



Mining – an industry faced with constant abrasion, corrosion, and erosion issues. The result: valves decimated on a weekly basis. *Business efficiency demands valves that can outlast the rugged conditions.* Cornerstone Valve has solutions for your most extreme mining challenges:

EXTREME *media*

1. Durability

Tired of seeing piles of discarded valves? Cornerstone's trunnion design offers a durable solution. Thru bores that exactly match HDPE liners in adjacent piping eliminate turbulence that causes damage along a valve's flow path – extending longevity.

2. Design

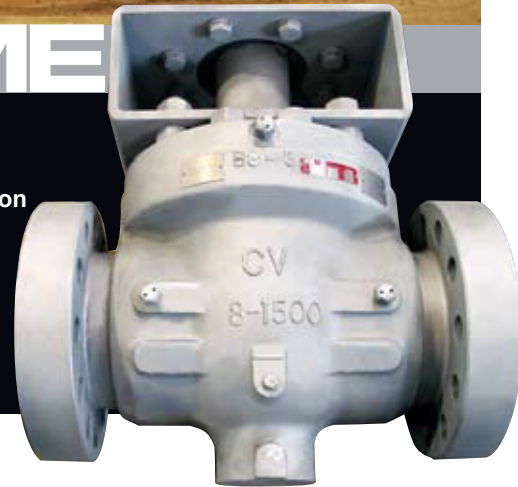
Cornerstone's trunnion mounted ball designs always rotate within their own geometry on a fixed ball-stem axis. Our live-loaded seats require no lateral ball displacement. Upstream sealing seats allow valve ball/body cavities to be isolated from the particulates in ore slurries – so continuous cavity packing does not occur.

Live loaded scraper seats, smooth full bore flow passages, and careful material selections allow Cornerstone valves to operate with minimal flow disruption.

3. Reliability

Transporting slurries, pressure letdown station isolation, dewatering, pneumatic transport, and autoclave recovery processes for selected alloys present unique valving challenges. Since downtime costs far exceed differential "cost savings" realized by "buying cheap," buy quality. Buy Cornerstone!

Cornerstone valves used in an iron ore processing facility have had a service life 20 times those of previous valves. They continue to work ... day in and day out.



Cornerstone Products for Mining

- **Top Entry Ball Valves**
- **End Entry Ball Valves**
- **Split Body Ball Valves**

CASE STUDY

Valves at an iron ore processing facility in the northern USA were being replaced weekly! Cornerstone was approached to assist in producing longer lasting valves to control the levels in iron ore slurry tanks.

Cornerstone's careful selection of wear materials and our solids-proof trunnion mounted design extended the service life of these valves twenty times!





SEVERE SERVICE ENGINEERING

INDUSTRIES SERVED:

- Oil & Gas Production**
- Oil & Gas Topside**
- Oil & Gas Subsea**
- Oil & Gas Cryogenic**
- Power Generation**
- Refining**
- Chemical & Petrochemical**
- Pulp & Paper**
- Mining**
- Aerospace**
- Maritime**

Severe industry conditions can lead to extreme consequences in the blink of an eye. Harsh industry environments can create plant downtime and increase risks to employee safety. To prevent such disasters, major end users, EPCs, and even other experts around the world turn to Cornerstone Valve.

Cornerstone's focus on uniquely designed valves for those "few in a lifetime" conditions has established our NICHE:

1. When the demand is non-standard, or contains some hybrid specifications, the stock valves cannot be pulled
2. Short lead times are still needed
3. Challenging metallurgies are required
4. Rigorous testing and 30+ years of proven service in application are needed
5. Project Controls still has a deadline, and so is created the "perfect storm"...

EXTREME

CORNERSTONE SERVICE:

1. Repair service:

- **In-house repair – Call for a Return Material Authorization (RMA) form with instructions for shipping/authorization. Or visit our website at cornerstonevalve.com to quickly download your form.**
- **On-site repair – our trained and certified field service personnel are ready and available to be transported to your site – onshore or off.**

2. Training:

Cornerstone personnel are available to train your staff in the operation and maintenance of valve products.

CORNERSTONE HAS SOLUTIONS FOR THE FOLLOWING APPLICATION AREAS:

- Slurry valves (resistance to abrasion & corrosion)
- Lock hopper valves
- Level control valves
- Letdown orifice isolation valves
- Pipeline transport valves
- Dewatering systems
- High pressure water pumping & control systems
- Autoclave vent isolation and shutdown
- Ore transport systems

