

# MAGOX<sup>®</sup> Magnesium Oxide

Better, more reactive... precision calcining makes the difference.

**Q.** What makes MAGOX better?

**A.** MAGOX is a cost effective domestically mined MgO. Our own high purity magnesite ore is calcined under exacting conditions in a computerized Herreshoff multiple-hearth furnace yielding high quality, consistently reactive magnesium oxide. Premier is the only MgO producer in North America using this process technology.

**Q.** What is reactivity and why is it important?

**A.** "Reactivity" is a measure of how quickly MgO reacts with acid. Lower reactivity means more MgO passes through the system without doing work. This increases both material demand and cost.

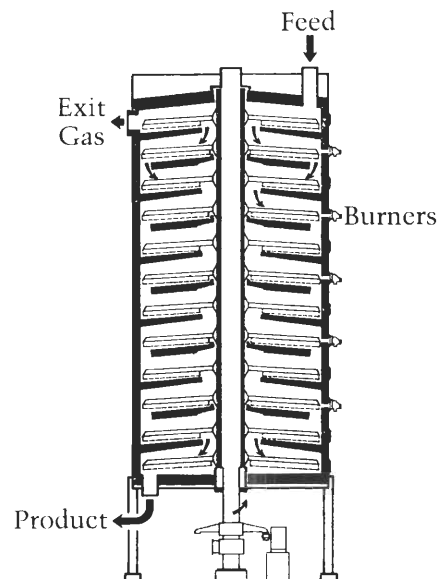
**Q.** Why is MAGOX more reactive?

**A.** MgO is usually made in a rotary kiln as shown in the diagram to the right. It has a single burner and is used to produce "hard burned" and refractory grade MgO. Material temperature is difficult to control resulting in inconsistencies that reduce reactivity, costing the end user more.

**Q.** Isn't magnesium oxide content the most important quality of an MgO product?

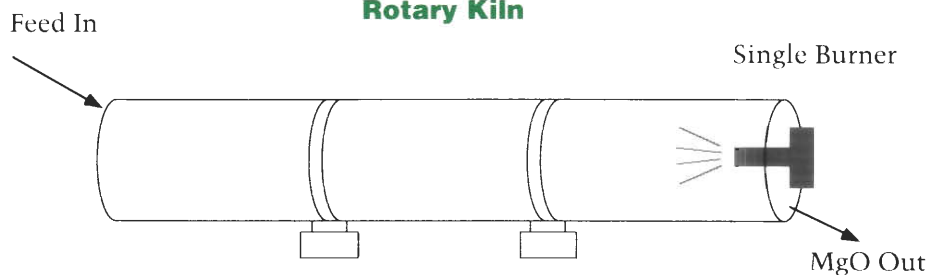
**A.** MgO content is important but, if the material was over heated during calcining, higher MgO can actually lower performance. Why pay more for product that doesn't react? Purchase MAGOX and get what you're paying for.

## Herreshoff Furnace



**MAGOX is made in a Herreshoff furnace which is diagramed at right. Material is moved over a series of hearths from top to bottom at a uniform depth. Multiple burners are computer controlled to assure uniform furnace temperatures near 1700°F. This ideal temperature and uniform depth of material assure the uniform reactivity of MAGOX.**

## Rotary Kiln



**Temperatures reach as high as 3,000°F in this type of kiln resulting in a "hard burned" MgO that is very slowly soluble. Also, the temperature variation in this type of kiln is greater resulting in an inconsistent product.**