Anything underlined in the body may be clicked to a direct hyperlink for more info
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Discussed topics are boxed to reduce the need to scroll pages - read each box as a section.

MetalLife NEWS ThermalLife®

Cavitation Effect
Study of Breakout and Lamination

Print this Newsletter

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IN THIS ISSUE
User Guide Links

No money, No time. This is the dilemma that faces die casters everyday. The money to do preventative maintenance is there but because of production demands, there is no time to do it. Or, production demands are down, so there is no money in the budget for preventative maintenance.

Extending tool life and improving performance to remain globally competitive is now a constant uphill battle for US die casters. Badger is committed to seeing the die casting industry in the US survive and feel we can address both of these issues. Plus what recently has been discovered, makes it even more critical to proactively keep your tooling in a healthy condition.

For years and after countless papers on die fatigue, breakout has always been accepted to be associated with heat checking.

Lamination problems have been thought to be due to uneven degrees of solidification, porosity, and poor fill.

All of this is about to change.

In this newsletter we will present to you for the first time a failure mode seen and studied extensively in fluid hydraulic systems that also applies to die casting molten metal but to date, no one has addressed even though it is listed as a mode of die failure.

Use the side bars at the left to become more informed on cavitation effect and how it is shortening your tool life.

Back to top

Badger is so convinced that we are addressing a key cause for breakout, that we are prepared to **guarantee our process.** That takes care of the No money issue.

To address the production issue, we are recommending that the tooling be processed not after sampling but **before ANY molten metal hits the surface.** That solves the time issue.

Also realizing that sometimes, changes need to be made prior to production, we offer to reprocess the tooling **NO Charge** or for significantly less cost depending on the degree of modifications made prior to production.

There is research that shows that the tensile stresses in tooling build very rapidly. So if you wait until sampling to do MetalLife®, damage has probably already started due to cavitation effect, thermal fatigue, and/or surface changes.

Prior to sampling, it is also easier to get preventative maintenance performed. We see everyday, how a sample approved die immediately begins running production until it fails. Then we are asked to fix it by putting back chunks of missing metal or closing large cracks which is sometimes not possible. This is usually at the point where the end user starts rejecting castings or the die has trouble running requiring either die repair or costly rework of the castings.

Also by doing it prior to sampling after engineering changes, we solve the issue of extra cost to again tear down the die.

Back to top

Tech Update Section back to topics

Tired of all the security issues with Internet Explorer but fearful of trying something new?

We know how you feel. It seems every time you try something new, it messes up something else on your computer. Not so with the open source browser, FoxFire.

Not only does it install in seconds, but you still can have your choice of browsers. The old internet Explorer or the new tabbed, fast, easy to learn FoxFire.

Badger too, was very cautious about trying it, but have since dispelled those fears. If you would like to try it, just click on this button:

Click to Dowload FireFox

It is only 5.7 Meg in size, and has an excellent help file. You probably won't even need to read it. You can still use Explorer but now you have a choice.

More tips to come in future newsletters

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