

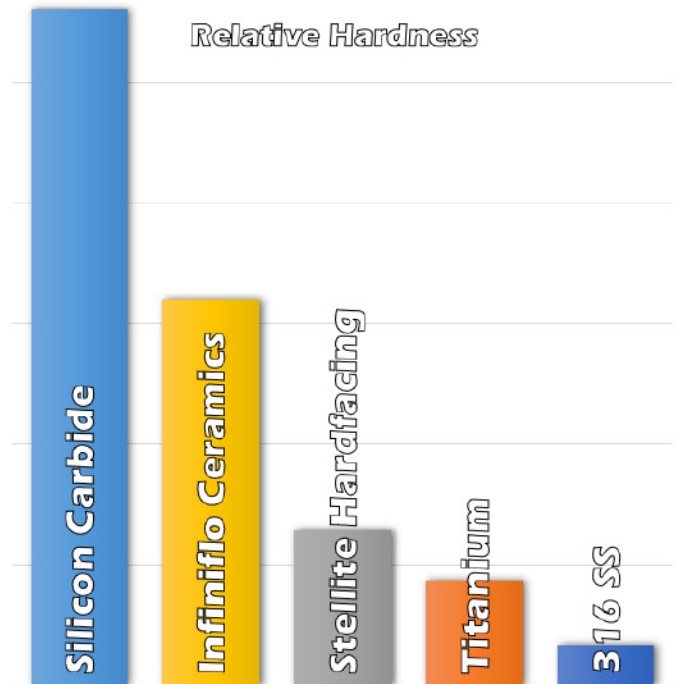


# Why Ceramic Valves?

- Ceramic materials are 6-8 times harder than stainless steels.
- The thickness of FLOTITE's ceramic material is often measured in inches, typically 1/4" and thicker. Most hard coatings are measured in microns. For example, Hard Chrome coatings are typically less than one-thousandth (0.001") of an inch thick.
- Extreme hardness and high temperature capabilities give ceramics exceptional resistance to cavitation, even continuous, aggressive cavitation does not affect the material.
- With special ball and seat processing, bubble-tight shut-off can be achieved.

## MATERIALS

- Partially Stabilized Zirconia (PSZ)
- Tetragonal Zirconia Polycrystal (TZP)
- Zirconia Toughened Alumina (ZTA)
- Tungsten Carbide Coatings and Solid Structure (WC)



## About Us

The company was founded to serve the process industry with special valves it had never seen before. Employing the brightest engineers and machinists that are able to combine metal and ceramics effectively, we are able to manufacture valves to API, ANSI, CE and ISO 9001 standards. We have committed ourselves to R&D and engineering expertise in the ceramic valve industry, utilizing the latest CAD/CAM software and manufacturing methods. Our extensive product offering means that FLOTITE is the world leader in ceramic valve technology. When you have an opportunity to use one of our valves in your severe plant application, you'll understand why we are the best at producing "Ceramic Valves – For the Toughest Process Applications."

**Actuator failure. Severely worn steel, ceramic untouched.**





## CRD

### Ceramic Rotating Disc Valve

- Self cleaning
- Isolation of dry media
- Aluminum manufacture
- Fly Ash
- Hopper Bottom valve



## CBF

### Ceramic Butterfly Valve

- Narrow take out
- Isolation of slurries



## CPT

### Ceramic Pneumatic Transport Valve

- Allows space for particles
- Isolation of dry media
- Aluminum manufacture
- Fly Ash

# Principles of Ceramic Valve Design



1.

The durability of the valve seat is crucial to the integrity of the entire valve.





## CSB

### Ceramic Segmented Ball Valve

Allows space for particles  
Isolation of dry media



## CBV

### Ceramic Ball Valve

Aggressive wear and corrosion  
Isolation and Control of:  
Slurries  
Light dry particulate



2.

Minimize possible leak points by minimizing the size of irregular valve packings.



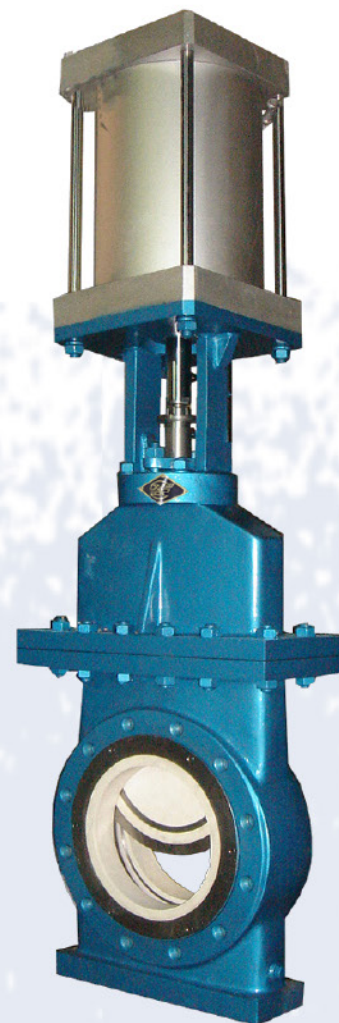
3.

Retain the media in the pipeline system.

## CSK

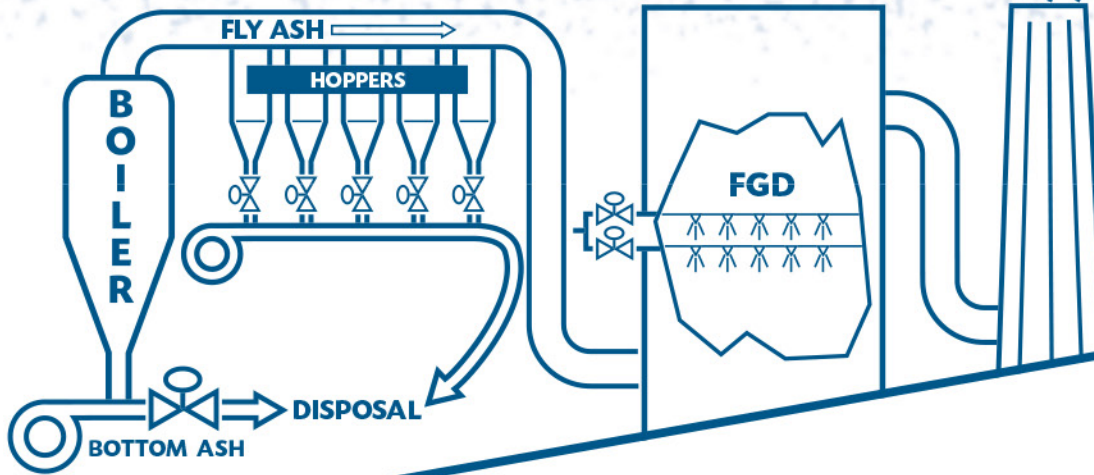
### Ceramic Slurry Knife Gate

Self cleaning  
Isolation of slurries  
Bottom ash  
FGD media  
Mining tailings

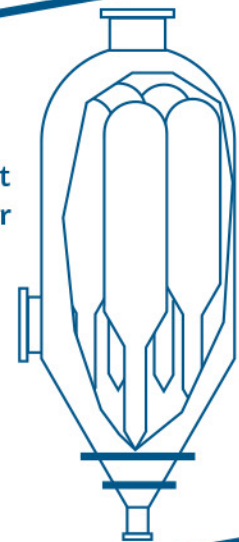


# Typical Applications / Industries

## Power Plants



Catalyst Regenerator

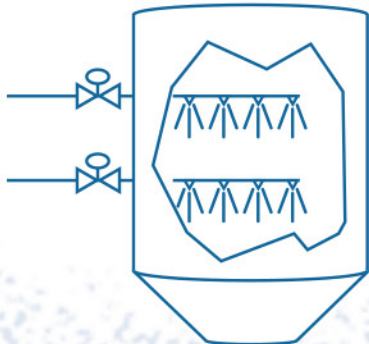


## Refinery Applications

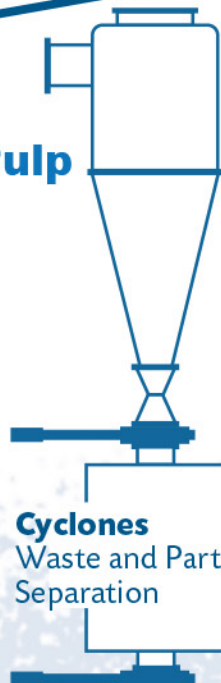


Hydrocracking -  
FCC Unit

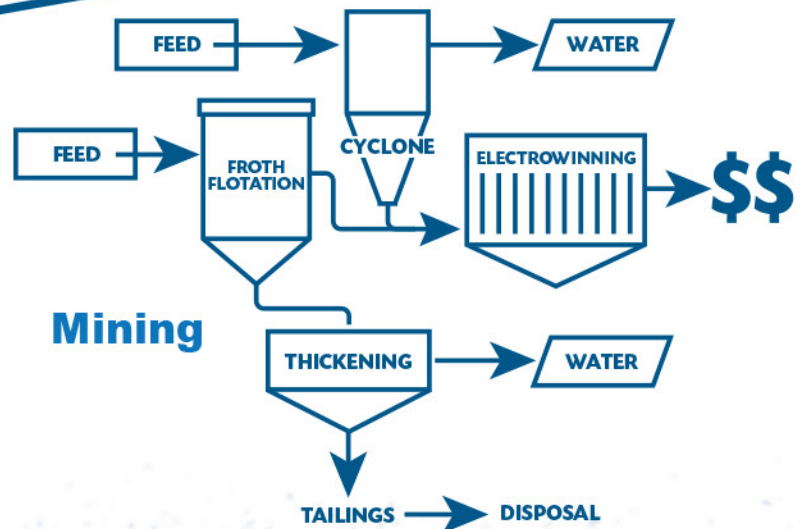
## Chemical - Paper / Pulp



Scrubbers with  
Abrasive Media



Cyclones  
Waste and Particle  
Separation



## Mining