

Industrial Maintenance & Plant Operation

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Compactor disposes of industrial woes

A more versatile unit helps meet today's environmental demands

Problem-solution case history, March 13, 1995

For INDUSTRIAL MAINTENANCE & PLANT OPERATION

CRUSHER HELPS PARKER HANNIFIN HANDLE INDUSTRIAL DISPOSAL SIMPLY AND EFFECTIVELY

The efficient disposal of industrial waste has become an increasingly important task for many businesses. The Hose Division of Parker Hannifin Corporation, a diversified, technology-based company headquartered in Cleveland, manufactures high and low pressure hose fittings used in industrial, material handling, and transportation applications. Its Wickliffe, Ohio plant generates mixed trash, from metal drums and wooden skids, to other nonrecycled debris.

"We're very conscious of the environment and anything involving EPA," explains Don Carpinello, the Division's Maintenance and Tool Room Supervisor responsible for tooling and the maintenance of all equipment. As examples of this compliance, his staff washes down all drums before disposal and carefully separates steel turnings for recycling.

Previously, removal of mixed trash was accomplished by a 30-year old, 4-cubic yard compactor supplemented by a 40-yard open-top container. It primarily compacted cardboard while skids, drums, and other hard-to-crush items were disposed of separately in the open-top container located in an enclosed shelter just outside the plant. Carts placed throughout the plant collected trash for movement to the disposal area where pulls were made twice per week, with a separate pull for bulky items in the open-top container.

"The mix probably contained other miscellaneous items," explains Carpinello.

"We knew the unit was not performing the job we needed." It had only one control, no variations, and no pre-crushing capability. A more versatile system was essential to cover today's and especially future requirements.

Parker Hannifin's New Waste Disposal System

"We literally went through the phone book, interviewed several distributors, and picked one willing to think through and recommend a system that would be right for us," explains Carpinello. He selected Stu Klein, Compaction Specialists, in Cleveland. After becoming familiar with the application, Klein recommended the CRUSHER™, an innovative pre-crushing compactor recently introduced to the industrial market. Its capabilities matched Parker Hannifin requirements. The manufacturer, the Glosser Company of McKeesport, Penn., was willing to customize several additional features to meet the Hose Division's specifications. Based on Parker Hannifin's application, Klein recommended purchase of the 4-yard size CRUSHER to replace the compactor and container now in operation.

Since the CRUSHER has been in service, pulls and dumping were reduced to once a week. "We now have one device for everything, and that's a big improvement," says Carpinello. The new system processes a full, or partial, mixed stream and disposes of this trash more efficiently than before. And cost

savings should pay for the CRUSHER in about one year. **Disposal rates have dropped on three counts: fewer labor hours for initial handling of refuse, longer intervals between pulls (twice a week hauls cut in half), and elimination of the open-top container.**

Simplified Operation and Maintenance

The computer-controlled system is easy to use, explains Carpinello, "You push two buttons and walk away." He thinks anybody can use the CRUSHER, which requires no special skills or experience beyond basic instruction. But, good training is a vital factor in operating all plant equipment, so workers should be familiar with the special features. As an example, he points to the selector switch which can be set to the size of the load and the number of pre-crushing cycles required. Once these choices are made, everything else is performed automatically.

The heavy duty 4-yard system, which can exert up to 113,000 pounds of crushing force, has a horizontal ram that precrushes and compacts in a single motion. **Controlled by a logic motion computer board, the ram cycles forward, pre-crushing refuse in the upper chamber. It then cycles backward to the fully retracted position, moving precrushed refuse to the lower chamber, and compacts the refuse into a receiving container.**

In addition to the basic unit, Glosser designed an automatic dumping device to work in conjunction with the CRUSHER. Wheeled carts feed into the dumper which, on command, mechanically swings up and empties its load into the pre-crushing unit. "We've also built from the outside," explains Stu Klein. This enclosure prevents debris from blowing around both inside and outside the plant and minimizes drafts. "Housekeeping is very important to us," agrees Carpinello. "Even though we are in the rubbish handling business, we want to make the housing as attractive as possible," says Klein. He and the Glosser Company believe that equipment should complement the building's appearance.

CRUSHER Capabilities

The CRUSHER represents a new class of gateless pre-crushing compactors. It reduces and compacts odd-sized and mixed waste streams, ranging from huge crates to large and small appliances. In contrast, previous generations of compactors provided little crushing capability for industrial users like Parker Hannifin. **The CRUSHER's innovative design minimized maintenance. Its computer controls, based on proprietary technology, simplify the crushing and compaction processes.**

The CRUSHER will crush and compact variable loads of refuse, from small electronic parts to oversized barrels, pallets, stoves, refrigerators, washers, and dryers. It can precrush a mixed load at up to four times the capacity of a comparably-sized standard compactor. The machine, available in 3-, 4-, and 6-yard capacities, has a single set of hydraulic cylinders that operates both pre-crushing and compacting rams.

Ray Lackner, executive vice president of the Glosser Company and CRUSHER designer, reports that the system is less complicated to run and easier to maintain than the older and more complicated guillotine-type compactor. A single on-off switch initiates the cycle. The computer board measures electric current and controls both the ram cycles and the travel limit.

The CRUSHER is sold by distributors throughout the U.S. and is produced under license in Europe by Boughton International, England. **Fortune 500 customers now using this innovative disposal system, in addition to Parker Hannifin, include Reliance Electric Company, SMC, Frito-Lay, the Ford Motor Company, and Proctor Silex.**

The Glosser Company

Glosser is a division of M. Glosser & Sons, a family-owned, private company that began its basic steel business almost 100 years ago. Glosser developed the CRUSHER as a high-growth complement to its Tygart Steel Division and industrial container manufacturing plant. These products are made in Donora, Penn. For more information about CRUSHER distributors in your area, contact the Glosser Company, 1 Douglas Street, McKeesport, Penn., 15134.

Phone: (800) 245-3880 or (412) 461-8100.



3 Yard Crusher



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