or logistics issues. How valuable is that to your production floor operators?

How often have you seen equipment after installation that doesn't quite fit in the space the customer had in mind. Maybe it's your fault or maybe it is theirs, but the problem is real and could have been avoided all together with VR.

Increasing Sales

Add VR images on your website, and you can feature your equipment for foundries or die casters globally. This isn't just for equipment manufacturers— a Die Caster or Foundry could add their robotic die casting cells in VR and show potential customers your process and expertise in making great castings.

We showed Tesla our furnace VR and ended up getting a contract with them to build a new furnace. When your customers realize you are on the cutting edge of technology they are eager to work with you. Our backlog proudly supports this premise!



Summary

3D CAD files, something that all companies have are all that's needed to make an environment or equipment into virtual reality. This affordable technology is readily available and offers so many advantages to any production floor, whether you are producing parts or equipment, the benefits are enormous.

You can market your company more effectively for less money than advertising, and present your company better at trade shows. All of these result in increased sales, at less cost. The bottom line is the VR system pays for itself and keeps on paying you year after year.



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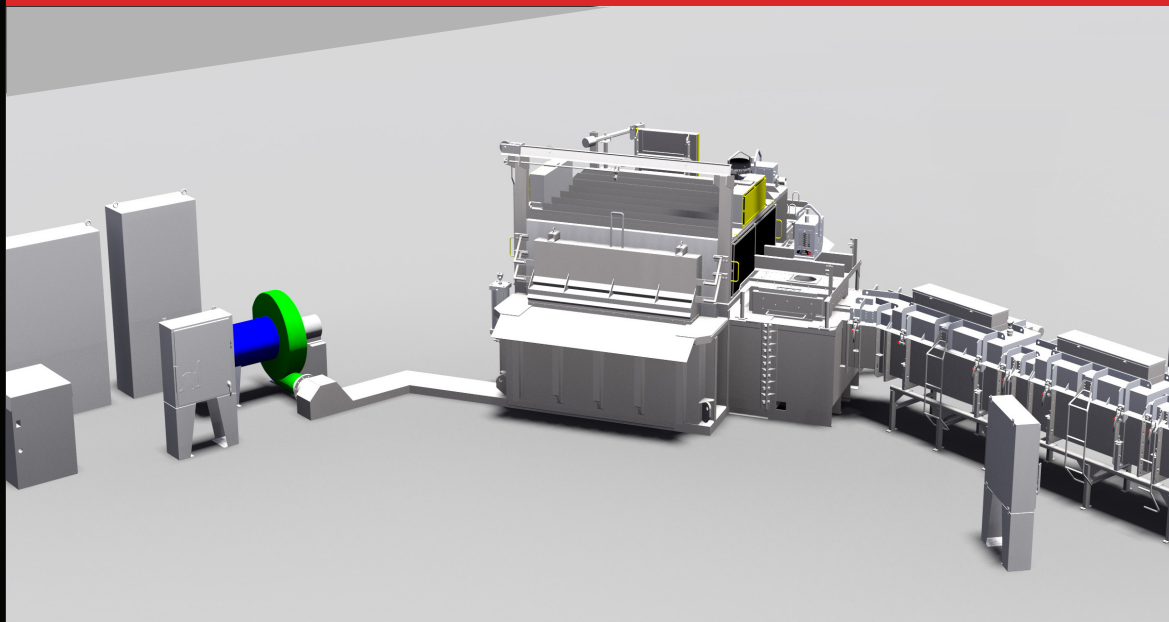
SEE MOLTEN METAL DELIVERY SYSTEM IN VIRTUAL REALITY

BOOTH NUMBER 905



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