

Oil & Gas Production

High cycles, high temperatures, heavy solids, sky-high hazards and high pressures are everyday, extreme conditions for valves in this field.



RELIABILITY

When a Cornerstone metal-seated ball valve fell off a truck enroute to a remote site, all thought it was done for. The welded ends were dressed up, a gear was repaired – and the valve still shut off tight.

CORNERSTONE PRODUCTS FOR OIL & GAS PRODUCTION

- Top Entry Ball Valves
- Top Entry Swing Check Valves
- End Entry Ball Valves
- Rotary Control Valves / Chokes

CASE STUDY

In a major oil field find in South America, the operator needed to hold field production pressures by compressing and re-injecting natural gas. Cornerstone supplied the high pressure (API 10K) hub-end ball valves in several sizes. After years of service, other brands developed multiple seal failures causing leak-through and external leaks. Not Cornerstone's. **Those trunnion mounted valves are still working – many installed more than 15 years ago.**

Reliable

In an industry where reliability is a must, Cornerstone Valve was called in to turn around an operation where 5,200 valves had been installed and more than 4,000 were inoperable.

Materials and Traceability

High temperature service demands specific materials, such as hard-facing cobalt based alloys – even the bolting has to be selected for temperature rating. Every part carries a certificate verifying chemical makeup, yield and tensile strength, heat treatment and place of origin.

Testing and Documentation

Standard testing at Cornerstone requires full cycling of every valve under a range of pressures. Complete test documentation ships with the certifications.

Solids and Erosion

Heavy solids and sand loading are routine in production service. Live-loaded scraper seats clean the ball on every cycle to prevent build-up, and coated trim resists erosive flow. See page 2 for launcher and receiver service.



End Entry 3 Piece Trunnion,
Model EE3

**Oil & Gas
Production**

Pipelines, Launchers & Receivers

Erosive fluid carrying solid particles, corrosive environment and transport problems – all of it demands extreme reliability.



26-inch Export DBB — under construction

SAVINGS

300 miles from the closest infrastructure, every ounce and inch makes a difference. Efficient top-entry valves with special scraper trims are the right answer for launcher and receiver service.

CORNERSTONE PRODUCTS FOR LAUNCHERS & RECEIVERS

Top Entry Ball Valves
End Entry Ball Valves

Tungsten Carbide, Nickel Boride
or Stellite Coated Scraper Trim

Standards and Procedures

Testing and documentation on this scale has to be managed – procedures incorporating MIL, DoD and other standards, credential verification and materials control are standard process here.

Quality

Every supplier must comply with and be verified through a demanding audit process.

Reliability

Valves are designed and tested to customer-specific requirements in excess of API and ISO standards, with certificates covering chemical makeup, strength, heat treatment and origin.

Serviceability

The top-entry trunnion design is serviceable in-line – internals come out without removing the valve from the line.

SOLUTIONS FOR THESE APPLICATION AREAS

- Block valves
- ESD shut-down valves
- SDV shut-down valves
- Compressor recycle
- Produced water reinjection
- Gas injection
- Water injection
- Main export valves
- Blowdown & gas-to-flare
- Heavy sand loading
- HIPPS applications
- Production manifolds
- Chemical injection
- Sand separator valves
- Gas dehydration switching
- Riser valves
- PRV isolation
- Gas processing
- Metering skid isolation
- Pig launcher / receiver

Industries served: Oil & Gas Production, Pipelines, Topsides, Subsea, LNG & Cryogenic, Power Generation, Refining, Chemical & Petrochemical, Pulp & Paper, Mining, Aerospace, Maritime & Defense and Waterworks.

