## NG STEEL

of what was previously crated. With less home and prompt scrap available, steel makers need a new, steady supply of purchased steel scrap
Enter steel cans.
Actually, re-enter steel cans
Once collected and recycled as a valuable resource

American steelmakers are already prepared to recycle each and every steel can cold in America. Used steel cans are the new raw materiel "mine" for steel production. Because steel food and beverage cans are made from the highest quality steel available, they are an excellent source of scrap for new steel production.
A new commitment by the US and Canadian steel industries to steel can recycling is already beginning to boost the level of steel can recycling. The industries' commitment to recycling, evidenced in part by the creation of the Steel Can Recycling Institute (SCRI), complements

our nation's new recycling ethic, infusing a new dynamism into steel can recycling.

Steel can recycling conserves natural resources, feeds new steel production, and provides an environmentally sound waste management alternative to American communities. There are a lot of beautiful reasons for recycling steel cans.

## The Steel Can Recycling Cycle

Steel cans should be part of every community's recycling program because they are common household items that are easy to collect, inexpensive to process, and have stable, well-established markets.
Many products on the market today claim to be "recyclable." But are they being recycled?
Steel cans are being recycled today
The technology for recycling steel has existed for decades, and has been used as an integral element in the steelmaking process. In fact, new steel production tech nologies actually require more steel to be recycled than ever before.
Are the economic benefits for a community sufficient to allow large-scale recycling of a particular material?
Steel cans are increasingly being valued for recycling in communities throughout the nation. Revenue from the sale
of recycled steel cans helps underwrite the overall cost of recycling operations. At the same time, waste disposal costs fro landfilling can also be saved by recycling steel cans. After a material is recycled, can the new product then be recycled?
cycled
Steel is recycled over and over again. The can that is made today already contains 25 percent recycled steel. And lomorrow, that can may in turn become a new product that contains 100 percent recycled steel. Because all steel products can be recycled, steel can
ucts
are part of a continuous life cycle
For steel cans, the results are in Steel can recycling works.
Steel cans are being recycled. By late 1988, when the Steel Can Recycling Institute was formed, 15 percent of all steel cans produced in the United States were being recycled. The industry's goal of attaining a 66 percent recycling rate for steel cans by 1995 is readily achievable. Steel can recycling is easy. Because steel is magnetically attracted, the steel can is the easiest package of all to collect, separate, and recycle.
A simple experiment in your own kitchen can demonstrate steel's unique property that allows for easy collection and separation in the waste stream. Take a refrigerator magnet and hold it to the side of a can. If the magnet sticks to the container, you are holding a steel can. If the magnet doesn't adhere, you have a non-ferrous can.

## Steel Can Collection

There are three easy ways for communities to institute steel can recycling: curbside collection, resource recovery plants, and drop-off or buyback centers. Each of the collection systems has been tested-and is currently in usein communities throughout the country.

## Curbside Collection

The easiest way for individual households to participate in steel can recycling is through a curbside collection program. In a commingled, multi-material curbside program, families simply separate recyclables from their household trash.
Commingled curbside collection programs require little effort from house-hold members, resulting in high participation rates-and more recyclable goods.
The commingled recyclable goods must be sorted out by material type at a processing facility: metal cans, glass jars and bottles, plastic bottles, and newspapers. And that's where steel's magnetic property is put to good use. Magnetic separation is almost always used in the intermediate processing facilities that separate the recyclables. In fact, steel cans are usually the first material pulled out of the commingled recyclables because, unlike other materials, steel does not require hand sorting.
Some communities go one step further in their curbside collection programs, and require that each type of recyclable material is placed in its own separate bin. In this type of program, all metal containers, including both aluminum and steel, are usually combined into a single bin. Again, magnetic attraction allows the steel and aluminum to be separated easily at a processing facility.

## Resource Recovery Plants

No household trash separation is required when all of a community's trash is collected by garbage trucks and taken to a resource recovery plant. There, steel cans and other post-consumer steel products can be magnetically sepa-
rated from the solid waste for recycling. The remaining trash is then processed to be burned to create energy and to reduce its volume for landfilling.
Large volumes of refuse must be processed making resource recovery plants much more capital intensive than curbside collection programs But, of course, communities that utilize resource recovery facilities have 100 percent participation rates.

Drop-Off and Buyback Centres Voluntary drop-off and buyback centers are usually found in communities where curbside programs have not yet been instituted or are impractical because of small populations. These centres are beginning to broaden their acceptance of recyclable products, and increasingly are accepting steel food and beverage cans.

No matter what kind of program a community uses, steel's magnetic attraction makes it convenient and inexpensive to collect steel cans for recycling.

## To Market, To Market

Once steel cans have been collected, a community or collection agency can sell them to any one of a variety of potential customers or markets. The cans may be sold to detinning companies, steel mills, iron and steel foundries, or ferrous scrap processors
Detinning companies remove the layer of tin from tinned steel products, such as food and beverage cans. The tin, a high-value commodity, is collected and sold. Detinning companies sell the resulting detinned steel directly to steel mills and foundries.
Of the more than 120 US steel mills, the ultimate end market for most steel cans, many purchase steel cans directly from municipal collectors. Steel-making techniques accommodate a percentage of tin in the steel scrap mix, so the tinned steel cans can be used directly in the making of new steel.
Iron and steel foundries fabricate cast and molded parts from steel for industrial use. These foundries typically use up to 30 or 40 percent purchased scrap in making new steel.
More than 1,500 ferrous scrap dealers are the intermediaries of the steel recycling industry, collecting large-sized steel items such as building materials, old cars, refrigerators, and other appliances, for processing and sale to steel mills or detinners. Many now accept steel cans for processing.

## Yesterday's Can is Today's Car...Today's Car

 is Tomorrow's CanSteel and bimetal cans are carefully measured before being remelted and recycled into new steel. A steelmaker must consider tin content, and aluminum content from bimetal can tops. Aluminum actually enhances the steelmaking process; in fact, aluminum is quite commonly used. Other "foreign" matter, such as plastic aerosol tops and paper food can labels-in quantities that come from community collection programs-are not a problem in steel furnaces.
After carefully considering the returned steel cans, a steelmaker determines the amounts of various types of scrap and "virgin" materials that will combine to make new steel.
The resulting new steel is then used to make new products-including steel cans.
The steel can recycling cycle continues.

