



LIME AND DOLOMITE FOR THE STEEL INDUSTRY



Lime and steel – in the same process



SMA Mineral is one of the largest producers of lime products in the Nordic countries. We have extensive experience of lime and handling lime. Applying lime, a product of nature, is the most natural method of resetting the balance in nature.

The path lime travels to its different areas of use can be viewed as an eternal ecological process, where very little of the raw material is wasted.

And the areas of use are many: from gardens, forestry, agriculture, and lakes to power plants, flue gas cleaning, water purification, pulp industry, and the steel industry.

Lime is found in all geological formations, all over the world. It plays a versatile and practical role. SMA Mineral masters the many possibilities for using lime, as well as the technology, processes, and areas of use in which it plays a crucial role.

We have extensive experience of the industry. Our headquarters is located in Persberg, Värmland's largest mining region with a tradition stretching hundreds of years back in time.

SMA Mineral specializes in lime and dolomite products for the steel industry. Modern steel production requires superior quality flux for the best yield and safety in the process.

Our lime plants in Boda, Rättvik, Oxelösund, Mo i Rana, and Röyttä produce burnt lime of high quality for various processes in steel production.

The plants in Rättvik and Mo i Rana also burn high quality dolomite. Lime is a natural and important element in nature. We understand its life cycle and its areas of use – whether dealing with limestone, burnt lime, slaked lime or dolomite.

Economical flux

Steel production requires vast quantities of lime to form slag in order to prevent the steel from being oxidized. The melted slag also removes the impurities from the steel that are harmful to the process and products.

Dolomite is also needed to protect the refractory lining of the steel furnace or converter, increasing the life span – a crucial parameter from a financial viewpoint.

SMA Mineral can supply both types of high quality alkaline flux, for every type of steel manu-

facturer, including carbon steel producers and those that manufacture stainless steel.

Depending on the customer's handling system, both types of flux can be delivered in many ways; as lumps in an open truck, or as pebbles and powder in a pressurized tank truck. The flux can also be delivered in Big Bags.

Both types of products are also available pre-mixed, if desired.

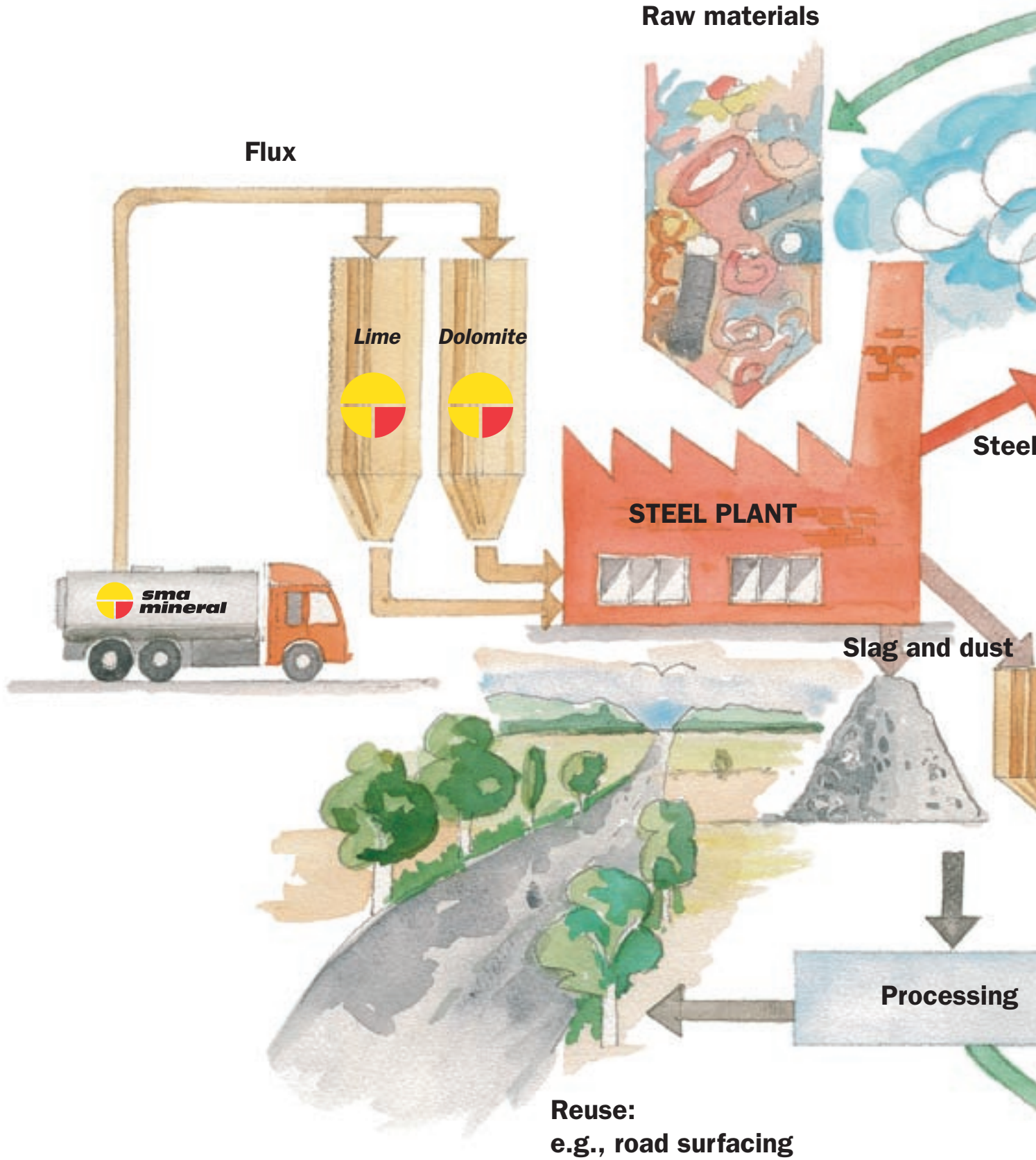
Lime burnt in either a shaft kiln or rotary kiln could be used for LB furnace, converter, and ladle, as long as it is possible to meet the customer's requirements.

For example, when manufacturing stainless steel, most customers want lime with an extremely low residual C content, while other customers need a somewhat higher content.

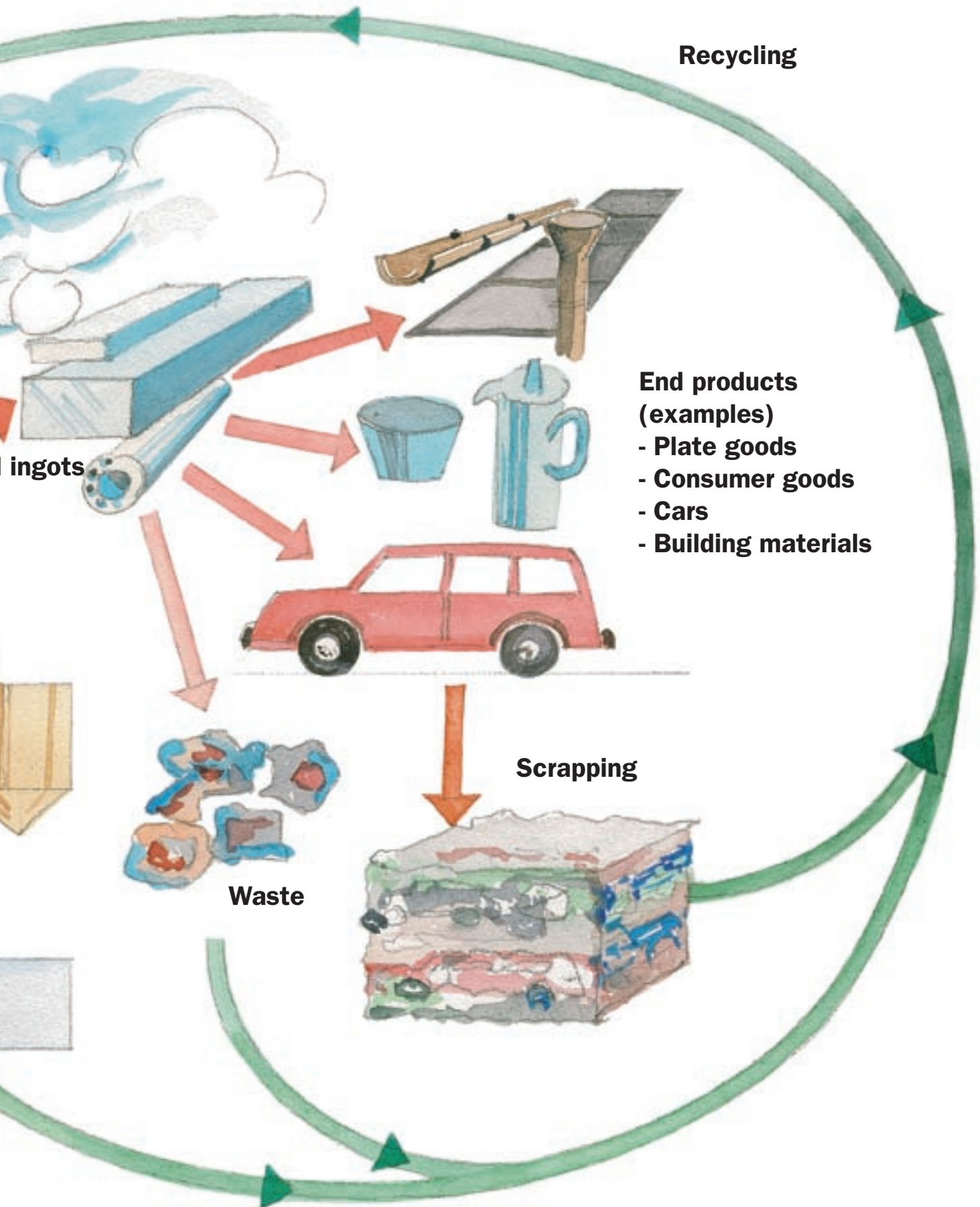
A general requirement throughout the process chain is that the total yield of flux should be optimal.



Life Cycle



e of Steel



Economy and security

SMA Mineral offers a number of lime and dolomite products aimed at the steel industry. The different requests and requirements of our customers determine the optimal product for delivery. Customers can always rest assured that they are receiving a quality product for their steel products.

Below are the different types of lime and dolomite that we offer to the steel industry:

Burnt dolomite – import

Burnt dolomite for the steel industry. Via terminal. Rotary kiln burnt.

Burnt dolomite – Mo i Rana

Burnt dolomite for the steel industry. Shaft kiln burnt.



Burnt lime – Boda, Oxelösund, Mo i Rana, Röyttä

Normal burnt, high purity reactive lime. Shaft kiln burnt.

SMA Kaldo – Rättvik

Premixed burnt lime/burnt dolomite for delivery to the steel industry. Rotary kiln burnt.

Burnt lime – Rättvik

Normal burnt, hard burnt, and overburnt lime for the steel industry. Extremely low C content in the latter product. Rotary kiln burnt.

Burnt dolomite – Rättvik

Burnt dolomite for the steel industry. Rotary kiln burnt.

The entire chain

The combination of large production and storage capacity together with our own Swedish transport organization (in other countries we use local transport organizations) serve as the basis for reliable deliveries to our customers.

But it takes more than just good products and efficient distribution. The way we handle lime and our methods for using lime products are also vital for meeting our customers' needs and demands.

SMA Mineral has its own process and technology department that tailors technical solutions for each company. This means that we can design material handling systems including silo construction projects.

SMA Mineral's product portfolio includes a number of lime products suitable for internal neutralization of pickling acid and rinse water. No matter which product is used, SMA Mineral can meet customer demand for high-quality products.

The most common products for this type of application are burnt lime and slaked lime, as well as crushed and ground limestone products.

Internal neutralization



Crushed and ground limestone products

– pure limestone products from a sedimentary and single-crystalline origin are produced in most fractions, suitable for pH-adjustment of water.

Burnt lime

– pure normal burnt lime with high reactivity, with a very low proportion of inert material; the burnt lime is produced in several fractions in Boda, Oxelösund, Mo i Rana, and Røyttä.

Slaked lime

– slaked lime is used when great demand is placed on the ability to dissolve quickly; the slaked lime is produced in Rättvik and Røyttä and has a high level of purity.





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