**Flash—it’s not as cheap as you think**

Throughout the die casting industry, it is customary for the die cast operators to keep a putty knife handy to scrape flash off the die faces. Many operators even keep them in their hip pockets for convenience. Sometimes, I have found it almost impossible to even find a putty knife in the possession of an operator.

While flash may be a fact of life of our process, it is not acceptable in the levels we often tolerate.

Some misconceptions concerning flash:

1. *It helps vent the die.* Wrong! It allows uncontrolled loss of cavity pressure. It increases the thickness of the casting, the gates, and the overflows adding weight that is not in the quote.

2. *It doesn’t cost anything.* Wrong! Flash is only 20 percent recoverable, if that. On a recent automotive casting for example, we “spotted the die” to correct the flash problem. The machine had an auto ladle, so it poured the same amount of metal after the repair as it did before. However when we started back up, the biscuit was 1 inch longer than it was before we spotted the die. We were running a 3-1/2” tip. Therefore, we were loosing 9.621 cubic inches of metal every shot! That is 0.9621 lbs. of metal every shot! The casting was scheduled to run 8,000 pieces/wk. at 4 cavity (which we were seldom able to do during that period because of the problems caused by flash.) 8,000 pcs./4 cavity=2,000 shots × 50 weeks=100,000 shots/year. × 0.9621 lbs. /shot=96,210 lbs./year × $0.75/lb. =94,500 /year!

3. *Safety:* We have all experienced the discomfort of being burned by flying flash. In most cases, this is minor. However, worst case can result in lost time injuries and lost time.

4. **Housekeeping:** Much of the “trash” beneath the dies and on the floors around the die cast machines is flash. It becomes contaminated with die lube, tip lube, hydraulic fluid, die heater fluid, and water. This makes it virtually unusable as remelt. This is where a lot of the 80 percent number comes from in item 1. above.

5. **Lost time from restarts:** Accumulated over a 24 hour period, this can be a huge impact on quality, and productivity. Each restart can result in at least one and sometimes as many as three cold “start up” shots. They are either thrown out by the operator, which is the correct procedure, or later at machining after adding additional value to the casting.

By no means is this list complete, but I believe that the above has a major impact on our profitability.