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Thursday, 21 June 2012

News Release Automatic Packer for plastic caps from APEX Automation & Robotics

The common practice for shipping aerosol caps is to drop them from an injection moulding machine into a carton. This can result in nesting and distortion of these caps which could eventually cause problems to the machines that assemble them to the aerosol cans. The Automatic Packer supplied by Apex Automation and Robotics packs these caps in cartons, layer by layer without nesting, at a production rate of more than 5000 caps/hr. This packing configuration also meant that up to 20% more caps could be packed in the carton, resulting in a substantial saving in shipping cost.

After the caps drop off the moulding machine, they are transferred on a slope conveyor to an unscrambler which discharges them onto a chain conveyor all facing the same direction. At the end of the conveyor one row is separated and pushed onto a stainless steel plate. Every second row is staggered and pushed onto the plate until a whole layer is formed.

The carton is formed and transferred on a conveyor to the packing station. A Unigripper vacuum head mounted to a 2-axis robotic arm picks up the whole layer and loads it inside the carton. Every second layer will have the caps staggered by half a diameter so that the caps don't nest. When the carton is complete it is pushed out on an accumulation conveyor and a new carton is presented to the packing station.

A user-friendly Touch Screen allows the operator to setup and run the machine as well as monitor the errors.

Apex Automation & Robotics is one of the leading suppliers of automation equipment for the plastic industry and their range of products also includes robotic systems for complex packing and palletising configurations.