

## CASE STUDY - THE NETHERLANDS

# Injection moulder cuts downtime by 83% and gains over 1,100 machine hours using Dyna-Purge® for changeovers.



According to Arjan Welboren, Production Manager, Egmond Plastics would spend approximately three hours to clean the screw and cylinder manually every time one of its 20 injection moulding machines needed to be purged. With Dyna-Purge E, it now takes only 30 minutes to purge, reducing downtime by 83%.



By using Dyna-Purge E to purge during changeovers, such as switching from a high-temperature engineering resin to a low-temperature resin, **Egmond Plastics has gained over 1,100 machine hours annually** to produce parts and products for the aerospace industry and other industrial and consumer applications. The blue-green lids shown above, produced using PEI, illustrate how effectively Dyna-Purge E cleans.

### Situation:

Founded in 1968, Egmond Plastics B.V., Alkmaar, The Netherlands is an injection moulder also specializing in the production of parts using the melting core method. The company operates 20 machines ranging in size from 25T to 440T. In addition to using standard resins PS, PE and ABS to mold application side panels, industrial coffee machines and miniature truck models, Egmond Plastics processes a variety of specialized materials for aerospace and other high-technology applications. These include PEI and PC to make parts for scanner systems, PEEK to produce fuel pumps for military fighter jets, and PES to build integrated water boilers.

Purging to change materials, such as switching from a high-temperature to a low-temperature resin, **Egmond Plastics would have the screw and cylinder cleaned manually, a three-hour exercise.** With nine or ten changeovers per week, the company was losing 27 to 30 hours downtime every week for purging. Multiplied over the course of 52 weeks, the cost of lost production time was calculated at 1,404 to 1,560 machine hours annually.

### Solution:

Upon consultation with Paul Hendriks of De Monchy International B.V., Arjan Welboren of Egmond Plastics **tested Dyna-Purge E, a thermoplastic purging compound. Dyna-Purge E is a specialized grade** designed to purge the cylinder and screw of cold runner systems for high-temperature, engineering resins processed at 310°C to 391°C (590°F to 735°F). De Monchy International ([www.monchy.com](http://www.monchy.com)) is the distributor for Dyna-Purge in The Netherlands.

### Results:

- Since Dyna-Purge takes only 30 minutes to clean the screw and cylinder, **downtime has been reduced by 2-1/2 hours per changeover** - an 83% improvement.
- Purging nine times per week with Dyna-Purge E **means an additional 1,170 machine hours are available to Egmond Plastics annually** to devote to increased production, productivity and profitability.

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