



WHAT'S NEW IN waste management

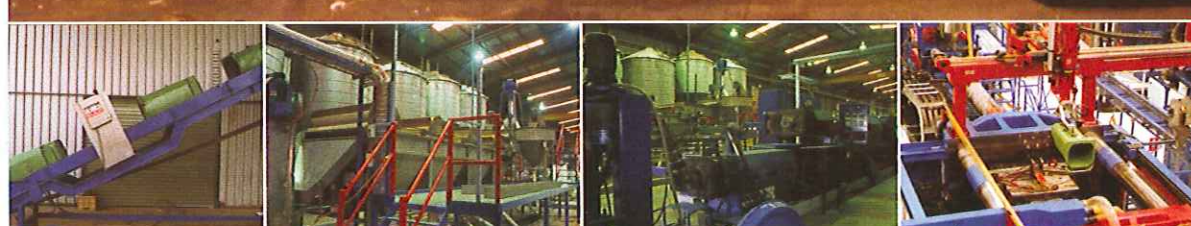
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Enviro-technology solutions for gaseous, liquid and solid waste handling

Inside: 2001 Water Odyssey



SULO CLOSING THE LOOP

MGB Recycling

Don't Dump It



Sulo has 'closed the loop' in the making of Mobile Garbage Bins (MGBs) through the addition of an operation dedicated to the recycling of plastic containers. The containers are recycled by turning them into new MGBs. While the technology involved is not new, the 'closed loop' approach is a first for the Australian market.

The company offers users the opportunity of purchasing MGBs for their varied waste needs. When the MGB has reached its use by date, which is optimally seven to ten years, Sulo will reprocess the plastic and turn the material into a new MGB.

MGBs serve the waste needs of domestic waste contracts, kerbside recycling and green waste services provided by many councils, as well as commercial and industrial uses such as wastes collected in hotels, restaurants, hospitals, document shredding and food processing.

Through this recycling operation, which is based in Carole Park, Brisbane, Sulo will be able to offer customers a complete service from the beginning to the end of the MGB life cycle so old bins will no longer end up in landfill. Instead of being unfriendly to the environment and taking up space in landfill, the material can be put to better use by reprocessing it into a new MGB.



Councils and waste contractors will no longer need to hold stockpiles of old MGBs which will reduce the need for storage facilities for long periods of time. Further, the company is willing to negotiate with customers to buy back old and damaged bins, thereby providing financial gain as well as saving on the cost of

storage, transportation and landfill.

The process of recovering materials from products that have been returned after reaching the end of their life can be broken into three basic processes.

The first process requires that the product be broken up into small useable chips that can be easily and quickly managed. This is achieved by putting the article into a granulator that consists of a series of knives that slice and chop the product into chips of approximately 3 to 5 mm square. The chips are then transported by means of a fan-forced, air-driven system through ducting, to the second stage of the process.

The second process is a two-stage washing method where the chips are swirled through a circular tank that has a flushing process to clean off most of the dirt, grime and other contaminants. The chips are then continuously fed into a second stage sedimentary bath. This allows all contaminants that are heavier than the polymer, which floats on water, to settle to the bottom of the tank. The result is a clean and relatively pure polymer that is ready for spin drying and storage for the next process.

The final process takes the dried chips and feeds them into a screw feed machine. This material is then heated to melting point and blended until a homogeneous mix is achieved. The material is then extruded through a die form to produce spaghetti like strands, which are then chopped into a uniform pellet size. These pellets are then cooled and bagged into storage containers. The finished product is then made available to the injection processors for inclusion into products.

There are real economic and environmental gains to be enjoyed by all stakeholders in the waste industry and community. Councils have requested the use of recycled plastics in the making of MGBs, which has been achieved in low ratios only by using reprocessed milk bottle containers from the recycling

stream. This process is difficult and costly because it uses large amounts of milk bottle regrind in the remanufacture of MGBs. This is because milk bottle material has a different set of moulding characteristics to the raw material used in the process. Reprocessed MGB material, however, has the same polymer profile and can be used in larger amounts. This means that virgin material does not need be used to the same extent, which saves on the use of natural resources.

The collection of old MGBs from the waste stream will also mean less waste to landfill via the establishment of a market for the recycled product. This material will be re-used in the manufacturing of an Australian-made MGB that meets the same standards as current products.

Sulo has commenced reprocessing bins at its facility, having collected material from council areas in Ipswich, the Gold Coast, Concord and Blacktown. Further, MGBs are being collected in Melbourne, Brisbane and Sydney for reprocessing in the near future via a portable grinding machine that is close to completion. This addition to the company's recycling services business will enable them to collect and regrind the old MGBs on-site for transport back to the facility for reprocessing.



Sulo has 'closed the loop' with the manufacture of the MGB through the establishment of this reprocessing facility.

Sulo MGB Australia Pty Ltd
PO Box 375
Gosford 2250
Information Feedback Number **H899**