



## BUY RECYCLED WITH RECYCLABLE STEEL

### **When you buy steel, you buy recycled**

Steel is a unique material because it always contains recycled steel. Each year, millions of tons of pre- and post-consumer steel products, including used steel cans, appliances, automobiles and construction materials, are recycled by steel mills into every ton of new steel produced.

In fact, with the exception of the earliest steelmaking methods, recycling has always been an integral part of the steelmaking process. What's more, all new steel products made from recycled steel can be recycled again at the end of their useful lives. Used steel cans are recycled into part of a guard rail, which may one day be recycled into an appliance. And an infrastructure of ferrous scrap processors exists to prepare all types of steel products for recycling. Processors prepare and ship steel scrap to steel mills and foundries for remelting into new steel.



### **Steelmaking is an inherent recycling process**

Recycling is an integral part of the steelmaking process because the use of steel scrap lowers the total cost of producing new steel. Steel mills use one of two types of furnaces to make new steel. Both furnaces recycle old steel products into new steel, but each is used to create different products for varied applications.

The first, the basic oxygen furnace, uses a minimum of 25 percent steel scrap to make new steel. This furnace produces the steel used in flat-rolled steel products, like cans, appliances and automobiles. The other type of steelmaking furnace, the electric arc furnace, melts virtually 100 percent steel scrap to make new steel. This steel is used primarily to make products that are long shapes, like steel plate, rebar and structural beams. Iron foundries also melt steel scrap to make new iron products, which contain about 75 percent scrap. These cast products include engine blocks and machinery parts.

### **Stick with steel**

Many states have instituted buy recycled mandates that require purchasing agents to buy products with recycled content when possible. As purchasing agents look for products with recycled content, they should recognize the recycled content and recyclability of steel. Bridges, guard rails, utility poles, fire hydrants, residential and commercial construction materials, appliances, cars, trucks, back hoes, desks, file cabinets and cans are some of the many steel products that contain recycled steel and, just as importantly, are recyclable again at the end of their useful lives.

When purchasing agents and consumers buy products made with recycled materials, they complete the recycling loop and help develop and maintain markets for recyclables. An ordinary magnet, which sticks to steel, can help determine if a product is made from recycled, recyclable steel.

### **Environmental benefits of steel recycling**

Recycling steel saves energy and natural resources. In a year, the steel industry saves the equivalent energy to power about 18 million households for a year. When one ton of steel is recycled, 2500 pounds of iron ore, 1400 pounds of coal and 120 pounds of limestone are conserved. By making recycling integral to steelmaking, the steel industry leads the buy recycled effort. Each year, more than 62% of the steel the domestic industry produces is recycled.