

rpm spectrum

The individual phases of development that each product undergoes are always customized. Depending on the characteristics and the intended use of each component, we come up with the most appropriate, product-specific design and production methods for each situation. At rpm, you find the complete spectrum of established production processes, from the first design model to series production, all under one roof. This means that we can offer you the best-possible solution in each case.

Our project management begins with the analysis of the request at the very outset and includes both technical consulting and the optimization of cost planning and scheduling.

The use of the most advanced production processes as well as our own research projects in material processing and production technology, combined with highly qualified and motivated employees, make rpm one of the leading development partners – from prototyping to series production.



Injection Molding



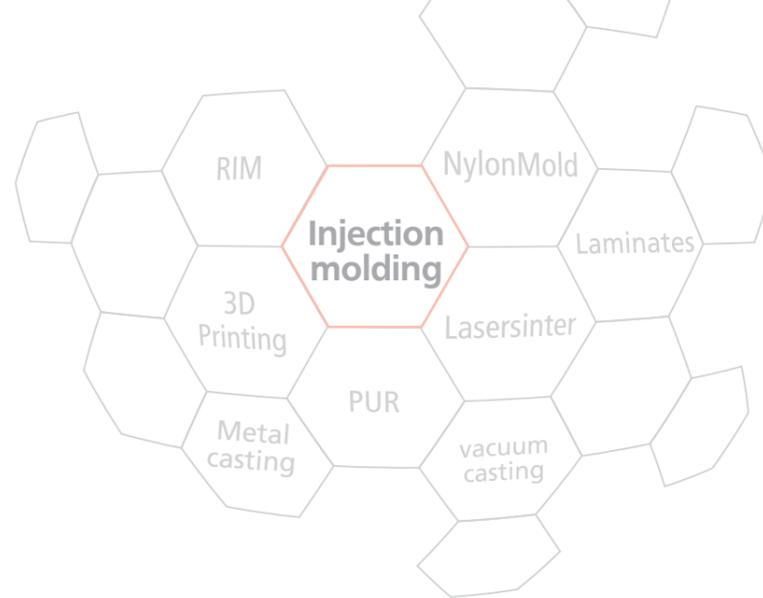
rpm GmbH
Dieselstrasse 15
38350 Helmstedt
Tel: +49(0)5351 - 525 900
Fax: +49(0)5351 - 525 901
www.rpm-factories.de
mail@rpm-factories.de

rpm spectrum



rpm spectrum

At rpm, you find the complete spectrum of established processes, from the first design model to series production, all under one roof. For one thing, we can offer you the best possible production process for your product and its intended purpose in each case: from generative layer construction processes (SLA, SLS), to GFK laminates, PU vacuum casting and RIM, all the way to NylonMold and injection molding. For another, this guarantees continuous and thus extremely effective project planning through the individual stages of a product's development. Our project management includes designing for production as well as the uncompromising quality of the components, in constant balance with budget optimization and scheduling.



Injection molding – uncompromising series quality

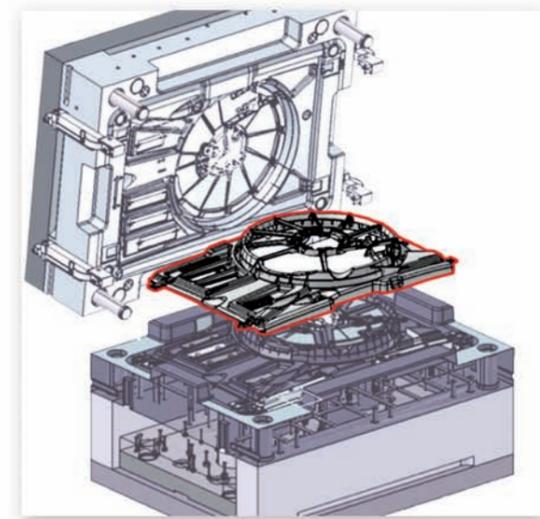
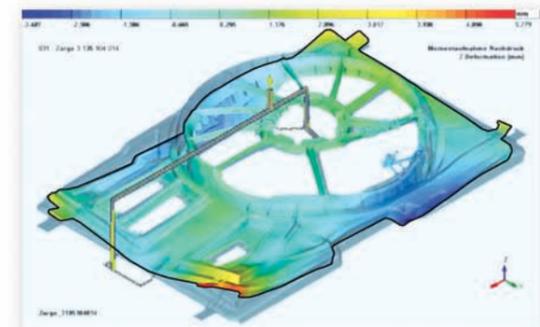
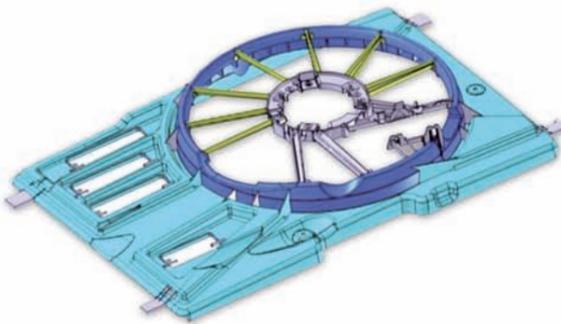
At rpm, injection molding is part of a technology spectrum offering all the options from prototyping to series production.

The analysis to determine which production process is best suited for your project is based on your plans regarding quality requirements, the timeframe and the budget. At the same time, a truly customer-oriented selection can only take place from a neutral position. To guarantee this, we have a broad range of diverse production technologies in-house.

In addition to the NylonMold process, we offer traditional injection molding for preliminary and short production runs. Aside from polyamide, a broad array of other materials is available.

As with each process in our spectrum of technologies, the high quality standards that are typical of rpm apply to injection molding. This is true for all components moving through the production process, and the quality starts with the selection of the raw material.

- Design data set
- Fill simulation + warpage calculation
- Tool design
- Complete component



Component made of talc-reinforced polypropylene with integrated seal made of PUR foam

We basically process only high-quality granulates in accordance with industry standards and offer a comprehensive range of materials derived from them. In each case, the best possible raw material is used, depending on the requirements for the component to be produced.

CAD programs are used in the tool's design and manufacture. By means of numerical simulations and CAD programs, we are in a position to determine key factors – such as mold filling, runner balance, dwell pressure and warpage – in advance. All the processes, from data entry to tool design and manufacture, all the way to the finished part, have been assembled under one roof. This produces an extremely precise, effective and efficient workflow.

The available machinery allows the production of one-piece products up to a size of 1600 x 1250 mm. Larger components can naturally be produced as multiple parts. The injection molding equipment works with a locking force of 30 t to a maximum of 2000 t. To ensure the smooth exchange of data, the connection handles all relevant formats and is compatible with all the systems in use.

2-component injection molding

It is possible to manufacture products composed of several materials, across the range of single-piece products, from extremely small technical components to bumpers, among other components.

Flexible, foam seals made of silicone or design elements such as a metal threaded rod or grommet can be precisely and firmly integrated into the appropriate component.



Component made of polyamide 66 GF30 with integrated metal threaded rod.

rpm injection molding at a glance:

- neutral cost-benefit analysis for the selection of the best-possible production process
- computer-supported optimization of the tool design, including warpage calculation
- own tool construction
- maximum size of installation space: 1600 x 1250 mm
- production of 2-component parts
- continual project management through ALL phases of product development