

INTELLIGENT GLOBAL POOLING SYSTEMS



Keeping plastic pallets moving keeps this man busy

“This is the beginning of the end for wood pallets,” says Bob Moore, CEO of Intelligent Global Pooling Systems (iGPS Co. LLC), of Orlando, FL, operator of the world’s first RFID-tagged, all-plastic pallet pool.

Laws went into effect 18 months ago that disallow wooden pallets for goods for export to foreign countries that have not been fumigated, kiln dried, or otherwise certified insect-free. On July 5 of this year, the same ban went into effect in the United States.

Moore’s company plans to rent some 60 million plastic pallets to its customers. The plastic pallet-rental business is big—\$14 billion annually worldwide. There are approximately 1 billion pallets in circulation in the U.S., with 600 million replacement pallets produced annually, 97% of those wood.

“Pallets are one of those things that when you need a pallet you need it: and if you don’t need it, you don’t want to own it,” Moore explains.

As the pallet industry moves from wood to plastic, iGPS is spearheading a paradigm shift in the pallet-rental business toward uniform plastic pallets with RFID tracking capabilities. Moore began working on developing a viable plastic pallet in the mid-1990s.

“With plastic, if you make it stiff enough to hold goods—so that it won’t sag in an edge racking system—it becomes brittle. If a forklift hits the edge,

it shatters. So the key was developing a pallet rigid enough to sit in a rack but robust enough to withstand accidental

hits by a forklift,” Moore recalls. Another issue was getting the cost of the pallet close to that of wood. When Moore started out, the technology to achieve what he wanted didn’t exist. GE spent \$10 million in the mid-1990s trying to develop a plastic pallet, but it failed. It tried to make a standard pallet by using an adhesive or sonic welding the pieces, but at end of the day it didn’t work, Moore explains.

For his part, Moore then commissioned England’s Cookson Plastics to work on a pallet molded from HDPE and reinforced with long glass-fiber bonds, using technology invented for fiberoptic tubes. Reinforced with an I-beam, the plastic pallet worked, and Moore was able to get the cost level he needed. But there remained a weighty problem: the pallet was too heavy at 56 lb. OSHA wanted a pallet that weighs 50 lb or less. Wood pallets weigh 75 lb.

The OSHA recommendation almost became law during the Clinton administration. However, there weren’t many options then, and it was decided that a law couldn’t be enacted where the technology doesn’t exist to make the product.

After some additional work, Moore developed a 48-by-40-inch pallet that weighs 47 lb and racks to 2800 lb. It meets the standards of the Grocery Manufacturers Assn.

“Our first pallet, of which we ordered 6 million units from our mold-er, Schoeller Arca Systems, has a top deck thermoformed of twin sheet made from a different resin than the injection molded bottom deck,” says Moore. “The top deck thus provides 100% coverage for greater strength and durability.” Schoeller Arca Systems is a Dutch-based, globally operating processor of plastic packaging systems for materials handling.

Moore says the biggest innovation with iGPS’s pallets is they offer the world’s first RFID-tagged, all-plastic pallet pool. Two RFID tags are molded into two corners of the pallets, along with four barcode labels to accommodate customers that don’t have RFID technology as yet. The company announced in August that it has selected Ryder System Inc., a global company specializing in supply chain, warehousing, and transportation management solutions, as its supply chain logistics partner.

Moore concludes that the plastic pallet industry is on track to eliminate wood pallets, noting, “Plastic pallets have all of the advantages of wood, with none of the disadvantages.”

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