HyRobotics aims technology at N. America
By Steve Toloken
PLASTICS NEWS CORRESPONDENT

CHICAGO (June 27, 9:50 a.m. EDT) -- South Korea is known for its fascination with mobile phones, and local robot maker HyRobotics Corp. is trying to use technology from that market to make inroads into North America.

The Incheon, South Korea-based firm showed an insert molding robot for North America at the show, using a new “air shooting” system it said can provide cheaper automation without using a Scara robot.

The company said its robot uses air to move inserts into place where they can be grabbed by other robots. It is designed for pre-insert molding and thin-wall applications like mobile phones and personal digital assistants.

The pre-insert molding process has less chance to damage parts than post-insert molding that uses ultrasonic technologies, the company said, although it can increase cycle times over its systems used with Scara robots.

The pre-insert process, which uses less design space and eliminates some post-insert molding processes, requires a special skill set to work with the tiny threaded inserts on molds. The very tight tolerances sometimes require replacing pins on molds, the company said.

HyRobotics has installed more than 20 of the patent-pending robots at South Korean and Japanese cell phone manufacturing companies this year, for about $75,000 each.

Sam Lee, engineering manager for North America in the company’s St. Louis warehouse and sales office, said HyRobotics has not sold much in the United States, but believes North American molders who work for handset makers such as Nokia, Motorola and Sony Ericsson would be interested.

In addition to the air-shooting method, the firm also has more-traditional and expensive Scara robot insert technology, which it said has faster cycle times and better reliability. HyRobotics said it installed 120 of those systems last year, each costing as much as $120,000 each.

Lee said the company has been making robots for the injection molding industry since 1988, but struggled after the International Monetary Fund crisis in South Korea in the late 1990s.

Since then, he said, the firm has worked on developing insert automation equipment that has been used by suppliers to Samsung Corp. and LG Electronics Co. — Korean firms that are among the world’s biggest mobile phone handset makers.