



Cycletime Tips - Automotive

Volume 40: Automated Flash Removal

From time-to-time, we all have become embattled with that undesirable feature on injection molded plastic parts known as parting line flash. Whether it was due to mismatched parting lines, poor support, cavity over-pressurization, or mold damage, we generally strive to minimize it or remove it after it has been molded. In some cases, we are "stuck" with a mold that cannot be repaired and the flash cannot be economically removed. The purpose of this tip is to discuss an alternative to the knife wielding machine operator.

Periodically, we see an open flame used in applications using TPO, PP, and even ABS. The hazards are many and one safety incident can serve as a major financial setback for your company. Other flash removal methods involve box cutters, hand held burr removal tools, and the trusty pocketknife. Accuracy is the primary concern here and what can happen if the hand slips. Best case, a bad part is produced. Worst case, an associate makes a trip to the hospital.

Automated flash removal removes much of the human-error factor from the equation. The thought being, to have a multi-axis robot follows a specific path on a fixtured plastic part. We immediately raise flags regarding part shrinkage and the potential for enacting this operation "in-line". This is exactly why other means of automated flash removal has been ineffective. As the part changes dimensionally with time, the cutter path must evolve as well. Recent developments have provided the answer. Due to some recent technological enhancements, we now have the ability to provide feedback to the robot. This allows us to precisely control the trimming operation and maximize efficiency.

The cost-impact for such technology can be reduced if the automation can be used on several jobs. The beauty of robotics is the programming feature that provides significant task flexibility. If you constantly battle the same old flash concern whether it be material or part specific, this might be worth a try.

Please let us know if you'd like more information regarding this method.

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