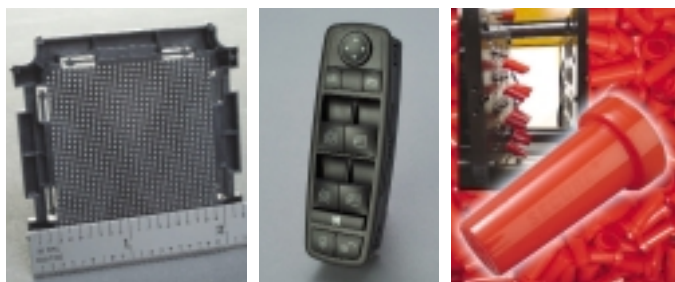
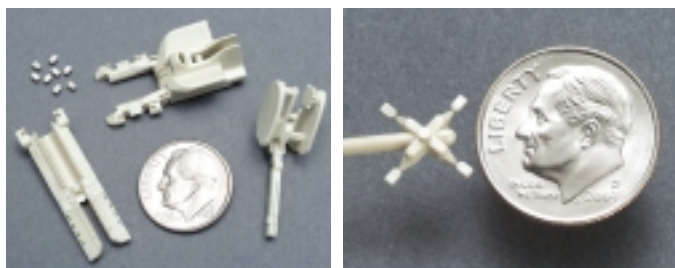


## Case Study

# Annual purging costs cut by \$41,000 and purging time reduced by 75% when molder switches to Dyna-Purge®.



Process Engineering Manager, Brent G. Borgerson, was using in-house resins as well as commercial purging products to clean a 28-ton Arburg press for material and color changes, yet was experiencing unfavorable scrap rates and other purging problems. **After switching to Dyna-Purge, Matrix Tooling, Inc. has cut purging costs by \$41,000 annually, reduced purging time by 75%, and eliminated odors previously associated with their purging process.**



Matrix produces high-precision plastic parts for the medical industry and other applications. **Using Dyna-Purge for frequent purging has resulted in a lower initial rejection rate due to material or color contamination and an estimated 68% decrease in purging costs.**

### Situation:

Matrix Tooling, Inc., Wood Dale, Illinois produces custom molded parts for the medical industry as well as specializing in 3-D mold design and moldmaking. **The company operates 10 injection molding machines including a variety of Arburg, Engel, and Toshiba models.**

**Purging takes place an average of six times daily when changing material and color**, notably black ABS/PC to crystal styrene, PEI to styrene, or acetal to nylon. Whether using in-house resins or various commercial purging agents, **Matrix was experiencing unfavorable scrap rates and initial rejections due to material or color contamination from the purging process.** Labor and material costs of purging were calculated at \$35.25 per purge, and workers noticed unpleasant odors associated with purging.

An Arburg 28-ton, cold-runner system, with a screw size of 18mm and barrel temperatures ranging from 380°F to 600°F (193°C to 315°C) was tested when investigating alternative purging methods.

### Solution:

**Use Dyna-Purge M**, a versatile grade designed to purge cold-runner injection molding systems for a wide range of resins at 350°F to 600°F (177°C to 315°C).

### Results:

- **The average cost per purge using Dyna-Purge is only \$11.13 - a 68% improvement, which represents an annual savings of \$41,000.**
- **The initial rejection rate from material or color contamination improved dramatically.**
- The company now stocks one purging compound instead of three.
- Since Dyna-Purge has a fresh, citrus scent, the odor issue was solved!

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