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ENGINEERING YOUR UPTIME.

PETROLEUM REFINING VALVE SOLUTION GUIDE



Petroleum Refining Applications

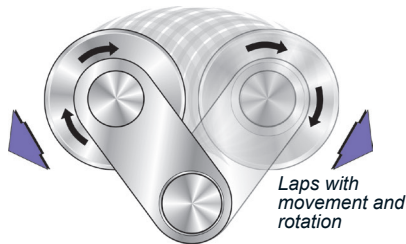
Distillation • Hydro-processing • Fluid Catalytic Cracking (FCC) • Delayed Coking • Sulfur Recovery • Utilities

Petroleum refineries expose valves to high temperature, abrasive catalyst, coke particles, wax/oil residues, steam, and chemical attack. Conventional metal-seated ball valves, globe valves, and gate valves struggle with erosion, coking, thermal stress, packing failure, and seat leakage.

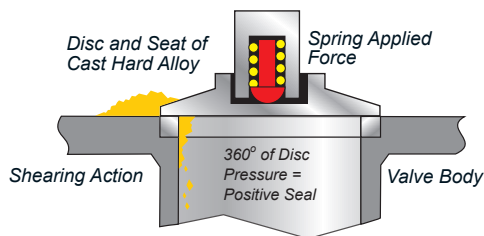
Everlasting's rotating-disc valve technology excels in these severe-service conditions because the disc continuously wipes clean, prevents buildup, and seals tighter over time, even under abrasive or sticky media.

Everlasting Valves & Diverters Features:

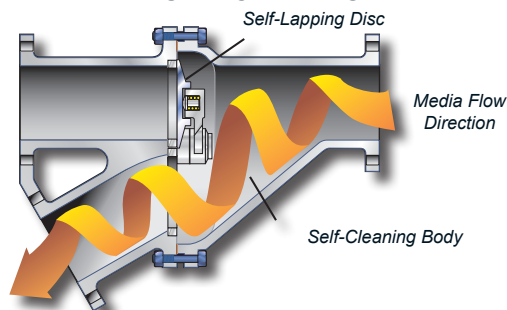
SELF-LAPPING SEALING SURFACES



POSITIVE SHUT-OFF



SELF-CLEANING



Key Petroleum Refining Applications for Everlasting Valves

Distillation • Hydro-processing • Fluid Catalytic Cracking (FCC) • Delayed Coking • Sulfur Recovery • Utilities

Crude & Vacuum Distillation Units (CDU / VDU)

Location: Bottom residue systems, desalter water outlets, overhead accumulator drains

Media: Heavy residual oil, water, sediment, contaminants

Valve Type: Process

Why EV Works: Handles solids and sediment in bottom streams, no seat cavity → no sludge or sediment packing, and reliable sealing during thermal cycling.

Fluid Catalytic Cracking (FCC) Units

Location: Spent/regenerated catalyst handling, slurry oil transfer, regenerator diplegs

Media: Catalyst fines, slurry oil, abrasive gas/solids mixture

Valve Type: Bulk Material Valve (BMV) / Process

Why EV Works: Ideal for dense-phase catalyst and abrasive media, disc scrapes seat clean—prevents fines accumulation, and outlasts slide valves in auxiliary catalyst service

Delayed Coker Units (DCU)

Location: Blowdown systems, coke fines handling, quench water return lines

Media: Coke fines, heavy hydrocarbon vapors/liquids, steam

Valve Type: Process

Why EV Works: Resists coking and abrasive coke particles, no galling or sticking during drum switching cycles, and maintains leak-tight seal under thermal shock

Hydrocrackers & Hydrotreaters

Location: Recycle oil loops, catalyst handling, separator bottom

Media: Hydrogen-rich fluids, hydrocarbon slurry, catalyst fines

Valve Type: Process

Why EV Works: Resistant to sticky or coking residues, no plugging from catalyst fines, and high reliability during shutdown/startup cycles

Alkylation Units

Location: Acid settlers, blowdown, sample points, drain lines

Media: HF acid or sulfuric acid; hydrocarbon/acid mixtures

Valve Type: Process

Why EV Works: Excellent corrosion resistance and a reliable isolation under acid carryover

Sulfur Recovery Unit (Claude / SRU / TGTU)

Location: Tail gas treatment, sulfur pits, incinerators.

Media: Molten sulfur, H₂S, SO₂, sulfur vapor.

Valve Type: Process

Why EV Works: Unaffected by sticky or crystallizing sulfur and a self-wiping action prevents sulfur bridging

Why Everlasting Valves Excel in Petroleum Refining Environment

- Disc rotates every cycle, wiping away coke, catalyst, and solids
- Seat wears in, not out, creating long-term tight sealing
- Handles sticky, abrasive, corrosive fluids better than ball/gate valves
- No cavities where solids or coke can accumulate
- Extended performance, reduces maintenance and downtime
- Proven in the harshest refinery services worldwide for decades



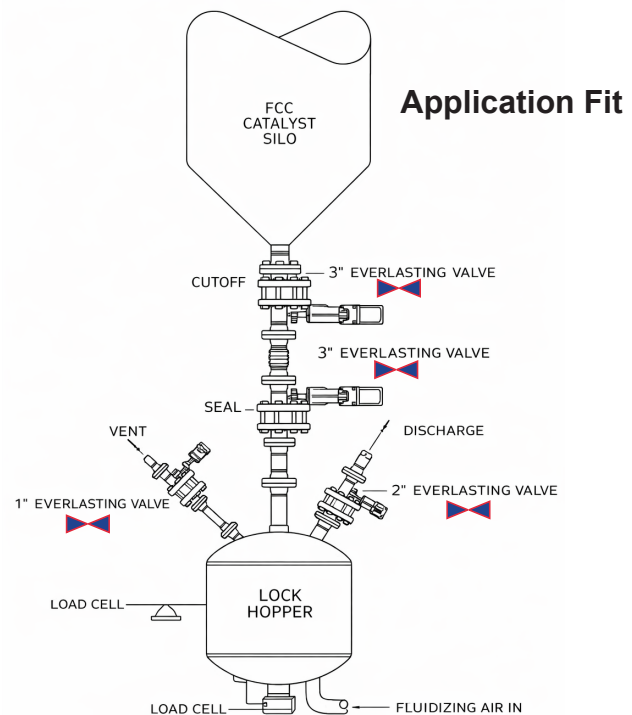
Application and Everlasting Valve Product Fit:

Fluid Cat Cracker (FCC)

- Hot CAT Slurry Pump Isolation
- Fresh CAT Feed
- Equalizing CAT Add
- Hot CAT Withdrawal
- Hot CAT Sampling
- Bag-house Discharge
- Cyclone Discharge
- Third Stage Separator Discharge
- Precipitator Discharge
- Truck Load-out

Reformer / Platformer

- Lock Hopper Inlet / Outlet
- Lock Hopper Vent
- Reactor Isolation
- Motor Operated Valves (Fixed Bed)
- Lift Engagers / Surge Hoppers



Refinery Area	Media	Everlasting Valve Type	Function
Distillation	Heavy oil, water, solids	Process	Bottoms isolation
FCC	Catalyst, slurry oils		Catalyst & slurry control
Delayed Coker	Coke fines, vapors		Blowdown/coke handling
Hydro processing	Hydrogen-rich, slurry		Isolation/control
Alkylation	HF/Sulfuric acid		Corrosion-resistant isolation
Sulfur Recovery	Molten sulfur		Sticky media isolation
Utilities	Steam/water	Blowdown	Purge/clean out



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Service Excellence in Action

When you choose Everlasting Valve Company, you're not just selecting a product—you're gaining a partner dedicated to long-term performance and support. Our commitment to service extends far beyond standard maintenance or repair. It means timely access to our knowledgeable team of engineers and service professionals—ready to respond anytime, anywhere your operations demand.

At Everlasting, we pride ourselves on becoming an extension of your team. You can count on us to take ownership of every challenge and deliver practical, lasting solutions. When issues arise, our technical experts go beyond the symptoms to uncover the true cause. We evaluate your complete system to identify and resolve problems with precision and care.

Our comprehensive service approach is designed to maximize equipment reliability, enhance operational efficiency, and reduce total cost of ownership.

Contact us today for your next project!



Whether you are requesting a quote, need more information, or want to discuss customized valves that address your specific requirements, just let us know. Everlasting Valve is committed to providing prompt, responsive service, every time.

Everlasting Valve Company

108 Somogyi Court
South Plainfield, New Jersey 07080

☎ 908.769.0700

📠 908.769.8697

✉ info@evcousa.com

🌐 www.evcousa.com

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