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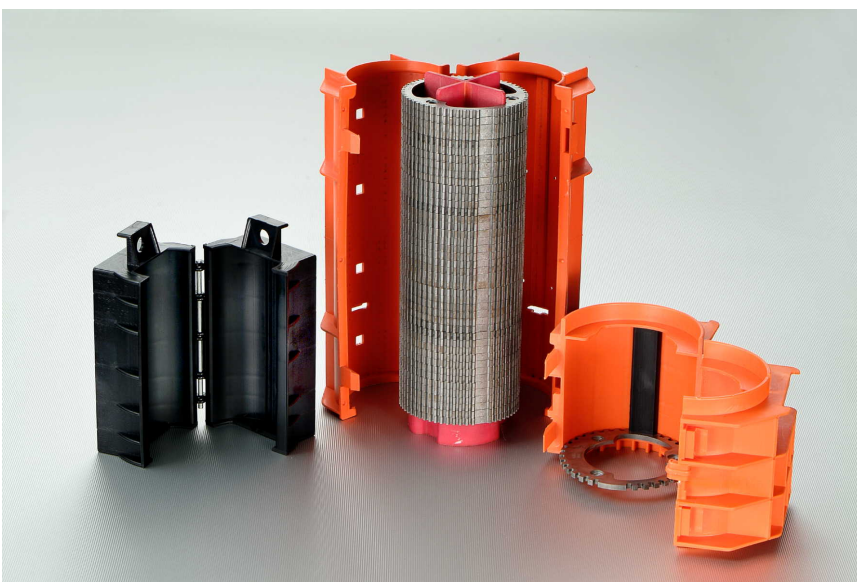
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## **CUSTOM DESIGNED INJECTION MOLDED RETURNABLE SHIPPING CONTAINERS FOR GEARS AND GEAR-LIKE PARTS PROVIDE PROTECTION AND FUNCTIONALITY**

*Injection molded plastic shipping containers are durable, dimensionally accurate and provide proper part orientation for enhancing the loading of parts in machine tools and assembly systems.*

One area of quality that plagues manufacturers of gears, sprockets and other types of gear-like parts are the nicks and scratches that are imparted on the finished parts when proper care and handling are not observed. As a solution, some manufactures are using custom- made injection molded plastic containers designed and produced by Molded Materials Inc. These containers not only provide excellent protection for the fine detail of the precision gear teeth, but also provide the capability to simultaneously orient a number of parts to enhance loading on machines or into manufacturing/assembly systems.

Molded Materials Inc., a leading designer and manufacturer of injection molded dunnage and trays, is working closely with many gear, sprocket, target wheel and similar types of parts manufacturers to develop these special cylindrical shipping containers. Mark Marra, Molded Materials' application engineer for these products, says, " In these types of shipping applications, we recommend the special gear container be used in combination with larger collapsible four-sided bulk returnable containers that use foam shipping media between the containers for additional containment. When hundreds of hours of labor and machining time have been spent to produce a gear, the last thing anyone wants is to scrap the part because of negligence or sloppy part handling."



*Molded Materials' injection molded cylindrical gear containers provide protection as well as orientation for loading 10 to 20 pieces on a machine or system.*

Marra adds, “Because we’ve designed and produced hundreds of these types of containers, our learning curve has leveled off and we’ve settled on a number of good production proven designs. Ergonomically, the containers should be designed for a maximum loaded weight of no more than 25-lbs. Typically nylon is the material of choice because of its durability characteristics. However, in some gear applications the gear teeth are very sharp and thermo plastic urethane inserts are applied to prevent part contamination from any shaving off of the container material. We use a wide range of fastening clips, clamps and different types of hinges for the cylindrical containers, depending on the application. Although containment is the primary concern, some users require the gears or parts to be oriented in a specific manner, so a stack of parts can be easily loaded by an operator over a mandrel or onto a fixture. When this is the case, we create a design that has simple orientation tabs or slots that insure proper part location.”

Molded Materials Inc. provides custom engineered plastic products for material handling, process manufacturing and assembly. Molded Materials markets to a variety of manufacturing industries with a focus on automotive, process equipment, automation equipment and transportation.