

CHINA ARRAY PLASTICS

EXPERIENCE COUNTS

By Mark Stephen, managing editor

There's no shortage of plastics processors looking to break into the medical parts market nowadays. Not many of these shops, however, engineer their products in the U.S., manufacture them in China, and then sell them into Canada. And even fewer have prolonged experience working with the type of high performance materials required in most medical parts.

China Array Plastics fits the bill on all counts.

Founded in 1980, the custom injection molding company has sales and engineering offices in Pittsfield, Mass., an injection molding facility in Wuhan, China, and customers that include award-winning medical parts supplier Canica Design, of Altamonte, Ont.

A longtime molder of complex electronic and aerospace components, China Array began manufacturing medical-device parts in 2008. According to Carl Olson, vice president of sales and marketing, the company was able to adjust to the demands of medical suppliers relatively easily, due to its history of molding high performance materials. "Our company was set up specifically for molding high performance plastics in China," he said. "This gives us the experience to work with polysulfone (PSU), polyetherimide (PEI), polyetheretherketone (PEEK), all of which are commonly used in medical-device parts."

Branching off into the medical molding industry was a welcome development for the company, Olson said. "Compared to other injection molding markets, the traditional markets for high performance parts are limited, because the materials are very expensive and the volumes fairly small,"



Molding parts at China Array's Wuhan, China Facility.

he explained. "The medical parts market, by contrast, is growing rapidly, even through the present economic slowdown. Medical OEMs are seeing the advantages that high-end thermoplastics have over metals, glass and lower-performing plastics, offering a tremendous opportunity not only to China Array, but to the plastics industry as a whole."

THE BEST OF BOTH WORLDS

Olson points to the mix of Asian and North American elements as one reason for China Array's success in the medical-devices market. "We're able to combine the low manufacturing costs associated with molding in China with the expertise of our U.S. technical staff; too many mold shops have a limited number of technical people that they can call on when doing high performance molding of medical parts," Olson said.

Medical manufacturing currently makes up approximately 25 per cent of the company's business, Olson said, a number that is expected to grow. He also

noted that, at present, the company is not molding any implantable medical devices. "Our products are used either in general surgery or analysis," he said. "They have to be clean, of course, but we don't have to guarantee sterility." China Array uses portable, softwall cleanrooms, but is planning a dedicated cleanroom for an expansion project set for the end of 2009, allowing the company to compete for an even wider range of contracts.

The company is also planning to mold medical parts for the Chinese consumer market. "This is a huge growth market, given the growth of a middle class that is now expecting and demanding health care," Olson said.

Although the core of China Array's business is high performance materials for high performance applications, the company will also take on less stringent jobs. "We're quite happy to do low volume production runs to accommodate our customers, and then work to get larger orders of high performance parts," Olson said. "It's a necessary step nowadays in setting yourself apart from the competition."

The company also assembles many of the parts that it molds. "Our interest in doing assembly is that it allows us to control the tolerances," Olson said.

"I've seen mold shops that were quite proficient at certain types of molding but didn't have the experience of controlling quality or controlling other features," Olson said. "We feel the advantages we have are a good working knowledge of the medical industry, and an even better working knowledge of what it takes to do high performance parts."

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