Structural Foam New Product Design Competition Awards

CONFERENCE AWARD
FIRST PLACE—OFFICE AND BUSINESS EQUIPMENT CATEGORY

KODAK IMT 350 WORK STATION

Eastman Kodak designed the Kodak IMT 350 Work Station in RIM structural foam because of its insert molding capabilities as well as its high strength-to-weight characteristics. The microfilm reader, weighing 150 lbs., was produced using twelve individual molds. All are insertable for producing multiples of size and configuration. The unit was painted with a two-coat polyurethane system.

MOLDER: Plastek Corporation Div. of General Industries Co.

TOOLMAKER: Model Die & Mold, Inc.

DESIGNER: Eastman Kodak Company

OEM MANUFACTURER: Plastek Corporation

OTHER: Portage Casting and Mold Springfield, Inc.

FIRST PLACE—CONSUMER & RECREATIONAL CATEGORY

DISC SAW HOUSING

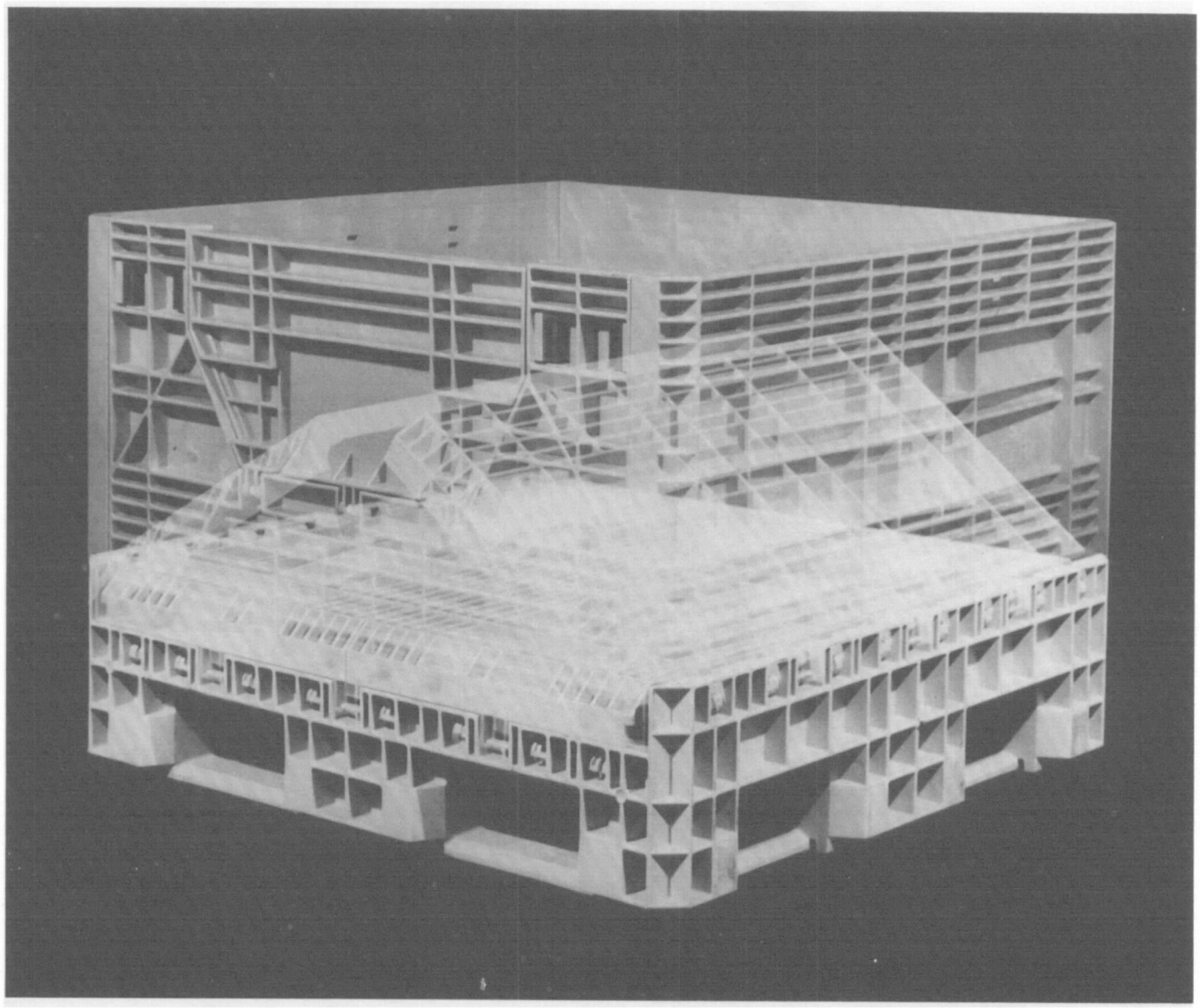
A Battenfeld coinjection molding machine was used to manufacture a 6 lb, unpainted, GPS/HIPS housing for a Black & Decker circular saw. Coinjection molding was chosen since painting was unacceptable for this application, and a no-sink surface was specified. A 1-cavity mold was used with two internal hydraulically-operated cores and a molded-in texture. High-impact polystyrene was used as the skin material and general purpose polystyrene was used as a core, a chemical-concentrate blowing agent was used.

DESIGNER: Black & Decker

MOLD MAKER: Coko-Werke

OEM MANUFACTURER: Black & Decker

TOOL MAKER: Coko-Werke



FIRST PLACE—INDUSTRIAL/MATERIALS HANDLING CATEGORY

MAGNUM COLLAPSIBLE BIN

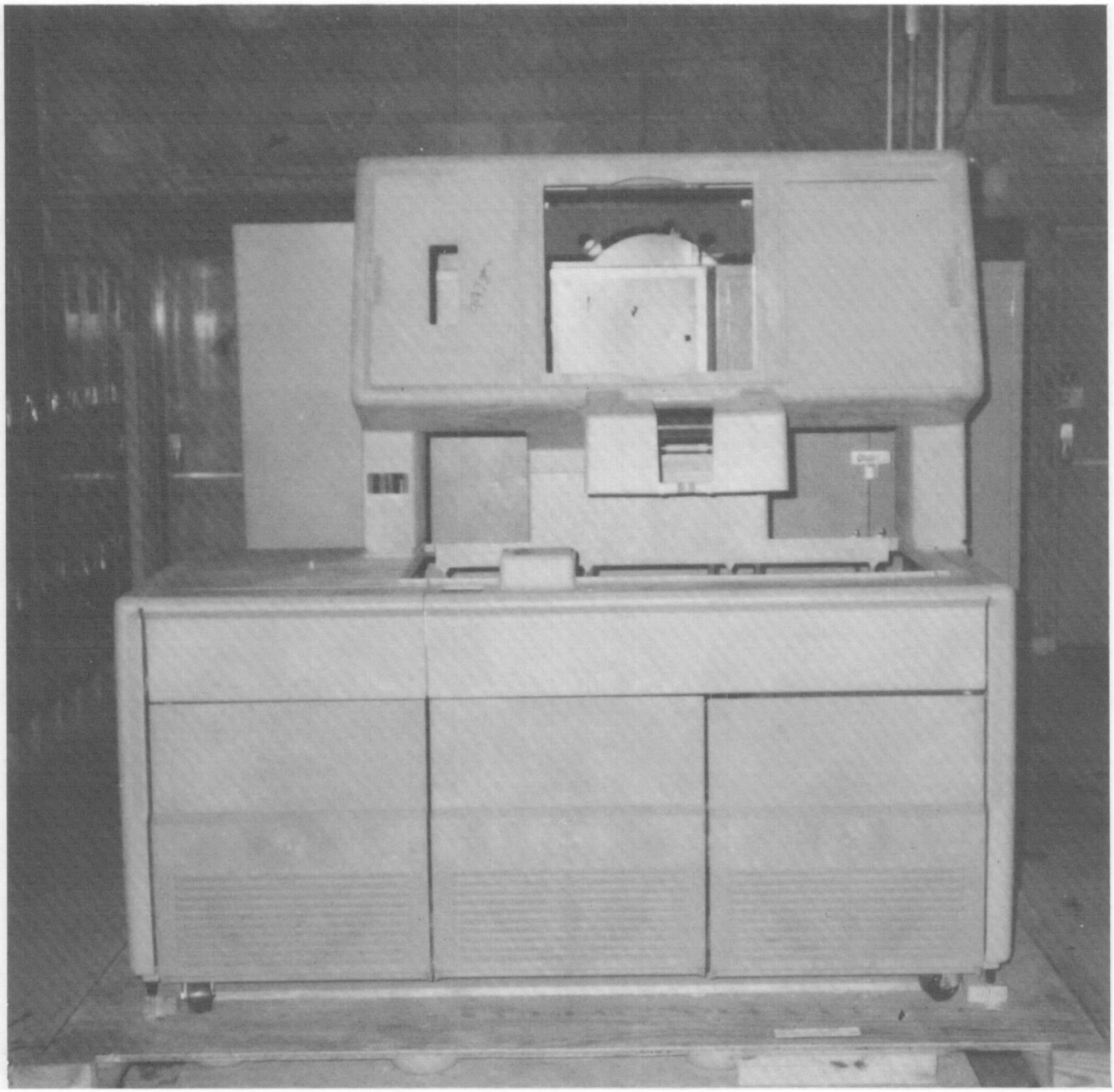
"The Magnum Collapsible Bin" is a creative development by Xytec. Produced from a complex three-cavity tool, CAD tapes were used to cut the tooling. The parts require 142 lbs. of polyethylene. Polyethylene was selected for its economics and chemical resistance.

MOLDER: Xytec Plastics, Inc.

TOOLMAKER: Tempress

DESIGNER: Xytec Plastics, Inc.

OEM MANUFACTURER: Xytec Plastics, Inc.



FIRST PLACE—MEDICAL CATEGORY

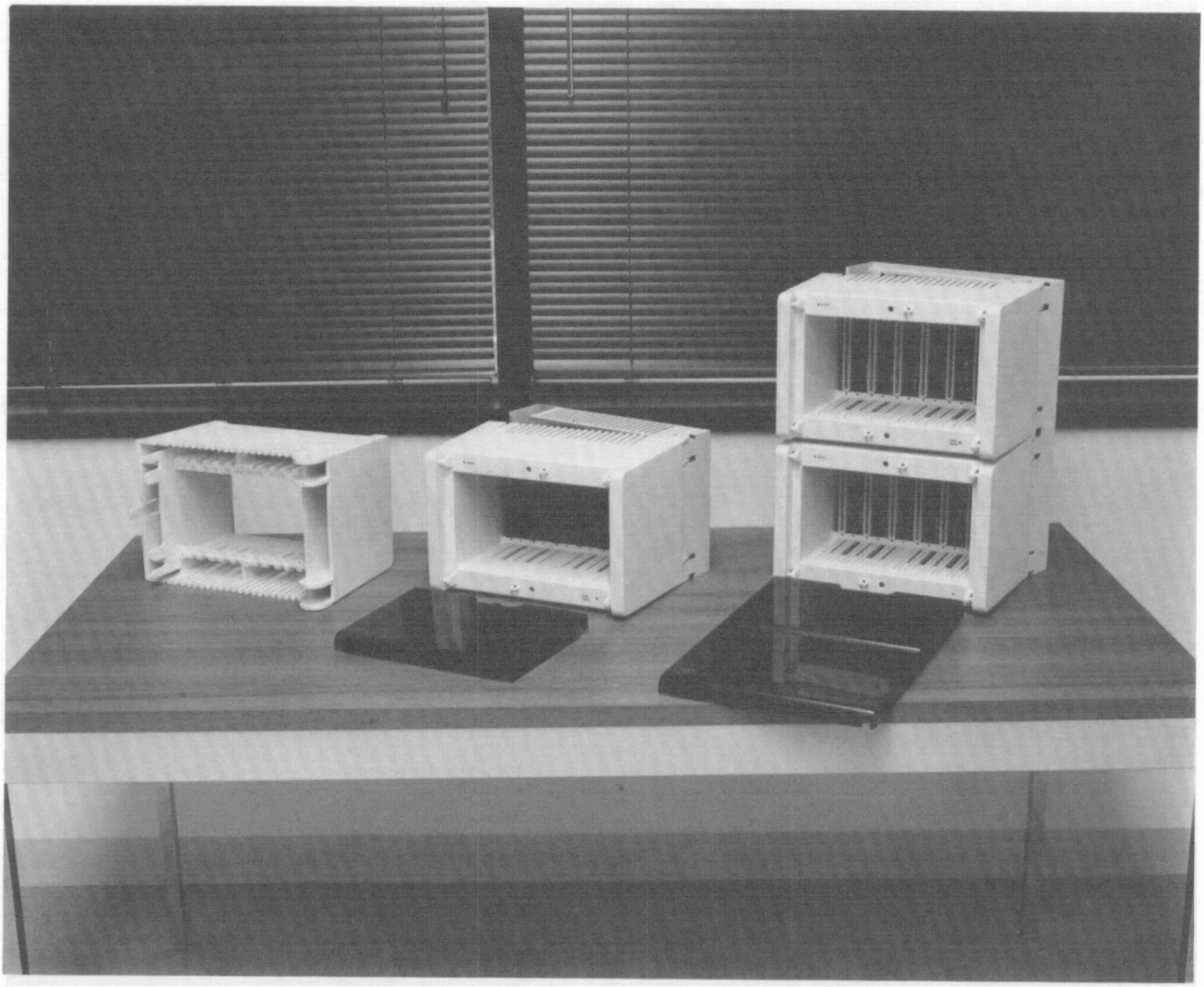
VANISH

The largest entry in the competition this year was Technicon Instruments Blood Analyzer. An 80″ × 32″ × 80″ construction, this product totals 350 lbs. of modified PPO/PPE and is finished with three coats of polyurethane paint. All parts are produced of cast Kirksite tooling.

MOLDER: North American Reiss Corporation

TOOLMAKER: W. K. Industries

DESIGNER: Technicon Instruments Corp.



FIRST PLACE—TELECOMMUNICATIONS CATEGORY

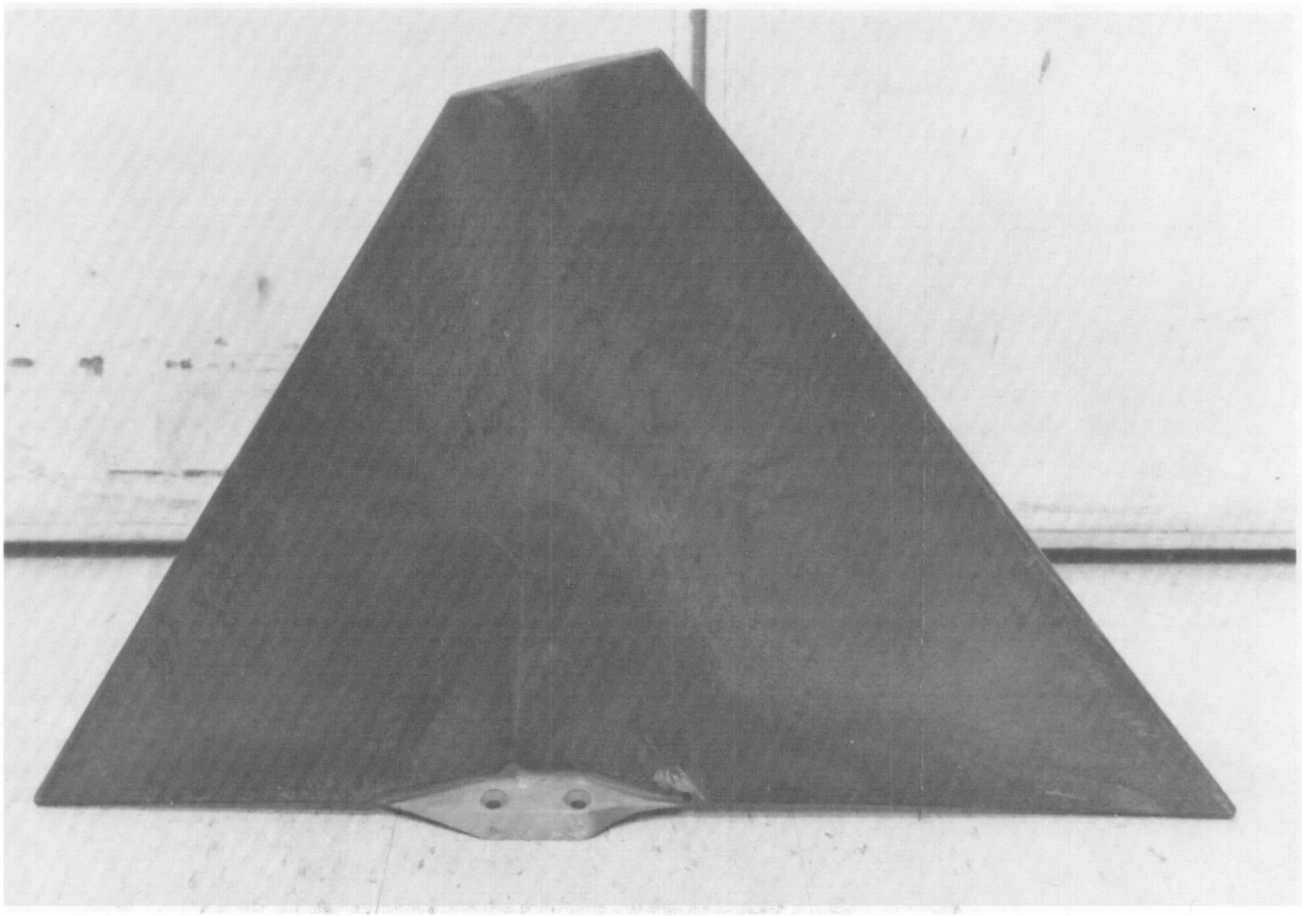
APPARATUS CASE

The tooling was produced from tapes for these Apparatus Cases for the telecommunications industry. These cases provide the mounting, power, and ringing necessary for printed circuit board assemblies. Polycarbonate was the material selected for its ultraviolet resistance, high modulus and impact strength. A molded texture in the single cavity steel tool helps disguise swirl patterns.

MOLDER: Cortina Tool & Molding Co.

TOOLMAKER: Aero Mold

DESIGNER: Michael Uffner, Tellabs, Inc.



FIRST PLACE—TRANSPORTATION CATEGORY

AIRCRAFT FUEL CELL STABILIZER FIN

McDonnell-Douglass realized a cost savings in producing their Aircraft Fuel Cell Stabilizer Fin in structural foam. Weighing 13.5 lbs., and molded in a polyetherimide with a chemical blowing agent concentrate, they have produced a structurally acceptable replacement fin for the Air Force. The gas counter pressure process is also used in molding this part to produce a smoother skin.

MOLDER: McDonnell-Douglass Astronautics Corp.

TOOLMAKER: McDonnell-Douglas Astronautics Corp.