



APRIL 1999

Mold Maker's LINK

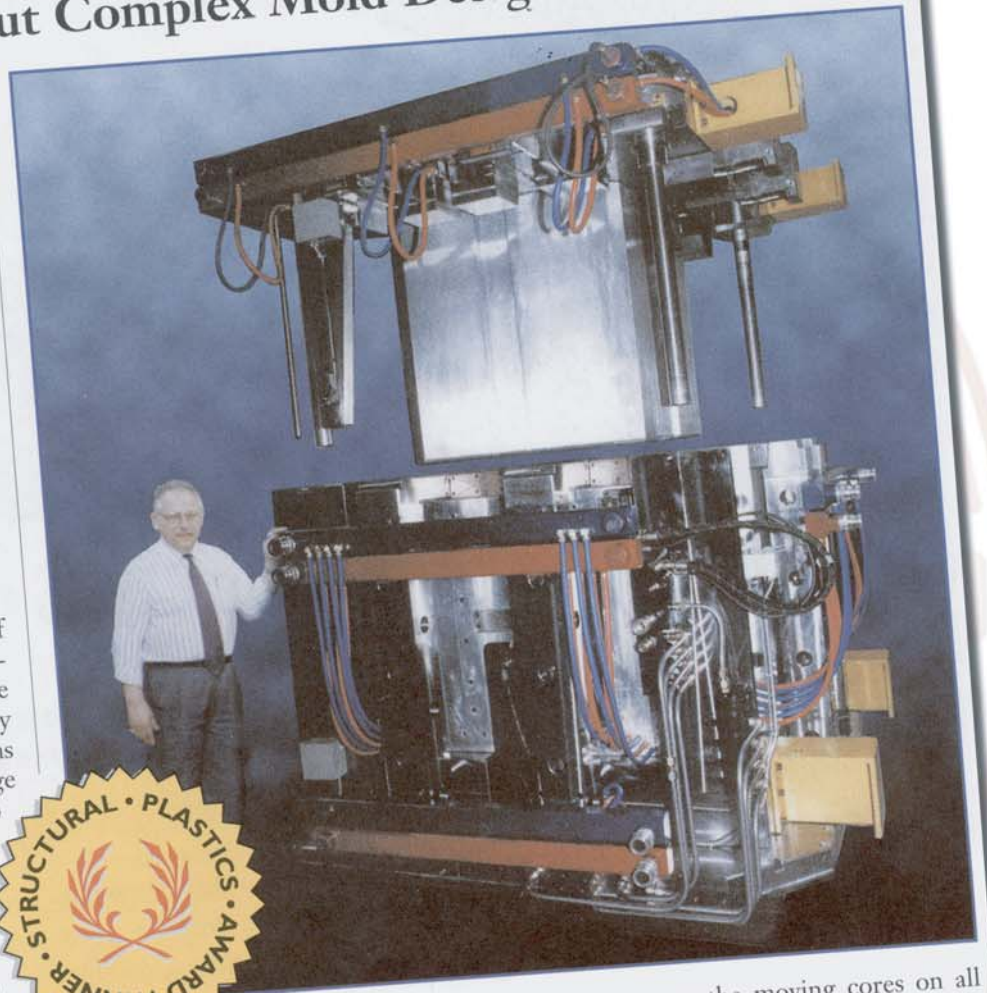
Simple Part Shape But Complex Mold Design Wins Award

Take a look at that mold. It weighs nearly 90,000 pounds; makes a blue-colored crate – and won First Prize in the Material Handling Category of SPI's Structural Plastics Awards. The award went to mold maker FGL Precision Works Ltd. (Concord, ON) and complements three previous awards in similar competitions.

"We are very proud of this achievement," "The mold that produced this part took close to 1,000 hours to design. The sheer size of the structural foam product stumped the judges, who wondered how it was manufactured."

Though it may seem like the size of the mold would be the determining criteria in this project, this was not the case. This mold had many extraordinary challenges, both in its design as well as during the mold build. One challenge was the customer's need to satisfy two markets: the vegetable and the liquid container markets. This meant that the part had to be molded as a solid, five-sided crate or with louvered openings on all five faces.

The only way to achieve this was by designing into the mold a series of interchangeable inserts that could be exchanged while the mold remained in the machine. Adding to the challenges were the difficulties in filling a mold with a 150 lb. shot. A series of gates along the underside of the part allowed



the plastic to flow partially up the 48 in.-high side walls.

Additional gates were needed on all four sides that would allow the part to be edge-gated along its upper lip. The design of these edge gates had to take

into account the moving cores on all four sides of the mold.
(For more details, contact FGL Precision Works Ltd. Fax: (905) 738-2423. Email: fgl@istar.ca. See page 21 for more Structural Plastics Awards.)