



## Cycletime Tips – Automotive

### Volume 47: The Forgotten Molding Factor (Part I of III)

Now that I've had the chance to visit many molding facilities around the automotive sector, it doesn't matter if you have the latest electric injection molding machine, or an old hydraulic clunker, a new tool or an old tool with a worn parting line, an automatic part removal system or if your parts are falling onto a Gaylord box lid converted to a chute. One factor stands out that is severely overlooked. What is this factor you ask? I call it either a "cooling strategy" or "cooling tragedy!"

Let me toss a few questions for you to review at your own facility:

1. Do you have a water flowmeter?
2. What are the GPM's (gallons per minute) through each flow channel of your mold?
3. Do your production molds have calcium or rust build up removed regularly?
4. Do you use ethylene glycol in your cooling chillers? If yes, how much? Why?
5. What is your water treatment strategy? How often is it tested?
6. What is the deadhead pressure on your mold temperature controllers?
7. How do you know if a water channel is blocked?

Be honest now! If you have good documentation, and answers to these questions your plant is most likely making money, because 75 percent of molding is cooling parts. Think of the length of time for each segment of molding: fill, pack/hold, cooling, mold open, ejection and mold close. A majority of molding time is waiting for parts to cool, yet little industry focus is on optimizing this stage of the cycle.

With smaller budgets, it is critical to establish a cooling strategy to reduce cycle times. Perhaps you could hire a cooling expert, or designate a champion at your factory to establish a strategy. You may be pleasantly surprised at the opportunity to improve production efficiency.

We will look at the cooling factor more closely in upcoming Tech Tips.

Best Regards,

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