

# More Than Injection Molding

Specialty offers custom machining, assembly and finishing services to its customers.

**A**lthough the major portion of Specialty Manufacturers' business is dedicated to providing custom injection molded plastic components to our customers, we find that many of our customers also rely on our manufacturing facilities for much more than just injection molding. Many of our customers need custom machining, assembly, and finishing services to compliment their injection molded components. Specialty Manufacturers can provide our customers with a long list of additional services to add value to the injection molded component.

## CUSTOM MACHINING

Some components require the addition of machining steps to add features to molded components. In some cases we can set a machine next to the molding press and machine the components shortly after they come out of the mold. In other cases we move the components to a machining center to have the work done.

Specialty Manufacturers' D&M Tool division provides custom machining of components in plastic and metal as well as providing molds for the plastic

injection molding and metal die casting industries.

"We have developed a system for one of our customers that has allowed us to go from providing machined components during the development stages, to providing a completed assembly with 25 machined components, 24 purchased components.", stated Bill Gilbert, President, D&M Tool Corporation. We machine the components and send them out for plating.

Once they are back in our plant we assembly them into the final product and ship them to our customer.

This has allowed the customer to focus more of their time and activities on their major product.

## PAINT AND LASER ETCH

Apollo Plastics offers a variety of painting and laser options. "We produce over 10 million painted and

## VITAL STATISTICS

**Date Founded:** 1958  
**Locations:** Indiana & Illinois, USA  
**Square Footage:** 126,000  
**Annual Sales:** \$26 million  
**Markets Served:** Automotive, Consumer Electronics, Medical, Safety, Telecommunications, Appliance  
**Parts Produced:** 22 million per month  
**Materials Processed:** Most engineering grade thermoplastics  
**No. of Employees:** 220 in four locations  
**Shifts Worked:** Three shifts, five days per week.  
**Molding Machines:** 79 injection molding machines ranging from 7 ton to 390 ton.  
**Secondary Operations:** Painting, pad printing, hot stamping, silk screening, laser etching, assembly (high speed and manual), ultrasonic welding, machining.  
**Cad Capabilities:** ProEngineer, SDRC I-DEAS, AutoCad, Cimatron 90 3D, MasterCam, Pro Mold, ProManufacturing, ProSurface, SDRC/ Artisan, Prospector mold and path generator. File transfer capabilities include: FTP, modem, and email.  
**Internal Mold Making:** 48 Metal Working machines including 14 CNC Machines for Wire EDM, Carbon EDM, Milling and Turning.  
**Quality Management Systems:** QS 9000, ISO 9002, ISO 14000, cGMPs

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laser etched buttons and knobs per year.", says Alberto Silva, President, Apollo Plastics. We have two fully automated chain on edge paint lines and a number of smaller manual paint booths for handling any quantity of job. Our laser etching equipment is state of the art. We have the capability to produce multi-color, lighted, graphics on a single surface.

## ASSEMBLY

All divisions of Specialty Manufacturers provide assembly for our customers. From jobs as simple as placing Tinnerman Clips on plastic components for the automotive industry, to complicated assembly and testing of subassemblies and final units for the medical device industry.

Some assembly work is performed manually by employees while others are done on high-speed machines, designed and built by Specialty Manufacturers.

"Where possible, we use the poka-yoke system for error proofing the jobs we run at PRD", stated Jeff Hamer, Engineering Manager. High speed assembly equipment is a great way to assure our customers they will receive defect free assemblies.

A good example of this approach is the Thrust Plug Assembly PRD manufactures for Visteon. PRD worked with AdapTek Automation of Ft. Wayne, IN to design

and develop the high speed automated assembly equipment. PRD molds the plastic plugs and purchases the O-Ring. Once per shift, an operator loads the molded components and the O-Rings into separate hoppers and takes away the bagged finished assemblies. The machine does the rest. The components are moved down conveyors to the assembly and inspection head. The machine assembles the two components and inspects the assembly to assure the O-Ring is present and in the proper location. Acceptable product is sent to a "bagger" and defective product is sent to a "lock box" to await review by Quality Assurance. The lock box assures defects do not get mixed in with acceptable product. The machine accomplishes all this with a 3 second cycle time. Compare that to a manual assembly time of 10 to 15 seconds and a possible defect rate as high as 5%. "There is no way to keep the customer happy without the use of fully automated assembly equipment", stated Jeff, "and with this equipment we can guarantee 100% defect free assemblies."

## MOLD MAKING

D&M Tool houses a modern, fully equipped machine shop for the manufacture of plastic injection molds and metal die casting molds. For a complete list of our equipment and capabilities, visit our web site at: [www.spcmfg.com](http://www.spcmfg.com).

### *Divisions of Specialty Manufacturers, Inc.*



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