

Top Quality PET – Made in Germany

German technology perfect for packaging Asian goods using recycled PET

Limburg-based OHL Engineering GmbH is poised to play a major role helping countries – particularly in Asia – package their products in the face of growing demand. One of OHL's specialties is turnkey units for recycling polyethylene terephthalate or PET.

Known as vacuum tumble reactors, these units can be used in what is called a "batch process" to recycle PET bottles into – wait for it! – bottles. This sets OHL apart from other recycling technology providers. OHL Managing Director Stefan Behnke says, "We are the only company worldwide to offer PET recycling in a batch process." OHL Engineering's turnkey reactors have already been delivered to China, India, and Korea.

Frequently, when PET bottles are processed for reuse, they are often "down-cycled" into fibers to make fleece or floor coverings. One advantage of the OHL technology is that it allows PET bottles to be recycled into plastic PET containers of a quality suitable for food packaging or bottling. During the batch process, clean-washed fragments of old bottles, or flakes, are first melted. Then they are heated in portions called "batches" and tumbled for set periods of time in the vacuum reactor. The final product is a batch of recycled PET that is almost as good as new. By contrast, say industry specialists, the quality of recycled PET produced using other methods is difficult to predict. Changing the color and strength of the final product is also a long and painstaking process as well.

OHL's Managing Director Stefan Behnke recently told specialist media, "For the recyclers, the advantages are obvious. The process is so flexible that the recycler can tailor the batch individually to meet customer demands."

He added that the batch process enables the operator of a single vacuum batch processing unit to provide PET in shades and viscosities that meet the needs of 20 to 30 separate customers.

OHL is becoming increasingly active in Asia and says it is also setting its sights on markets in Southeast Asia, some Middle Eastern countries and South America. The small firm is also making a name for itself in Indonesia, India, China, and Thailand, where it has already sold recycling units to customers. About a year ago, OHL opened an office of its own in Beijing. OHL Engineering's managing director is clear on why recycling PET bottles is attractive in developing

In China, OHL Engineering is working in partnership with Beijing Incom Resources Recovery Company, which as of May 2009 was reportedly the only company in China approved to produce renewable plastic for food and drink packages. It is also listed as a China National Development and Reform Commission pilot enterprise for the recycling economy. Incom operates one of the world's largest plastics recycling processing plants. Over the next four years, OHL Engineering will work with its Chinese partner to build five bottle-to-bottle plants in five Chinese provinces by 2013. Each new plant will have an annual reprocessing capacity of 66 million pounds of food-grade resin.



markets, even though recycling schemes for separating and collecting recyclable material are still not nearly as sophisticated as they are in Germany. "PET is a relatively simple synthetic that can be decontaminated very well and is nearly completely recyclable. In addition, the recycling process is more economical than manufacturing new products, and there is more than a 50 percent savings on energy and water," he says, factors that make the technology economical and environmentally friendly.

The project indicates that the German firm has moved into PET recycling as it gains momentum in China, meaning that it is likely the demand for OHL recycling technology "made in Germany" has no way to go but up.