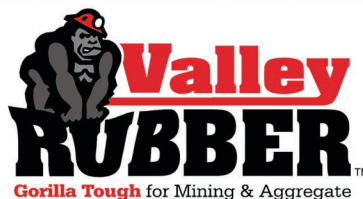
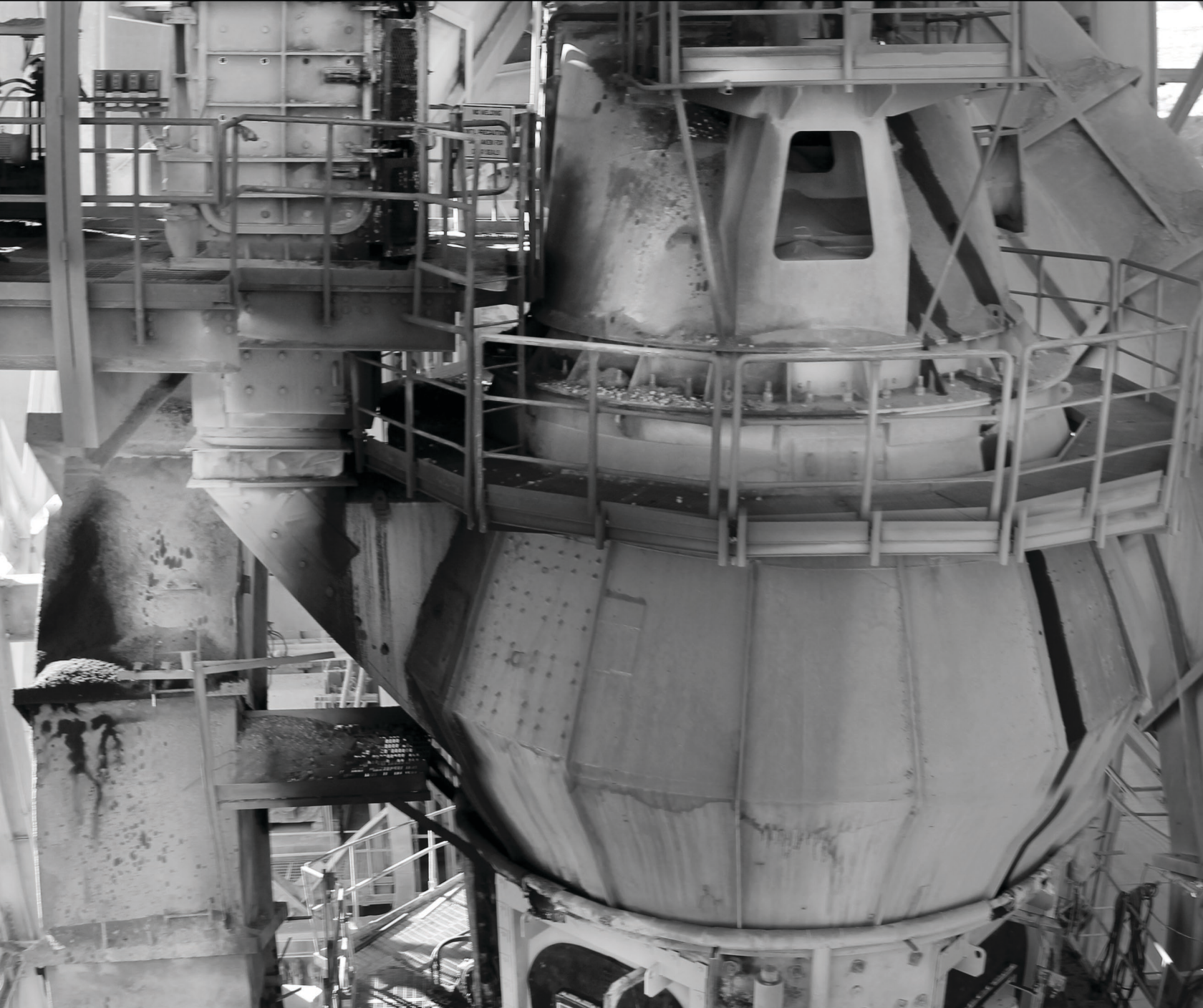
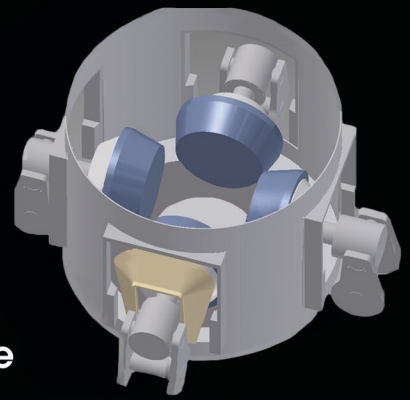


Vertical Roller Mill **Solutions**

Energy Efficient • Cost Effective • Reduced Maintenance



Gorilla Tough for Mining & Aggregate

ValleyRubber.Solutions | 1.256.784.5231

TripleGate Feeders

The Problem:

- Constant maintenance feeding 375 TPH to a 2,400 HP
- Vertical Roller Mill (VRM)
- Unscheduled maintenance every week
- Lifecycles on wear-parts only 6-12 weeks, often 30 days
- Doors difficult to open, and a safety hazard
- Air seal between compartments is poor

Solution: TripleGate Feeders

- Wear-parts exceed 5 million tons (3 year) lifecycles
- Hydraulic cylinders operate 16,000-24,000 hours
- Bellcranks, bearings, rod-ends exceed 12 million cycles
- Air-lock is improved and reliable
- Door (~3 tons) opened safely by one person in less than 2 minutes
- Door seals are air-tight with inflatable rubber seals



Our engineering team and support staff is larger and more capable than ever, and you now have a direct association with the manufacturer of the components within the solution. Combining the solid manufacturing capabilities of Valley Rubber with our proven Engineered Solutions provides you with a start-to-finish partner for projects that include field reconnaissance, engineering and manufacturing.



Front of 42,000 lb.
TripleGate Feed



Gravity Actuated Door
Safety Pin



Door opened by one person,
under two minutes

Ceramic ArmorRing & Side Liners



Vertical Roller Mills present unique and challenging wear problems. Ceramic ArmorRing Liners and Side Wall Liners can run for years.



Cast or Steel Liners

Cast or Steel Liners

- Short life in the 190mph erosion conditions, plus impact loads
- Undercutting exposes the mill body to heavy maintenance
- Iron is heavy, difficult to man-handle, and expensive

Ceramic ArmorRing Liners

- Built with 2" thick high-tech ceramic and molded into high-temperature rubber
- Liner section is custom-fitted and creates a near seamless layer of protection around the outside of the air vanes
- Cost-effective and light weight (60lbs)
- Resists wind erosion
- Absorbs high velocity impact
- Prevents mill shell from being damaged
- Reduces maintenance time
- Life cycles 7-12 times greater than steel
- 3-6 times longer than cast iron liners
- Survives temperatures in upset conditions to 700° F
- Over 10 years of field development



Ceramic ArmorRing Liners



Side Liners

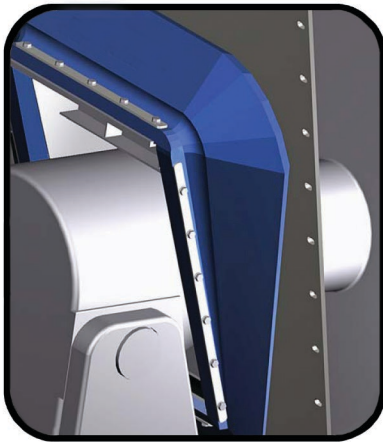
We can achieve superior cost effective performance with ceramic block and rubber technology. Our unique Hi-temp rubber compounds do not break down over time in these applications, but rather can withstand normal operating temperatures and bond strength to the ceramic for excellent performance.

AirSeals

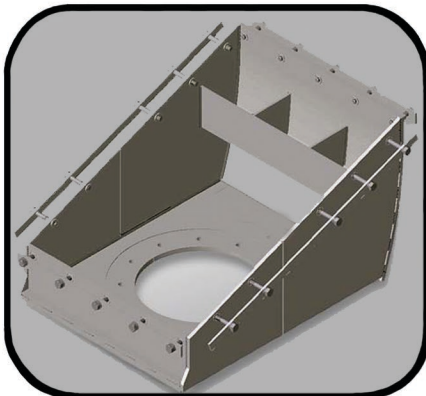
AirSeals are designed to flex in two directions, following the movement of the WindBox under normal mill operation. They are designed to work with our reinforced WindBoxes for maximum wear-life.



AirSeal with WindBox



AirSeal Model



WindBox CAD Representation

Benefits

- Reduced power consumption
- Reduced carbon footprint
- Stabilized operating temperatures
- Reduced maintenance
- Longer wear-life
- Improved uptime
- Positive ROI

Specifications

- Full face, WindBox encompassing design
- Flexible 2" thick heat resistant rubber
- Long one-year lifecycle
- Adapts to the full operating range of the journal positioning, including full retreat of the journals without damaging the seals
- Bolt-on design without tedious field-fit components; parting line is bonded together on field installation
- WindBoxes are custom designed to fully accommodate all the features of the existing mill geometry
- Underside fully sealed with complementary WindBox and door geometry
- Design allows for discharge of pinched materials behind the seal in the event of upset conditions

Improved Design

