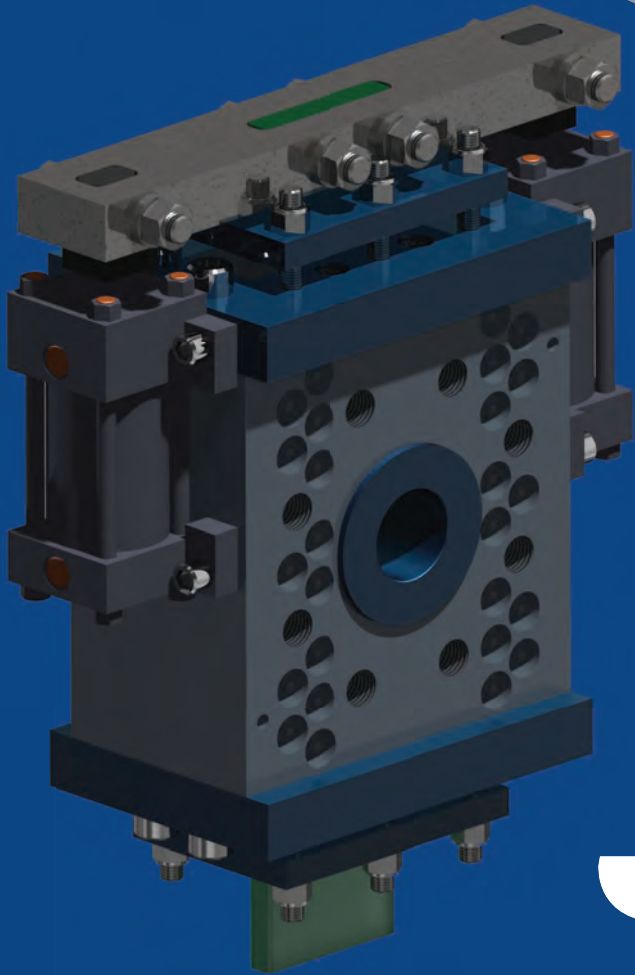


TRUELINE[®]

SPECIAL PROJECTS REFERENCE LIST



- HIGH TEMPERATURE SERVICE

- HIGH PRESSURE SERVICE

- SLURRY SERVICE

- CORROSIVE & ABRASIVE SERVICE

JC[®] — TC[®]

'O' Port Knife Gate Valve

'O'-port knife gate valves are designed specifically for high pressure abrasive service, processes which tend to coagulate, crystallize and increase in torque to open & close.

DESIGN FEATURES:

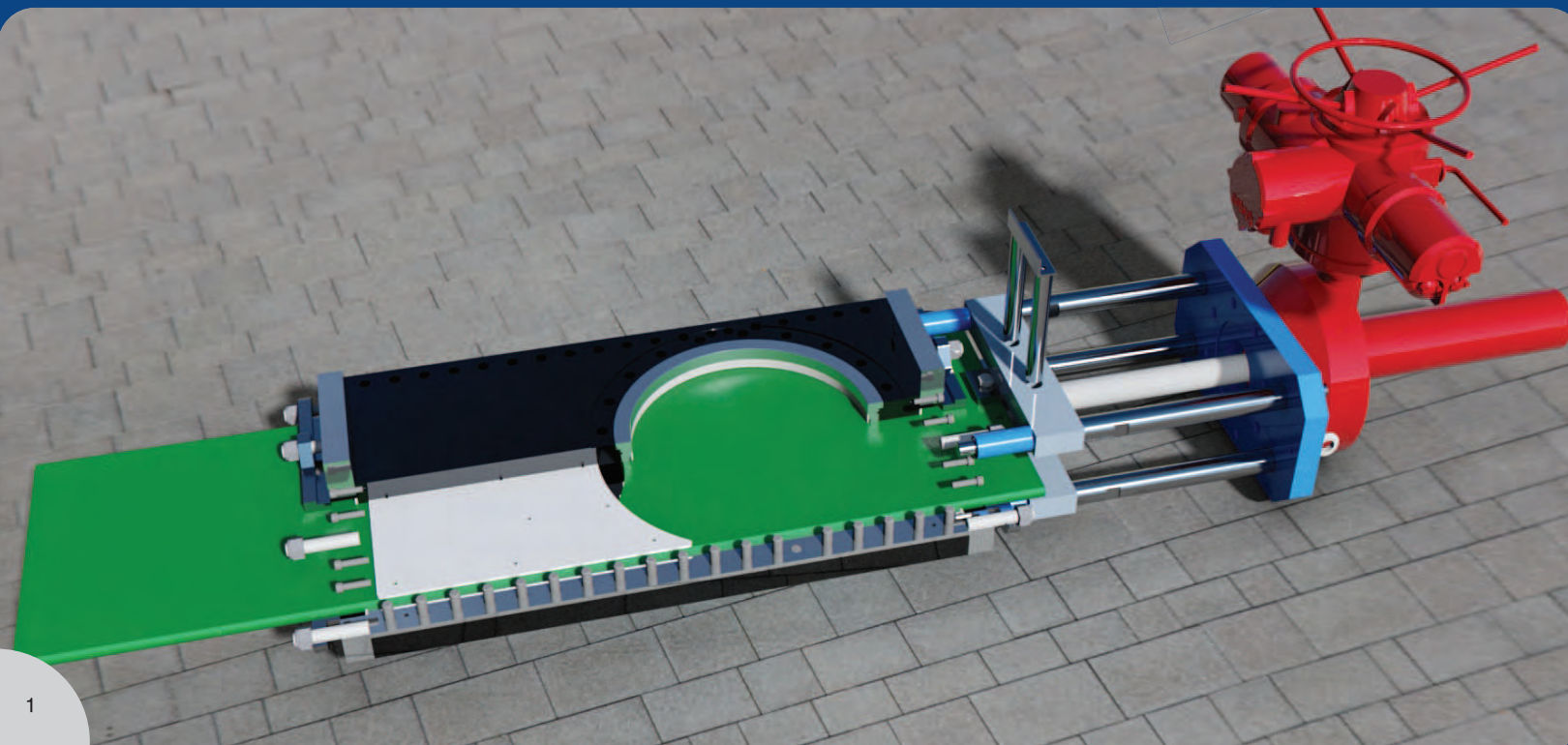
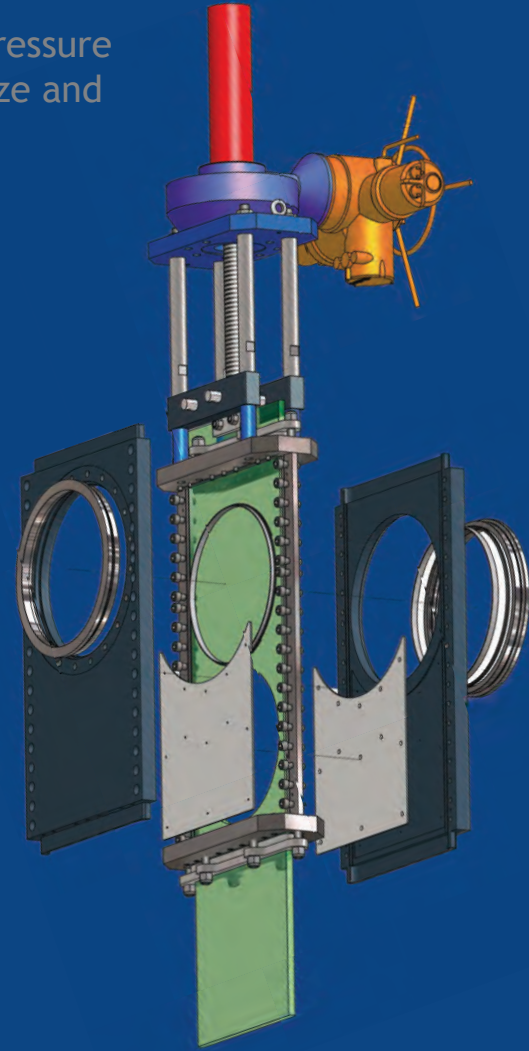
- ANSI 150LBS full port design.
- Also available in ANSI Class 300 & 600.
- Body - Carbon Steel, Gate - SS316 c/w HT-65.
- Lower chamber lined to prevent process from entering into the cavity, avoiding contamination during opening cycle.

PROJECT NAME:

WORSELY AUSTRALIA: 24" & 30" knife gate valves were built to handle highly abarsive mining slurries.

SIZE RANGE:

2" - 48"



'O' Port Knife Gate Valve

A non shouldering 'O' port knife gate valve is designed to eliminate process built-up in the cavity between the body and the gate. The process material is scraped off the gate and flushed to the piping without any residual traces trapped in the valve. Process Condition(s): Abrasive slurry, vertical column applications.

DESIGN FEATURES:

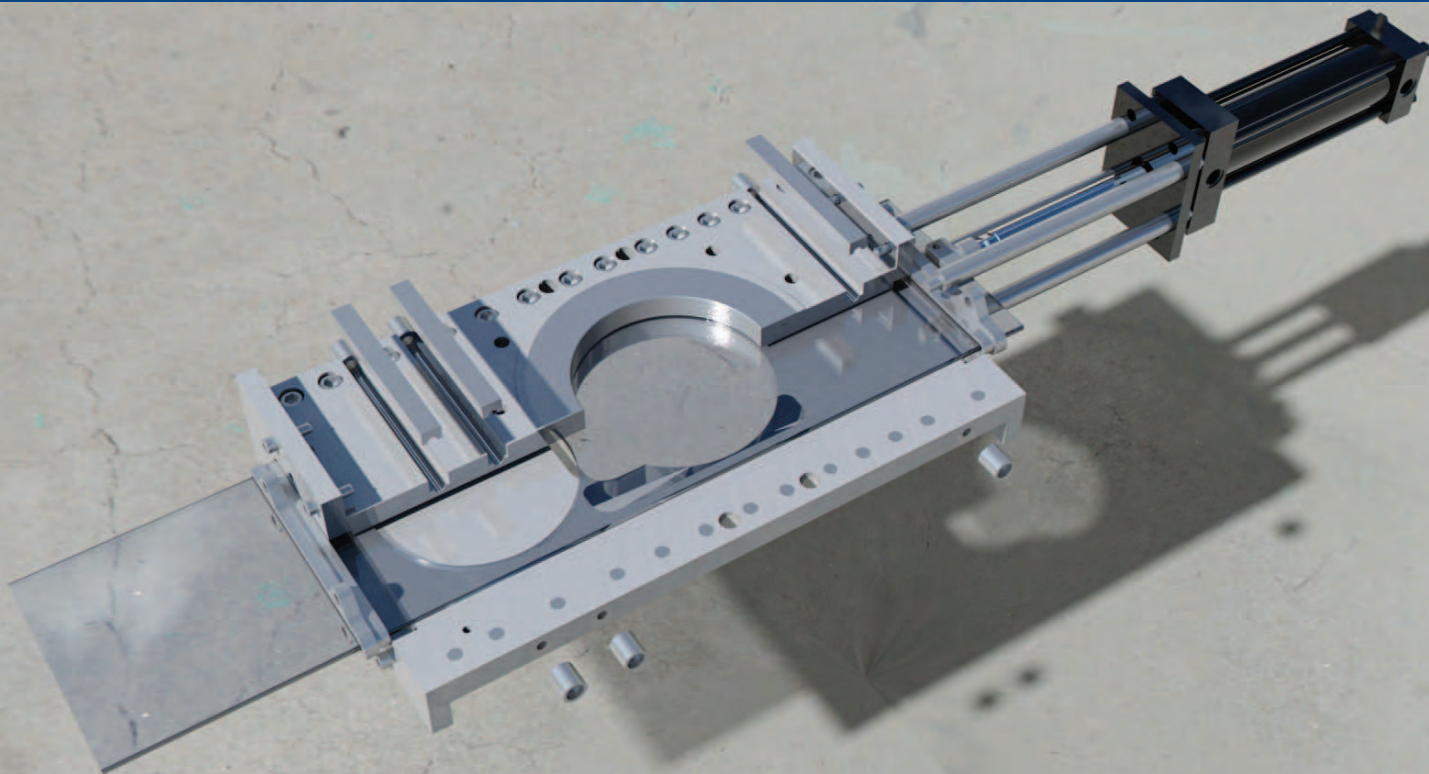
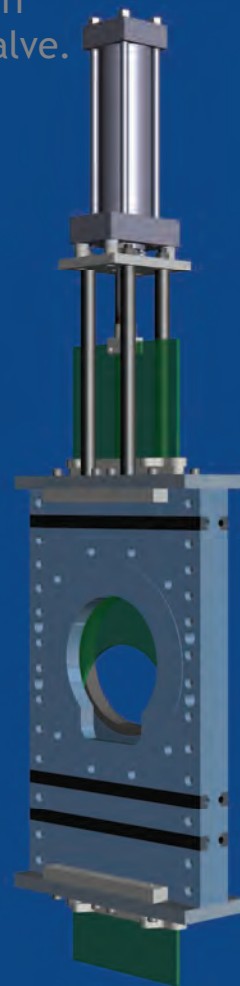
- ANSI Class 150LBS design.
- Bidirectional bubble tight shut off design.
- Construction: SS316 (CF8M) c/w two renewable AFLAS seats.
- Working Temperature 1250° F c/w water cooling system, allows the valve to use soft elastomer at high temperature.
- Process Condition(s): Abrasive slurry, vertical column applications.
- Scraper design cleans gate on open and close cycles
- Outstanding Feature: Non shouldering option prevents process 'built-up' in the closed position

PROJECT NAME:

BHP BILITON AUSTRALIA: Valve Size:- 6", 8", 10" & 12".

SIZE RANGE:

2" - 48"



'O'-port knife gate valve is designed specifically for very high pressure and abrasive processes. This valve is designed with abilities to handle slurries in the Ore's Refinery & Processing Unit.

DESIGN FEATURES:

- ANSI Class1500lbs flange design.
- Bidirectional Class VI shut off.
- Designed for tight locations.
- Dual actuators side mounted.
- Gate and seats infusion available: HT-65*, Chrome Oxide*, Titanium Chrome Oxide*, VAC I*.

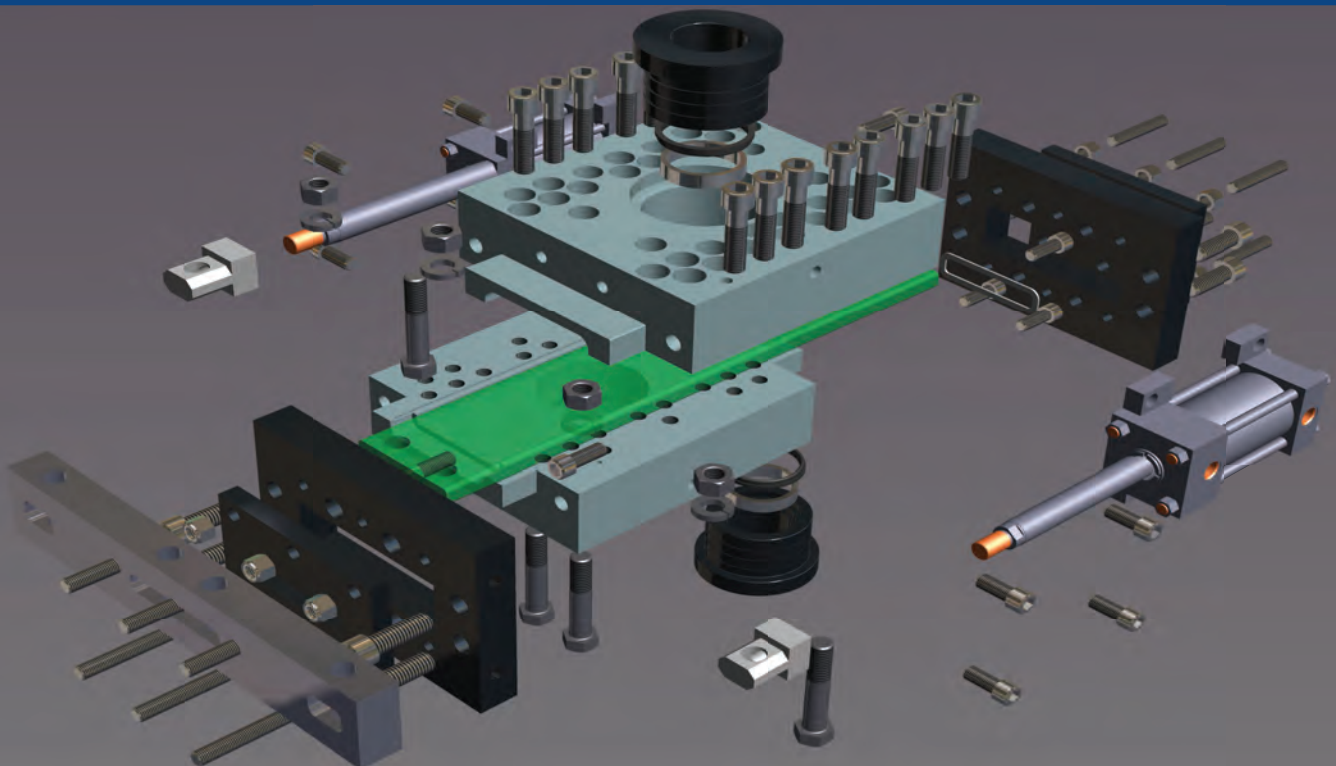
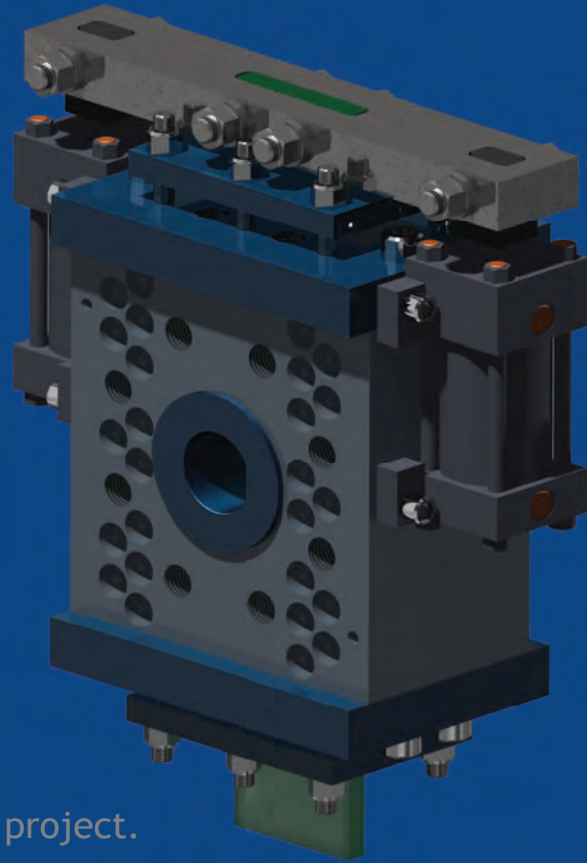
*Depending on the service conditions

PROJECT NAME:

GOLDER MINING CANADA: 4" Class 2500 low profile dual hydraulic cylinders on the sides. Used for the ore refinery project.

SIZE RANGE:

Please consult factory for size availability.



Duplex Stainless Steel Knife Gate Valve



Our knife gate valves are fully customized to meet your specific process requirements. Built in wide variety of exotic alloys, our unique seat designs (live loaded, tapered, renewable and wire cutter etc.) allows us to design valves to very specific needs. Automation options such as pneumatic cylinder, gear drive, electric actuator are some of the special custom designs of our products.

DESIGN FEATURES:

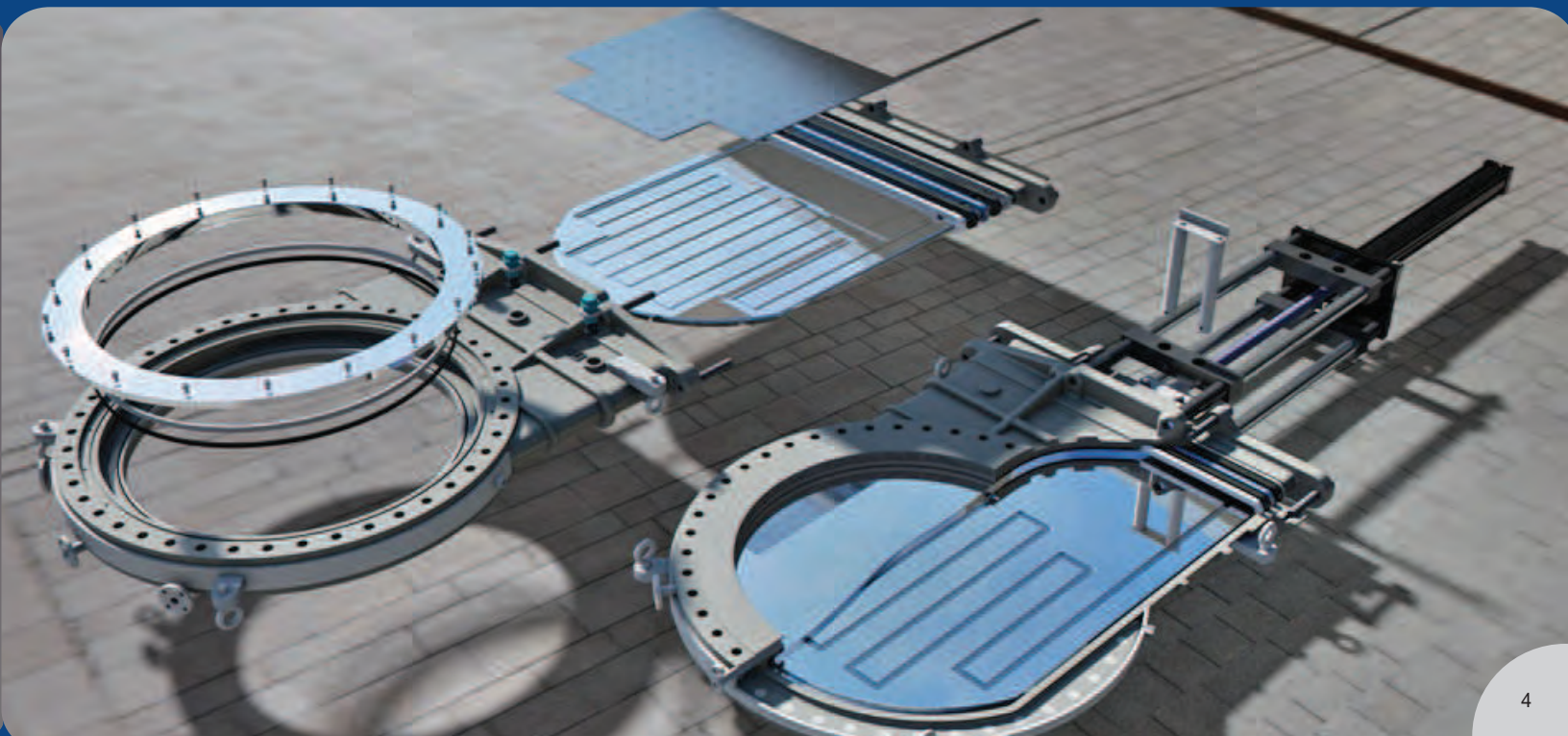
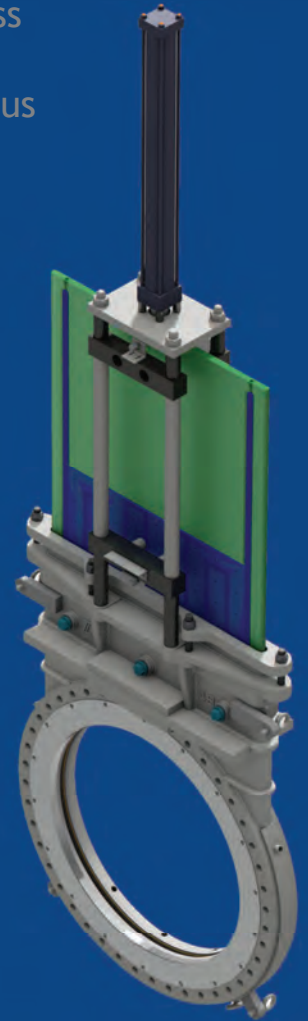
- Unique Feature: Full steam jacket on the exterior of the body.
- Uniquely designed gate which allows steam tracing.
- Bidirectional - Bubble tight shut off to 50 psig.
- Hydraulic automation.
- Locking device, live loaded stuffing box.

PROJECT NAME:

NALCO USA: 48" Duplex stainless steel knife gate valve designed with a heating channel engraved in the gate and the body to prevent process from solidifying and sticking to the valve parts.

SIZE RANGE:

2" - 48"



Diamond Port Knife Gate Valve

Diamond port control knife gate valves are specifically designed for autoclave service, resisting both corrosion & abrasion @ 350° F. 'Titanium GR XII' base material c/w Titanium Chrome Oxide infusion and a self contained hydraulic actuator.

Process Condition(s): Corrosive & abrasive process fluids.

DESIGN FEATURES:

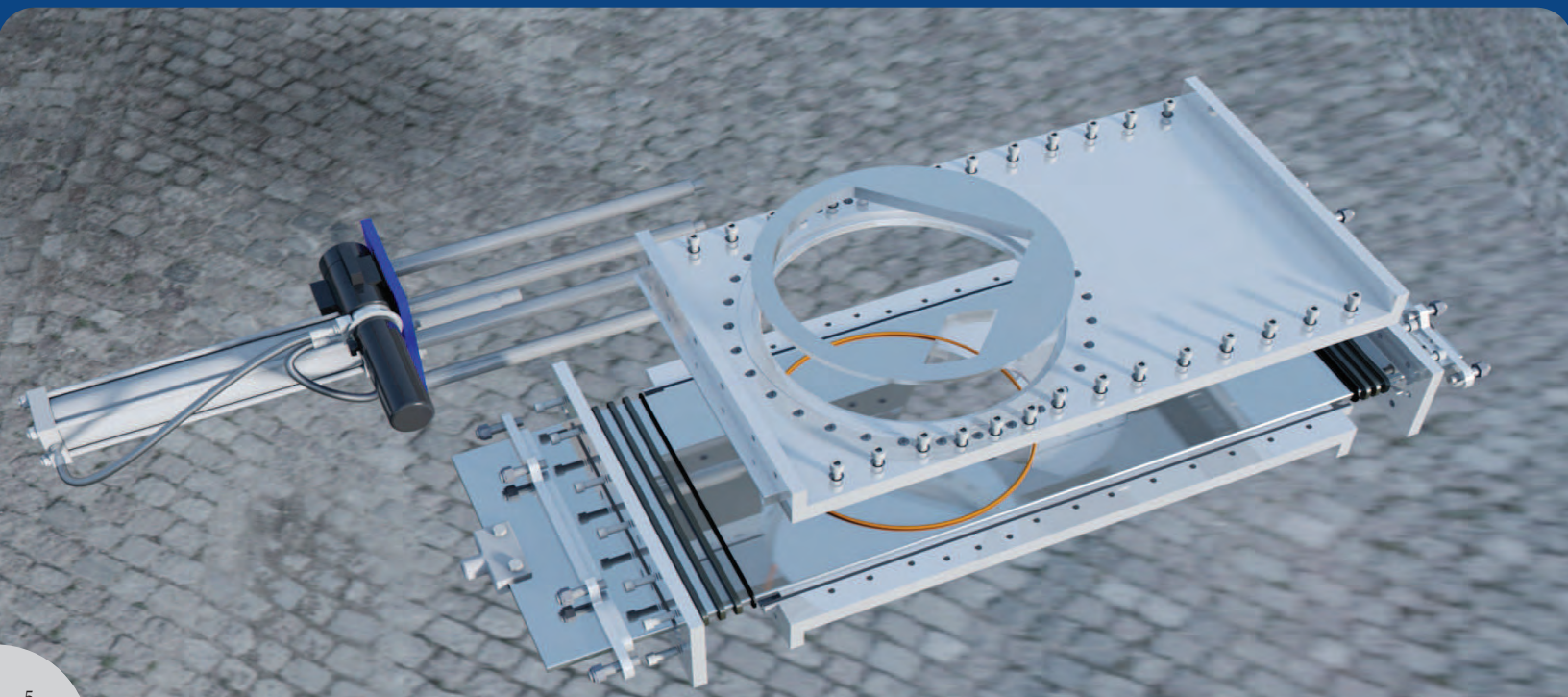
- Diamond Port Design.
- Body & Gate- Titanium GR XII c/w Titanium Chrome Oxide infusion.
- Also available in Duplex SS2205, 254 SMO, Hastelloy 'C', Inconel 600 or 800, Incoloy 718 or Zirconium.
- Infusion hardening for all the above alloys is readily available.
- Hydraulic Actuator with self contained unit.
- Customer is required to provide a power supply, everything else is included.
- Explosion proof & intrinsically safe, are standard offerings.
- Expediated deliveries (< 12 weeks) upon request.

PROJECT NAME:

WORSELY AUSTRALIA: 12" Diamond port knife gate valves were built to handle autoclave service, resisting both corrosion & abrasion.

SIZE RANGE:

2" - 48"



'Ultimate' Slurry Knife Gate Valve



Full bore knife gate valve built for heavy slurry service mounted with a self contained hydraulic actuator sized for 1000 psig. The actuator is capable of increasing it's load to 3000 psig with a variable relief valve, obtaining extra power when required.

Process Condition(s): Heavy slurry processes.

DESIGN FEATURES:

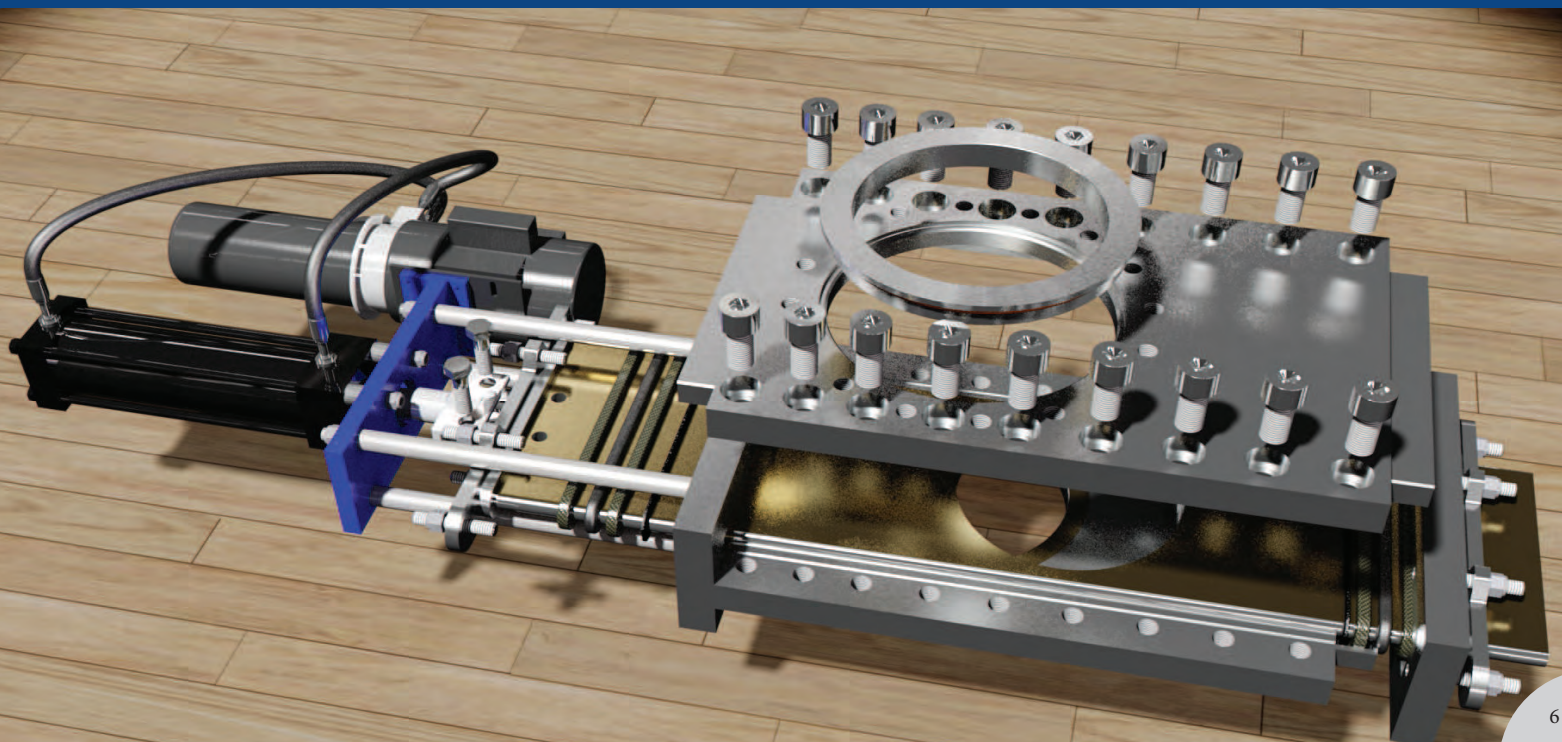
- ANSI Class 150LBS full bore design.
- Crevice less in open position, tight tolerances.
- Particle size > 0.005 (5 microns) will not pass through the tolerances of the valve.
- Construction: Carbon Steel body with SS316 (CF8M) gate. Also available in Stainless Steel - 304H, 304, 316, 317 Duplex SS2205 254 SMO, Inconel 600 & 800, Incoloy 718, Hastelloy 'B' & 'C' 276 Titanium & Zirconium.
- Seats & gate are in Duplex SS2205, c/w HT-65 infusion.
- Working Temperature: Ambient ~ 1700°F.

PROJECT NAME:

RIO-TINTO, U.S STEEL, MITTAL.

SIZE RANGE:

2" - 48"



Ultimate Round x Square Port Knife Gate Valve

'Round by Square'-port knife gate valves can fit in all square inlet designs.

DESIGN FEATURES:

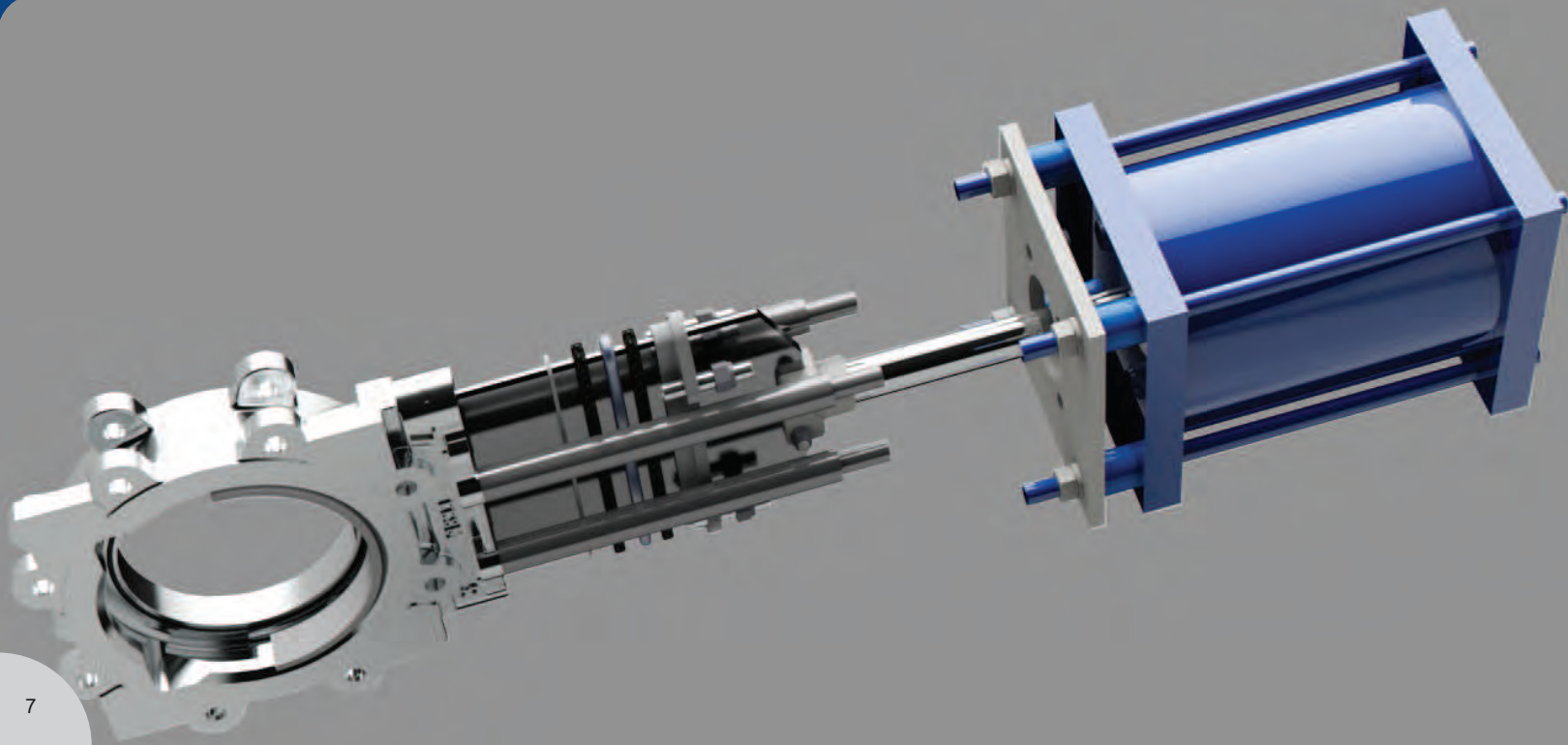
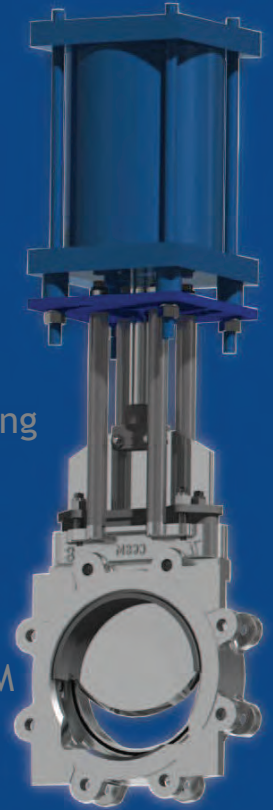
- Feature: HT-65 heat treatment on hardened gate for long life.
- Scraper design c/w HT-65 infusion.
- Scraper retainer c/w HT-65 in stuffing box prevents process debris from entering and causing premature leaks to packing.
- Non shouldering outlet prevents trapping of the process in the closing position.
- ½" NPT flush ports to purge while closing the valve.

PROJECT NAME:

ROCK TENN: 8" Round by square knife gate valve with reverse flow, EPDM 'O'-ring and teflon braided packing.

SIZE RANGE:

Please consult factory for size availability.



Square Port Knife Gate Valve



Custom made square port knife gate valve c/w HT-65 treated body & gate with pneumatic cylinder. Designed for ash handling system and abrasive service.

DESIGN FEATURES:

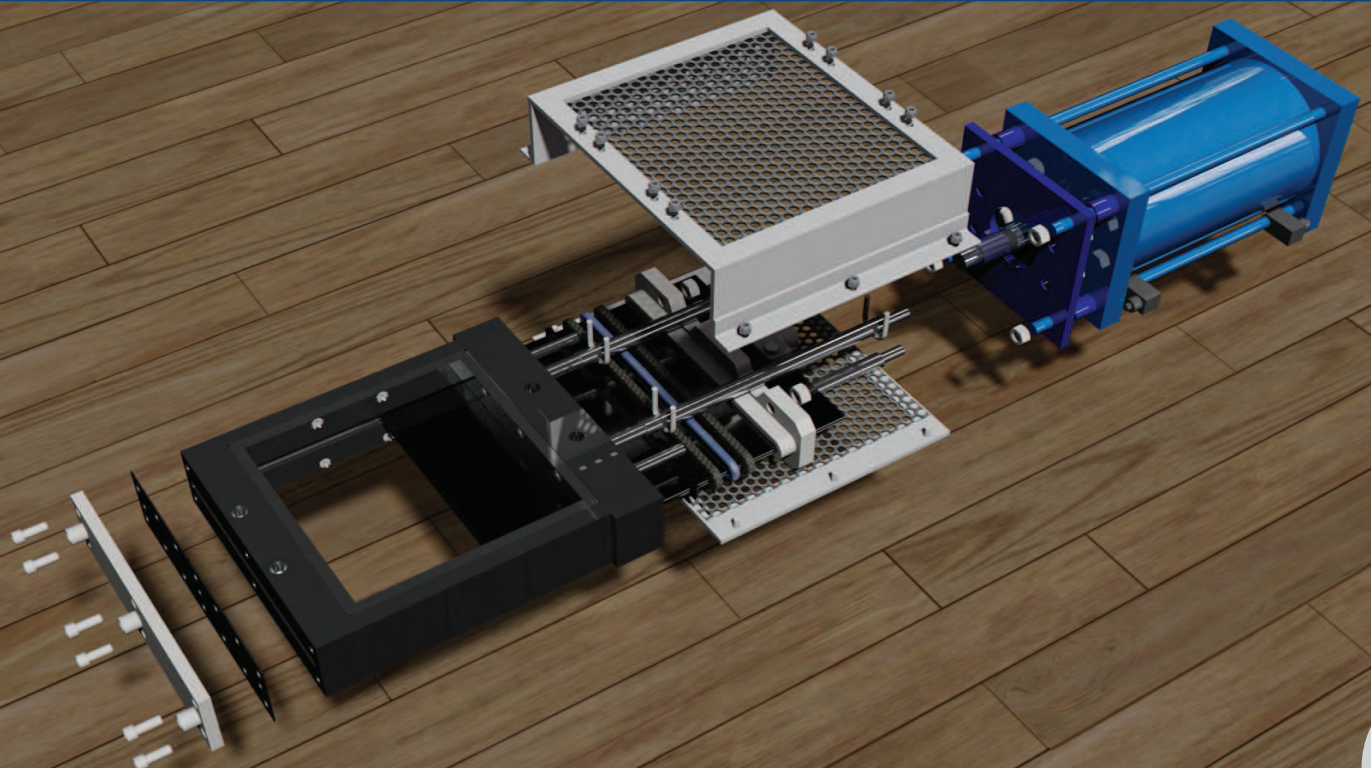
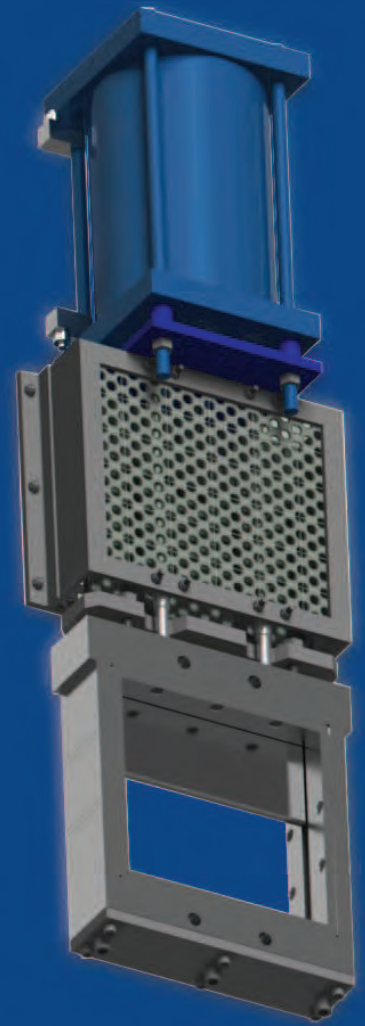
- Feature: Body and gate are fully treated with HT-65 infusion.
- Equipped with lower service ports for in-line maintenance.
- Special Feature: Unique flushing device preventing humid process from clogging.
- Moving parts are fully covered for worker's safety (OSHA).

PROJECTS NAME:

GREIF BROTHER PAPER U.S.A: 10"X10" & 6"x6" square knife gate valves, resilient seated, with bottom service ports. The valves were manufactured for high density cleaning and screening of unusable material after pulping.

SIZE RANGE:

Please consult factory for size availability.



Square Port Knife Gate Valve

'Square'-port knife gate valves are designed specifically for heavily slurry laden process fluids. This valve is designed with three purge ports to flush any process residual to avoid clogs.

DESIGN FEATURES:

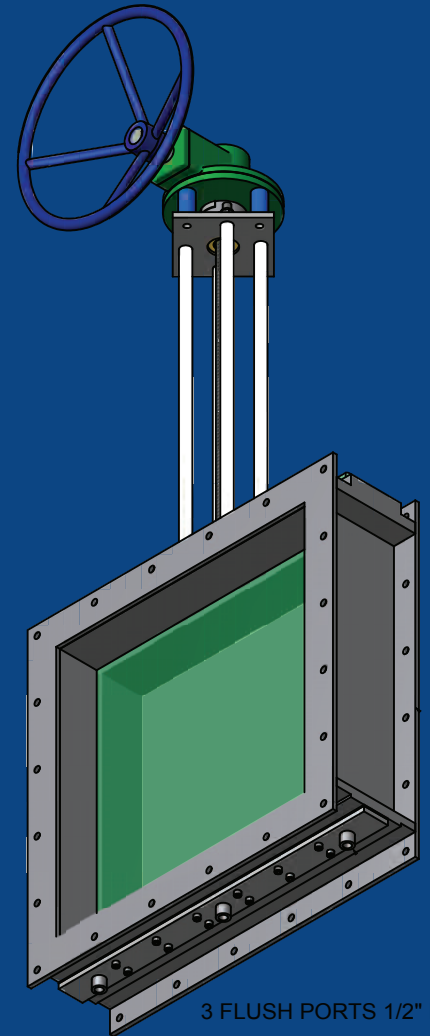
- Fabricated body design.
- Bidirectional tight shut off.
- Machined to very tight tolerances.
- HT-65 treated gate to resist abrasive process particles.
- ½" NPT flush ports to purge while closing the valve.

PROJECT NAME:

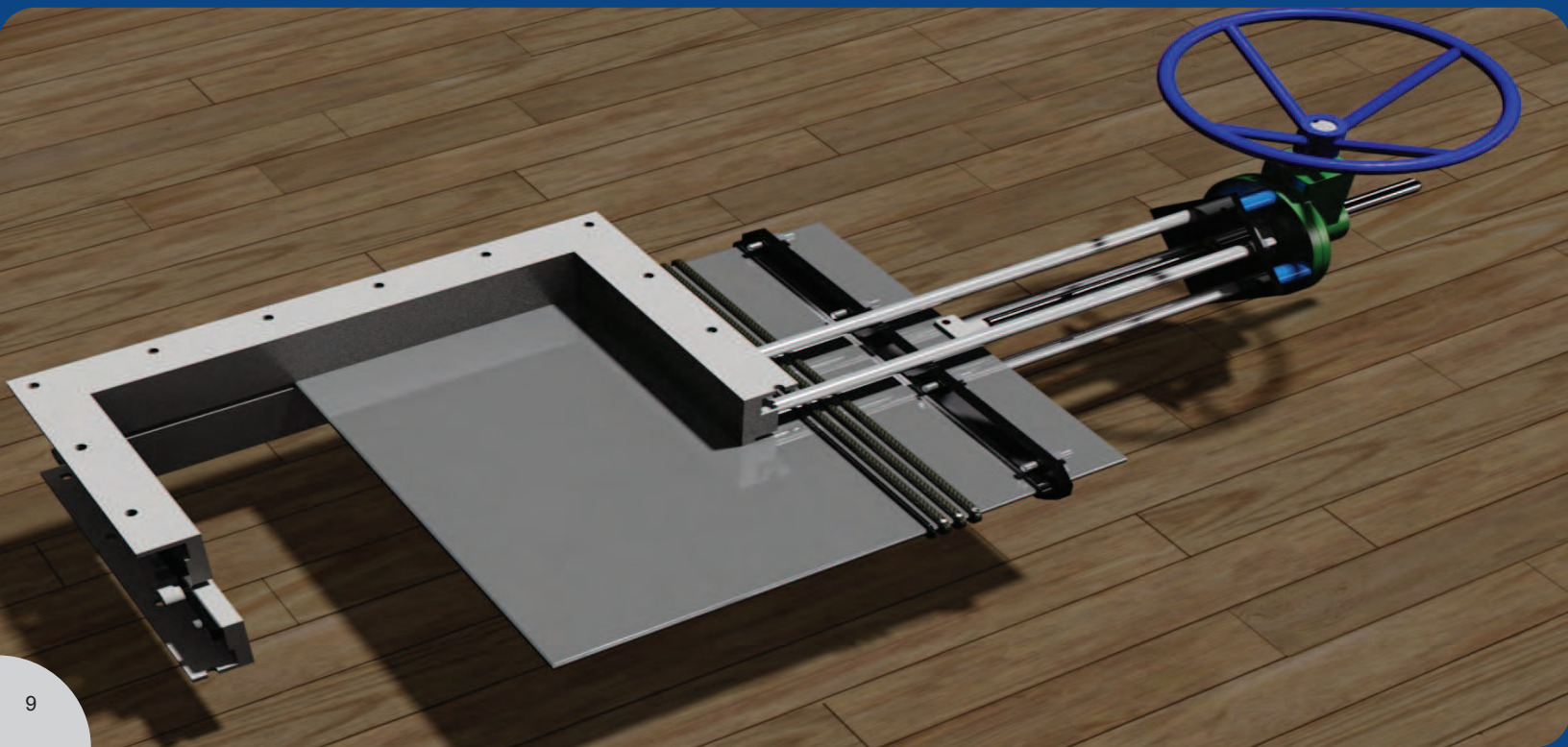
ANDRITZ CANADA: 26"X26" square valve, metal seated with gear operator, designed to withstand heavy slurry fluids.

SIZE RANGE:

Please consult factory for size availability.



3 FLUSH PORTS 1/2" NPT



Rectangular Port Knife Gate Valve



Our knife gate valves are fully customized to meet process & piping requirements. Rotork electric actuator, scraper seat design and HT-65 treated gate are some of the special highlights of our product.

DESIGN FEATURES:

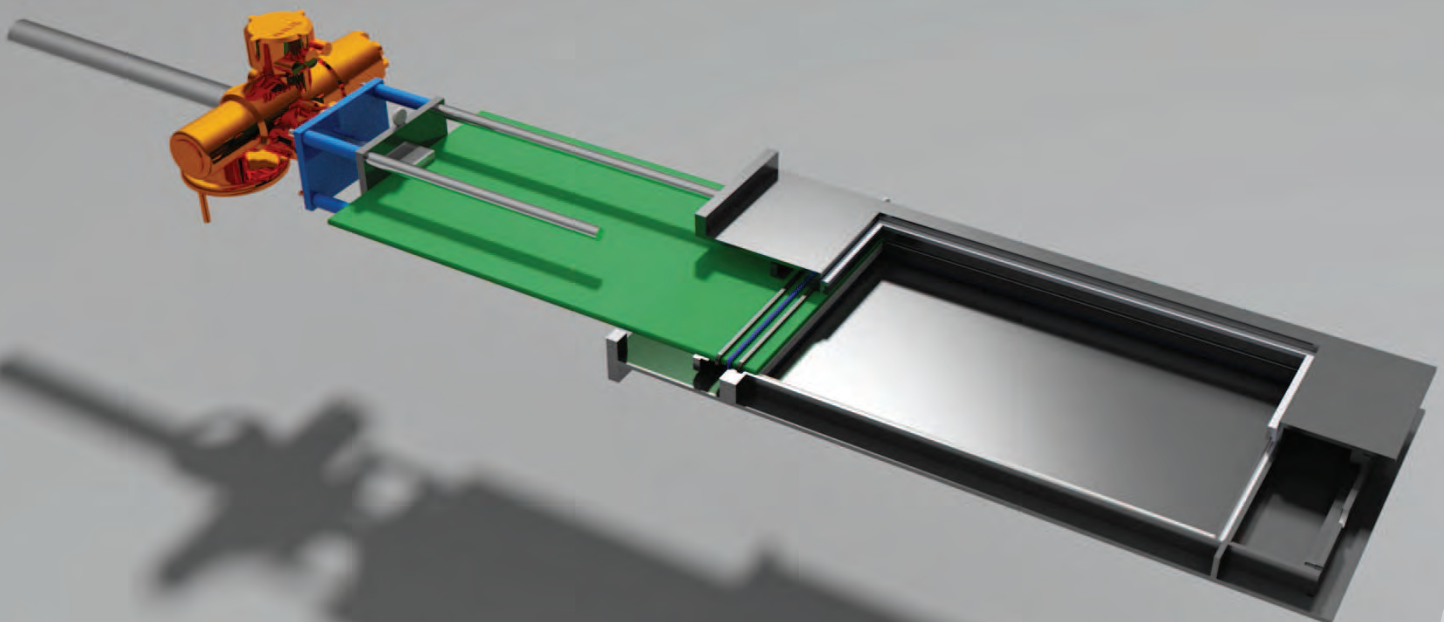
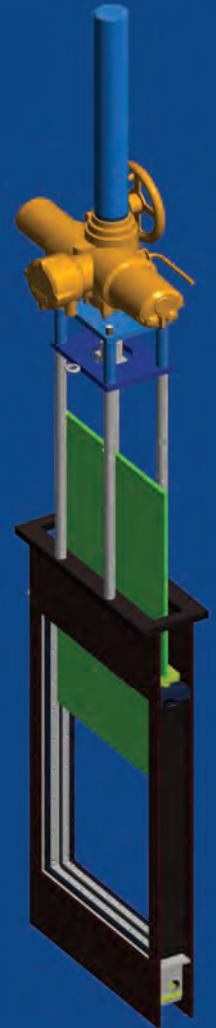
- Special Feature: Polished gate with HT-65 infusion.
- Low porosity feature.
- Scraper design cleans gate on open and close cycle.
- Electrical automation.

PROJECTS NAME:

ROCHE CANADA: 44"X25" rectangular knife gate valve, resilient seated, with bottom service port. The valve is best suitable for very fine powders, abrasive and dry process materials.

SIZE RANGE:

Please consult factory for size availability.



Dual Bonnet Knife Gate Valve

'O'-port knife gate valve is customized with dual bonnets & redundant packing system preventing volatile gases for being released into the atmosphere.

Applications: reactor shut off valves, slurries & emulsions etc.

DESIGN FEATURES:

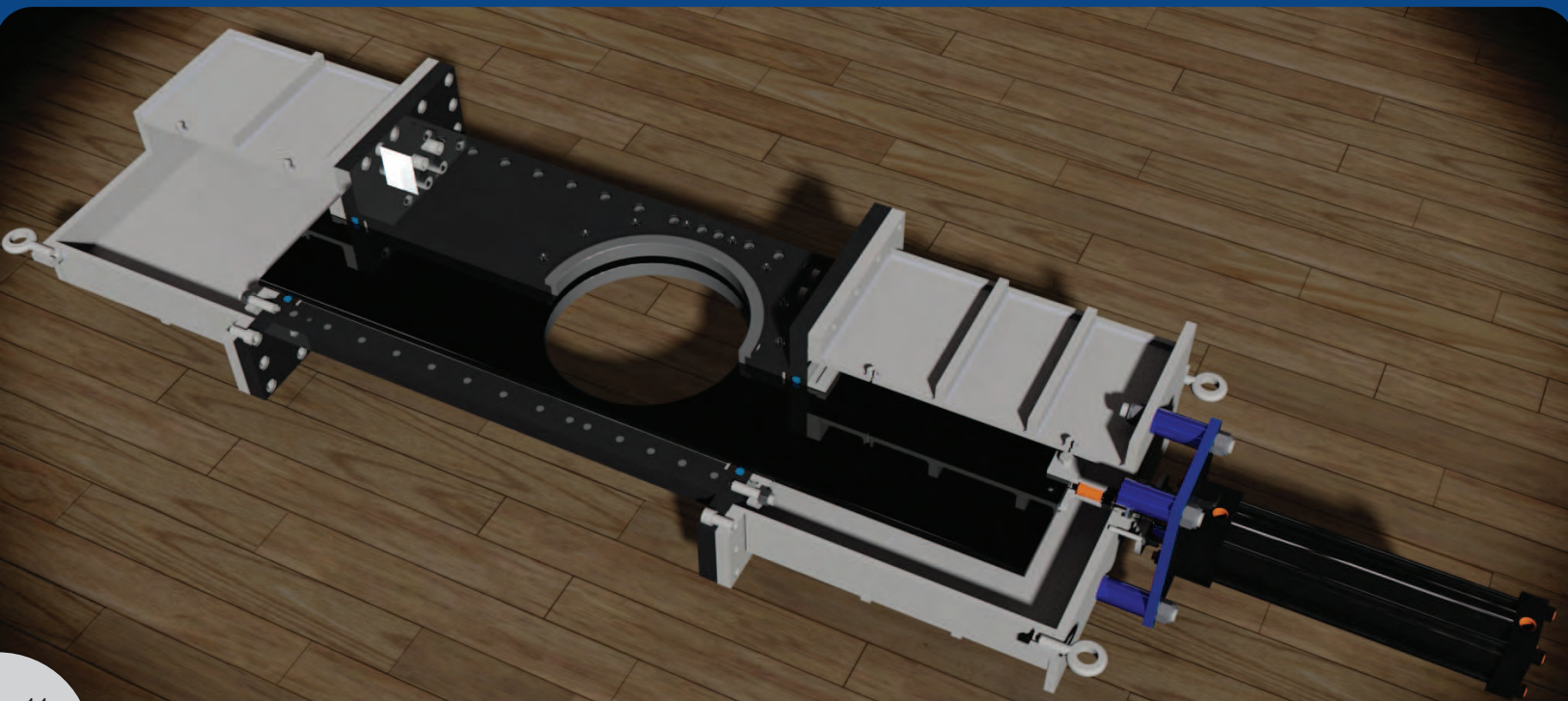
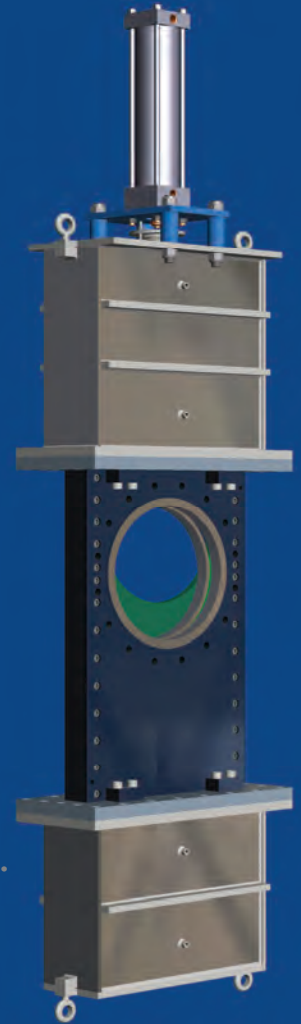
- ANSI Class 300lbs flange design.
- Bidirectional bubble tight shut off.
- Unique Feature: Dual bonnet.
- Outstanding Feature: ID (inner diameter) of the valve is same as ID of the pipe to avoid shouldering.
- The valve is crevice less, no process can enter or jam the tolerances of the valve.

PROJECT NAME:

16" full bore knife gate valve with dual renewable seats and top & bottom bonnets (reinforced to hold 150 psig pressure) to avoid leakage through packing. Built for slurry applications.

SIZE RANGE:

2" - 48" (Please consult factory for size availability).



'O' Port Knife Gate Valve c/w Flanged Face to Face Option



Knife gate valve machined from plate with flanges as per ANSI Class 150, designed to match customer requirements for special face to face. The gate is treated with our proprietary infusion process HT-65 to withstand abrasive service. Easy in-line service maintenance.

DESIGN FEATURES:

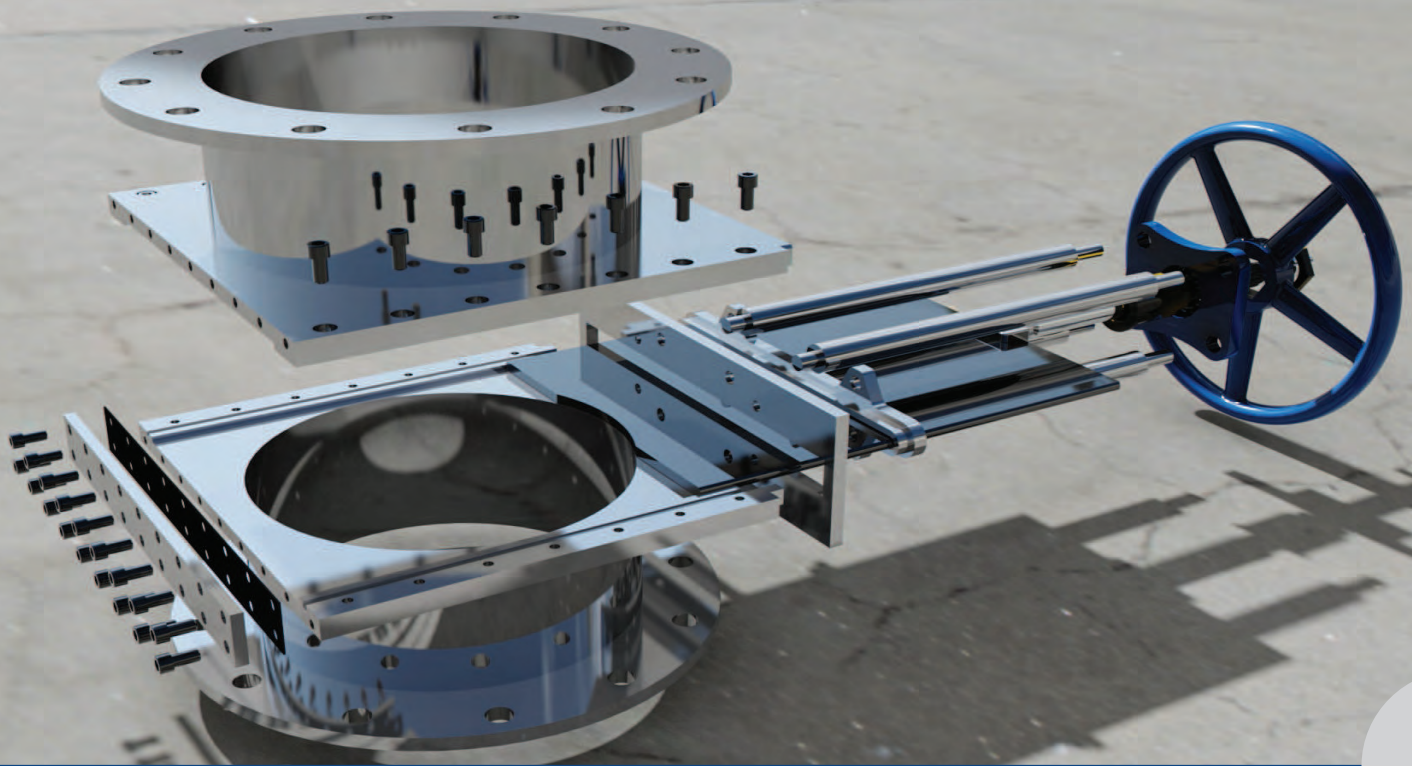
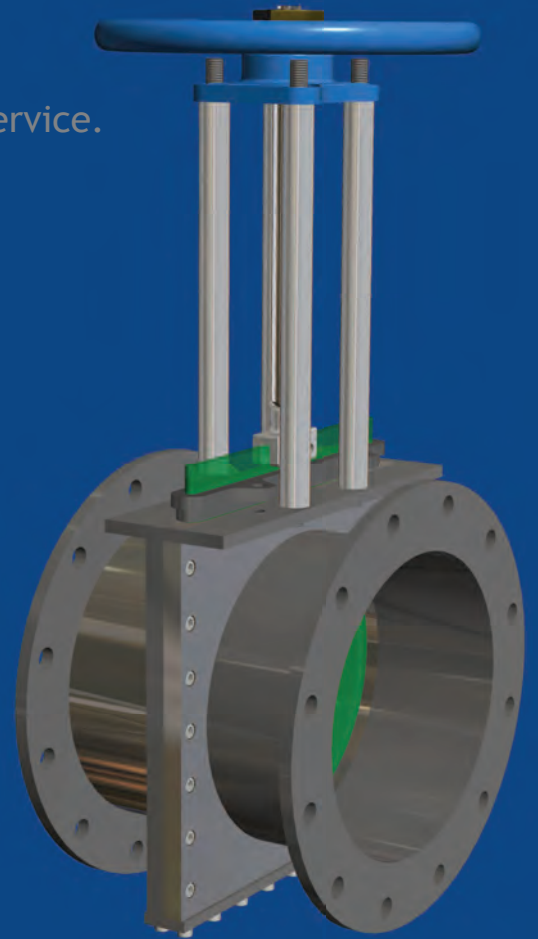
- Unique Feature: Special face to face.
- High temperature design below 1000°F application.
- Gate infused with HT-65 for abrasive service.
- Bottom service port allows cleaning of the valve while in-line.

PROJECT NAME:

SIMCOA AUSTRALIA: 12" knife gate valve designed to handle abrasive slurries at Silicon refinery site.

SIZE RANGE:

2" - 48" (Please consult factory for size availability)



Knife gate valve prepared for slurry service fitted with victaulic ends to replace butterfly valves. Highly recommended for mining services, dirty water & slurry applications at high pressure (120 ~ 150 psig).

DESIGN FEATURES:

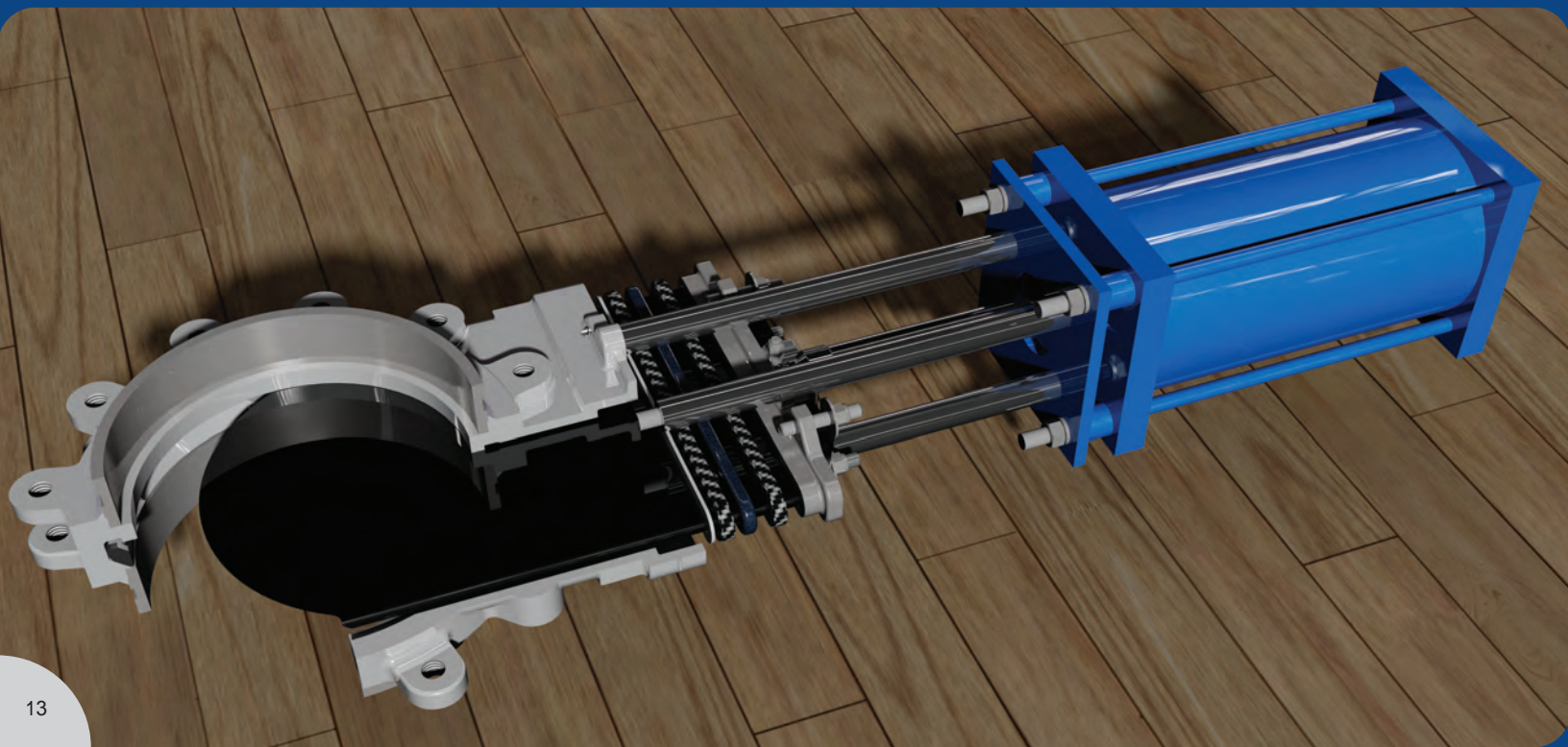
- No obstruction in the flow path.
- Available in ANSI Class 150lbs & 300lbs
- Ease of installation.
- Higher flow capacity.
- Tight shut off.
- HT-65 infusion on gate for longer life and to resist abrasive process particles.
- Special abrasion resistant packing to avoid leakage to atmosphere.

PROJECT NAME:

OSISKO CANADA: 12" & 18 knife gate valves with victaulic ends for handling slurries 10%-20% of Silcate and other hard elements.

SIZE RANGE:

Please consult factory for size availability.





Metal Seated Multi-Port Full Bore Ball Valve

Three, Four & Five way full bore metal seated ball valve available with 'L' or 'T' port arrangement (3-way), double 'L' or 'T' port arrangement (4-way) or one entrance 4-outlets (5-way) arrangement.

DESIGN FEATURES:

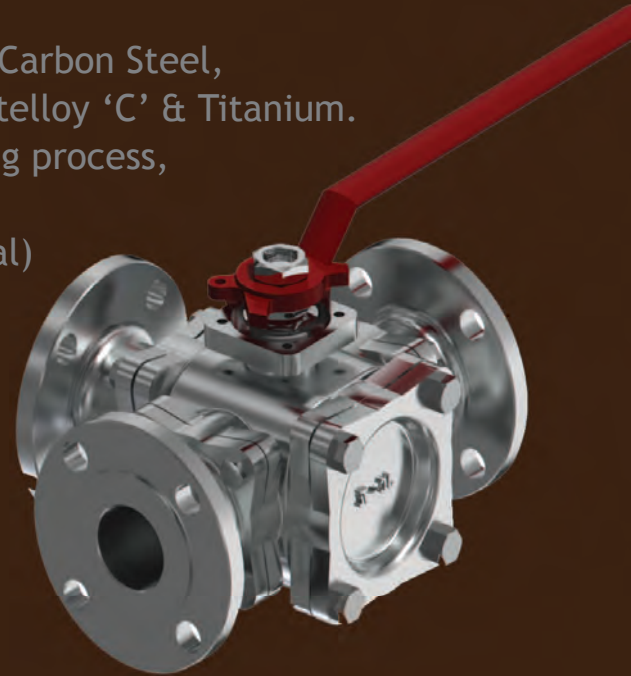
- Available in wide selection of body materials i.e. Carbon Steel, SS-304, 316, 317, Duplex stainless steel 2205, Hastelloy 'C' & Titanium.
- Metal seats, with HT-65 infusion or other hardening process, depending on base material.
- Seats also available in TT99 (a proprietary material) rated @ 650°F for Dow therm & thermenol applications & also for superheated steam @ 550°F & 300 psig pressure rating.

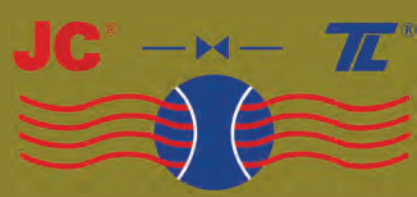
PROJECT NAME:

Various Customers (Reference upon request)

SIZE RANGE:

2" -12" (Available in ANSI 150/300 & DIN 16/40 standard flanges).



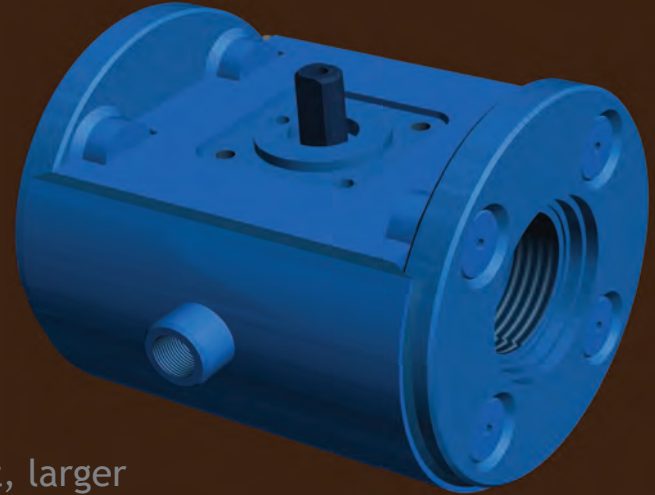


Reduced Port Ball Valve c/w Steam Jacket Option

Reduced port full jacketed ball valve to replace plug valves on installations requiring tracing. This valve has the same face to face as a plug valve, but higher Cv value.

DESIGN FEATURES:

- Available in ANSI Class 150lbs & 300lbs.
- Options: Zero leakage seats rated to 650° F or metal seats c/w HT-65 with Rockwell 70C hardness and a Teflon like surface.
- Highly lubricious finish preventing process from adhering to the surface and maintaining low friction loads and extending the cycle life.
- One of outstanding feature of this design is that, larger line flanges are not required (i.e. 2" line same flanges).
- The valve is fully jacketed and has ISO 5211 mounting pad.
- Like any standard valve it is fully repairable.
- Wide selection of body material.

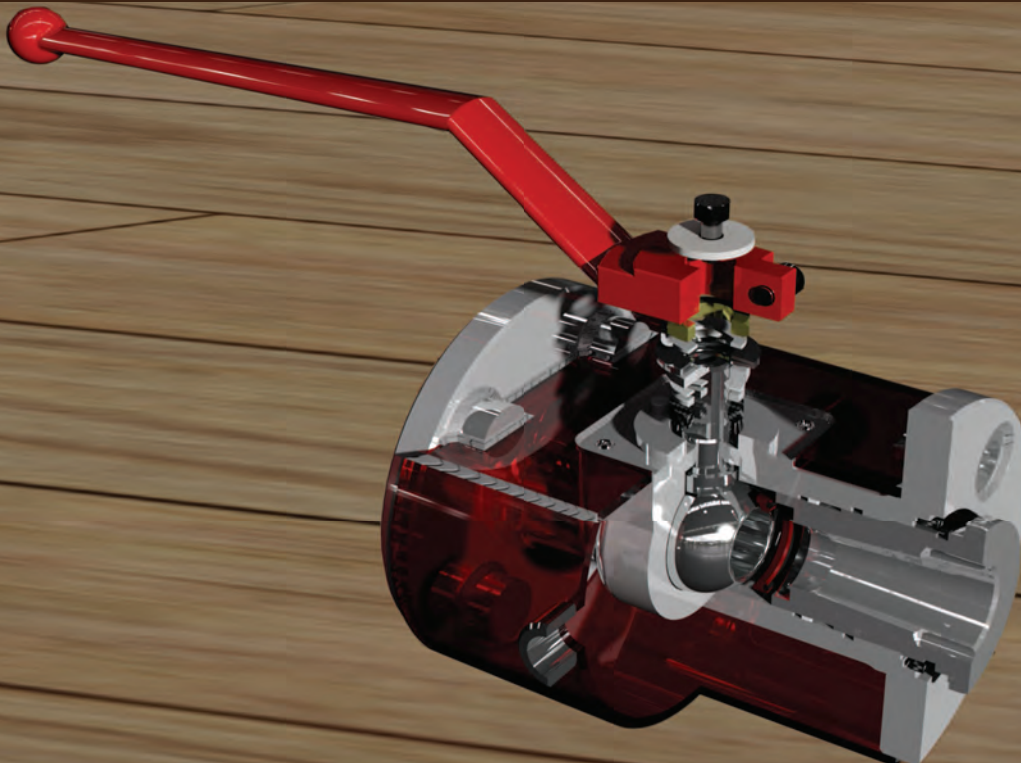


PROJECT NAME:

WESTVACO U.S.A: 2" metal seated reduced port BV for speciality chemicals plant.

SIZE RANGE:

1" -10" (Available in ANSI Class 150 & 300).



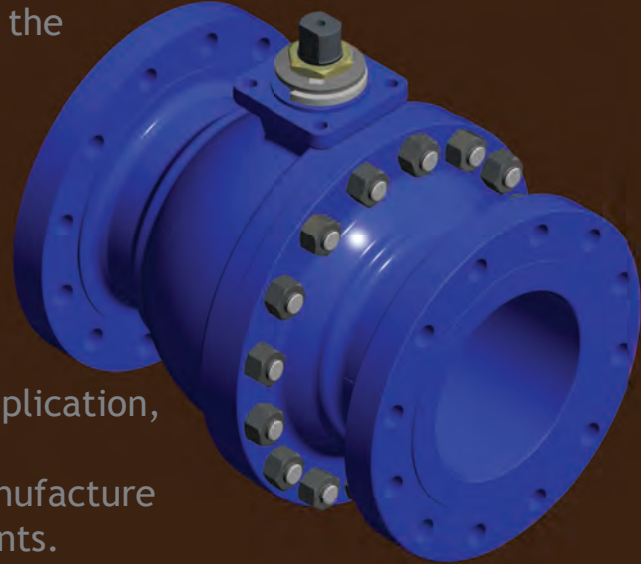
Trunnion Mounted Ball Valve



ANSI Class 150/300 trunnion mounted ball valve with specially designed metal seats. The spring loaded mechanism is totally sealed to avoid process from entering into the chamber and jamming the spring, avoiding clamping of the ball and seats.

DESIGN HIGHLIGHTS:

- ANSI Class 300 metal seated valve.
- Material of construction Titanium Gr XII for autoclave service.
- Ball & seats are treated with Chrome Oxide or Ti Chrome Carbide, depending on the specific application, but not limited to these two treatments.
- Can be custom made from bar allowing us to manufacture the valve to meet customer's specific requirements.
- Expedited deliveries: range from 6 - 16 weeks

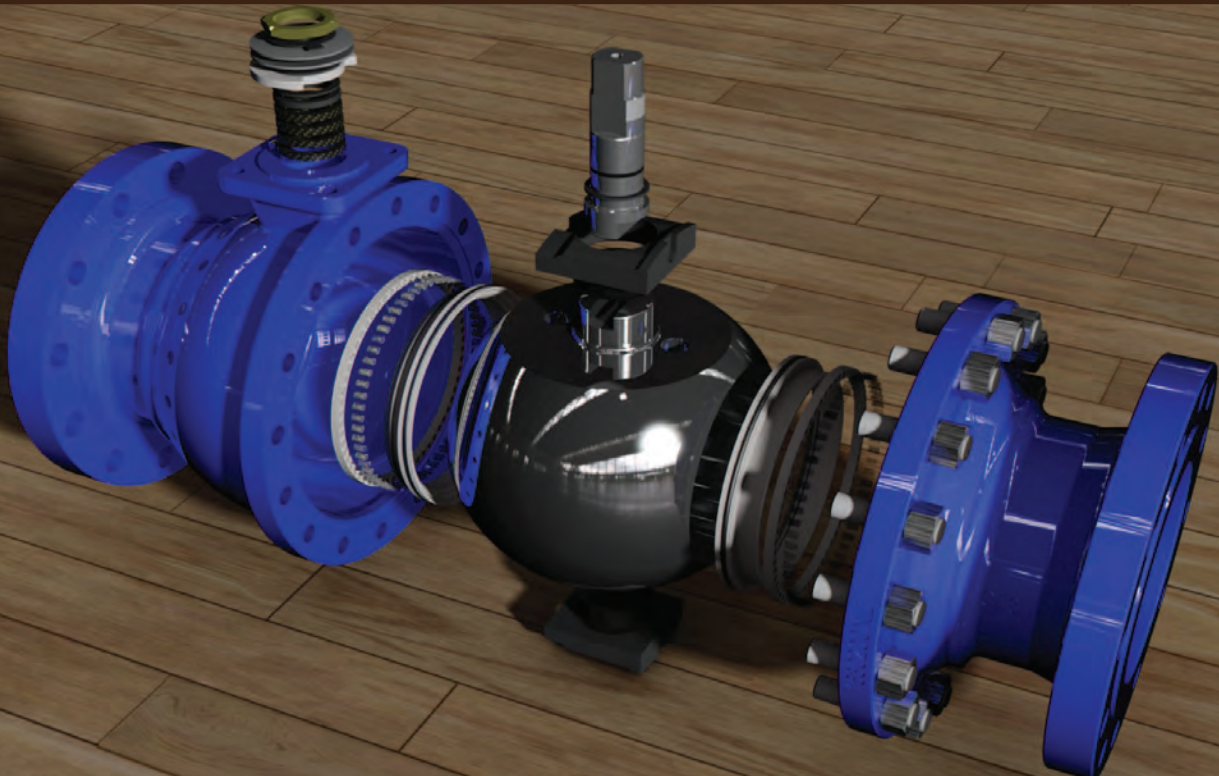


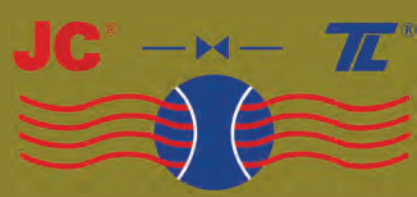
PROJECT NAME:

AEP POWER PLANT USA: 8" & 10" metal seated ball valve with 17-4 PH stem and HT65 infused ball and seats specifically designed for slurry service.

SIZE RANGE:

2" - 24" (Please consult factory for size availability)



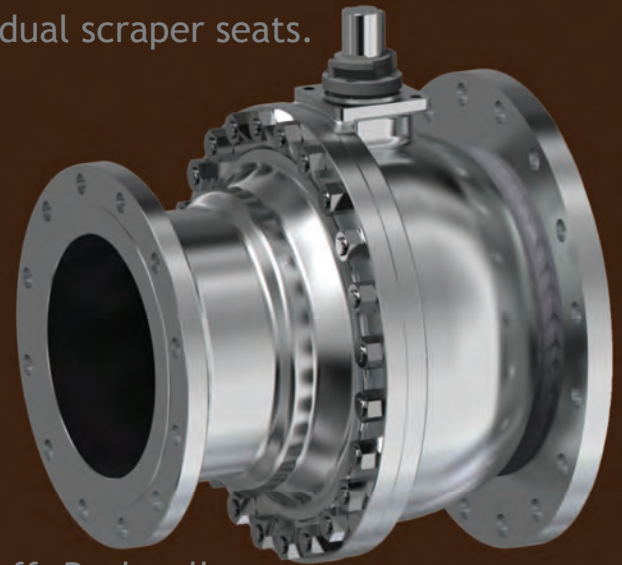


Metal Seated 16"x10"-Reactor Full Bore Ball Valve

A ball valve modified with different flange sizes for inlet and outlet to fit on the bottom of a reactor. Specially design with dual scraper seats.

DESIGN FEATURES:

- Slurry valve designed to fit on the bottom of a reactor.
- Inlet flange is 16", allows the ball to protrude inside the reactor eliminating dead space.
- Helicoil springs which load the metal seats are completely sealed to avoid process from entering in the spring chamber and causing clamping of the seats onto the ball avoiding premature failure.
- Ball & seats are infused with HT-65 for tight shut off, Rockwell 70C surface hardness as well as it's high lubricity prevent process from adhering to ball, maintaining a uniform torque, increasing valve life.
- Size range: inlet flanges from 6" - 30".

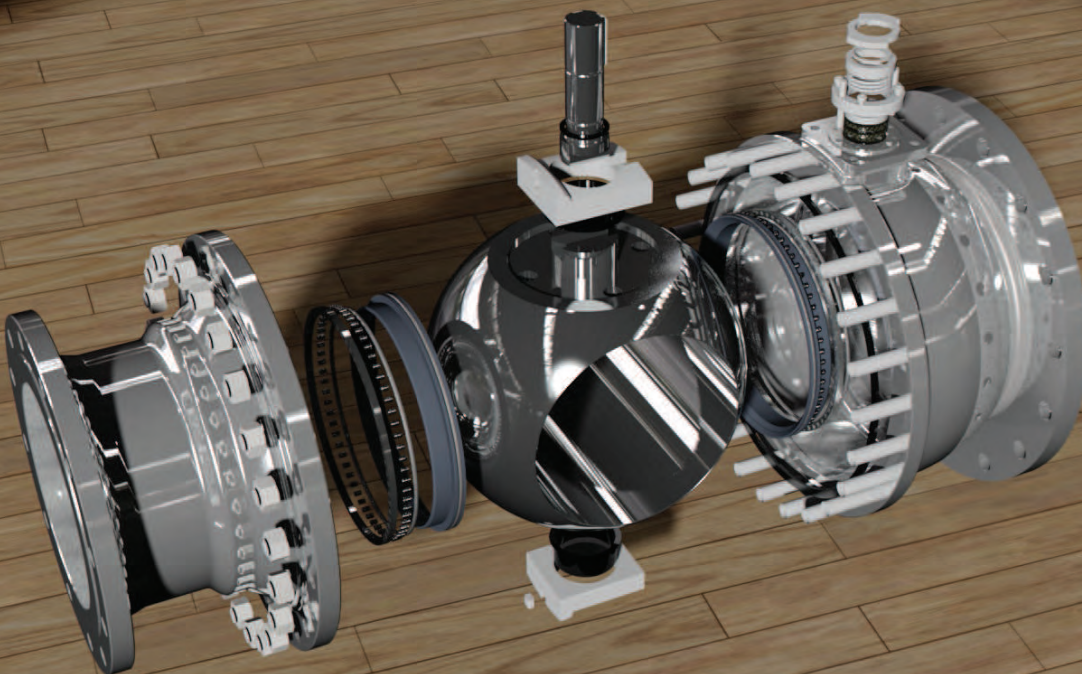


PROJECT NAME:

DuPONT DANISCO U.S.A: Ball valve with slurry design & Nitronic-50 stem for Cellulosic Ethanol plant. Customized with Viton extreme seal.

SIZE RANGE:

2" -24" (Available in ANSI & DIN standard flanges).



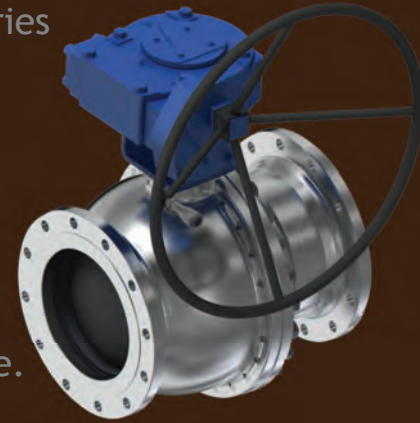
Slurry Valve c/w 17-4PH Stem & Seats and Gear Operator



Gear operated slurry valve designed to handle the most severe slurries which tend to solidify.

DESIGN FEATURES:

- Available in ANSI Class 150, 300 & 600 c/w metal seats.
- Ball & seats are treated with HT-65 process.
- Heat treatment reduces the ball surface porosity to a minimum, resulting in a high lubricious finish preventing process from adhering, causing torque issues and valve failure.
- Optional base material for ball, stem and seats based on pressure and cycle (i.e. 410 SS, 17-4 PH or Duplex stainless steel).
- The slurry option prevents process build up between ball and stem which causes downward load onto the ball and increased torques.
- Unique sealing of the spring chamber prevents clamping of the ball & seats maintaining a constant torque, prolonging valve's cycle life.
- Material may be carbon steel for abrasion or exotic alloys for both abrasion and corrosion.
- Shut off classes: Class IV ~ VI, tight shut off available.

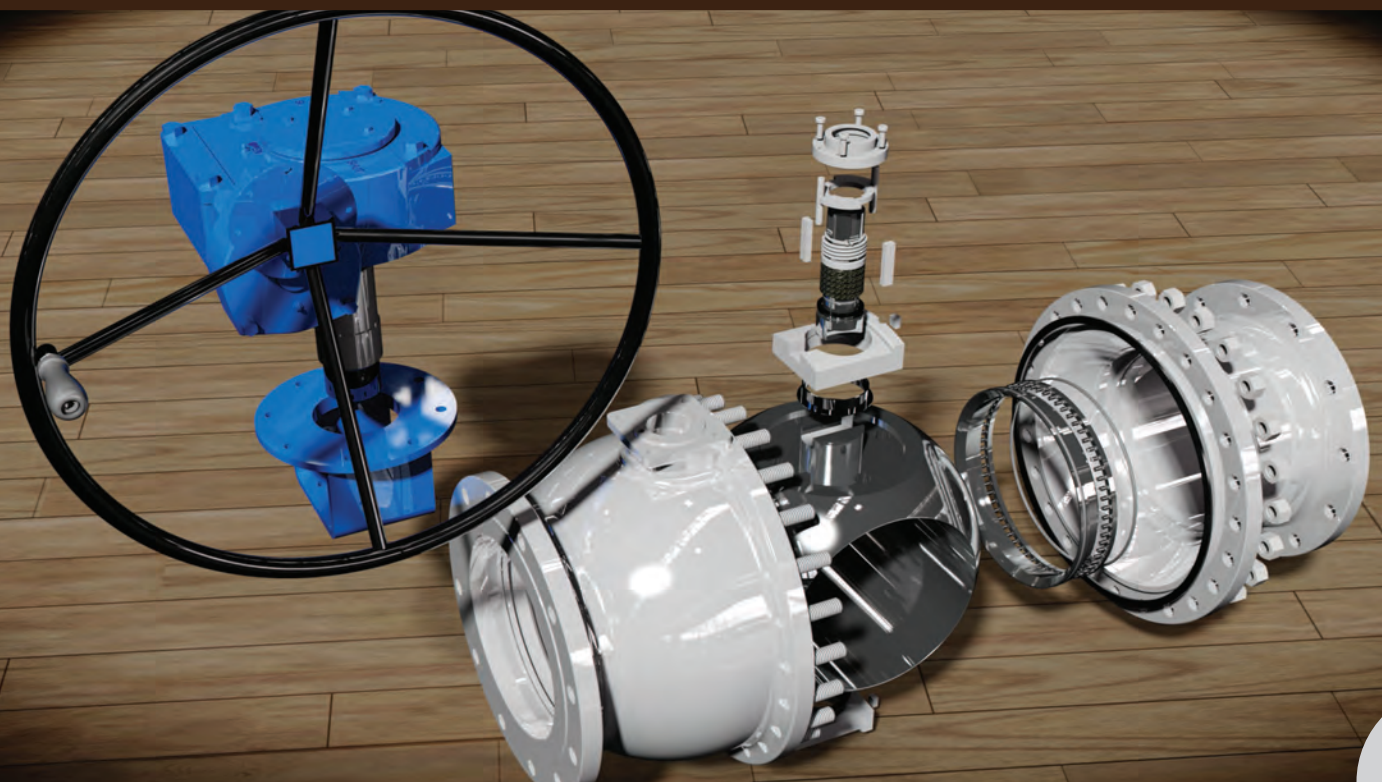


PROJECT NAME:

MONSANTO USA: 12" Fig. 1515IIX metal seated ball valve with 17-4PH stem and HT65 infused ball and seats specifically designed for heavy slurry service.

SIZE RANGE:

1" - 20" (Please consult factory for size availability)





Trueline Valve Corporation | 20675 Boul. Industriel
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