

VS-T Valves General Presentation

Valve Engineering - Valve Manufacturing - Valve Repair - Valve Modification

About us



VS-T Valves is operating in a world-wide niche market and is one of world's important fast track and custom engineered valve manufactures.

With more than 25 years of combined experience VS-T Valves will meet and exceed the most demanding needs of our customers by design and manufacturing valves in 2 to 8 weeks delivery in according to our customer specification

Our clients and end-users are particularly operating in the market segments oil & gas, chemical and petrochemical, both on-shore and off-shore.

In 2021 VS-T Valves opened a brand new “state of the art” 3500 M2 workshop, and 450M2 Test Laboratory based in Roosendaal, twenty minutes drive from Antwerp and Rotterdam.

VS-T Valves in house activities:

- **Valve Engineering**
- **Valve Manufacturing**
- **Valve Repair**
- **Valve Upgrade and Modification**
- **Valve Testing**

Ultra low Emission Technology

Our Location in the Netherlands



30 minutes from Rotterdam, Antwerp, Moerdijk

Ultra low Emission Technology

VS-T Valves Accreditation System



VS-T Valves has an unrivalled quality control system in place to ensure that all our products meet the highest international standards. Our commitment to quality is one of the main reasons for our success in the industry and our accreditations are the ultimate scorecards.

- **API Monogram (API 6A, API 6D, API 6 DSS)**
- NEN-EN-ISO-9001-2015
- HSQE Management system (VCA)
- PED Directive 2014/68/EU annex III module H
- RE-stamping
- T-0103 (repair and recertification)
- Level 1 and 2 Magnetic penetrant examination
- Level 1 and 2 Liquid penetrant examination
- In house welding capabilities



American Petroleum Institute

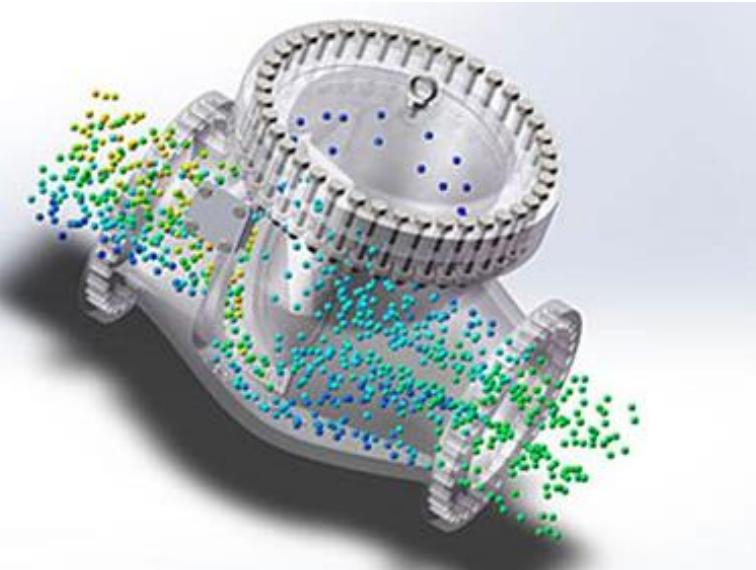
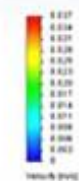
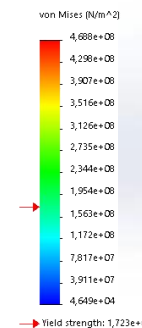
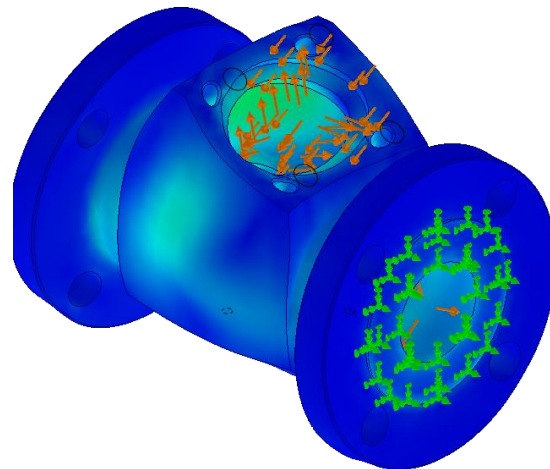
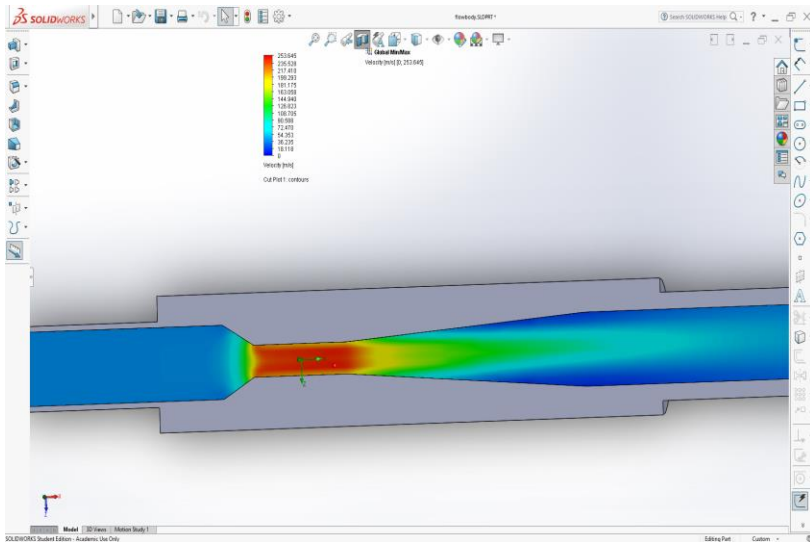
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In House Engineering

Engineering solutions for valve applications are an important part of the company strategy. With our highly qualified technical engineers and more than 30 years of experience VS-T Valves offers the best available technical solutions for our customers.

With our Solid Works 3D CAD-software we can design, calculate and virtually test any custom valve application Such as Flow, strength and CV calculations.

This enables our engineers to simulate the flow conditions in the client's system in order to design very precisely, and optimizes the performance of the valve in the system.



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In House Valve Testing Department

VS-T Valves will guarantee that every single product undergoes extensive testing conform international procedures and the requirements of our customers before being dispatched for delivery.

In house testing capabilities for:

Hydro
HP Gas
Cryogenic
High temperature
Helium
Hydrogen
Mechanical endurance testing



Sizes from 1/4" up to 36" and in pressure ratings of class 150 up to 30000 PSI. Temperature rating from minus 196 °C up to 1500°C.

VS-T also has the resources to carry out PMI (Positive Material Identification), LDE (Liquid Dye-penetrant Examination), MPE (Magnetic examination coating thickness measurements and Surface Roughness (Ra-value) measurements.

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Hydro testing upto 1500 Bar



The tilting clamping system combines the positive effects. It enables easy clamping and testing in any position between 0 - 90° to prove the integrity in the same position the valve is supposed to perform in practice.



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HP Gas Testing upto 2150 Bar

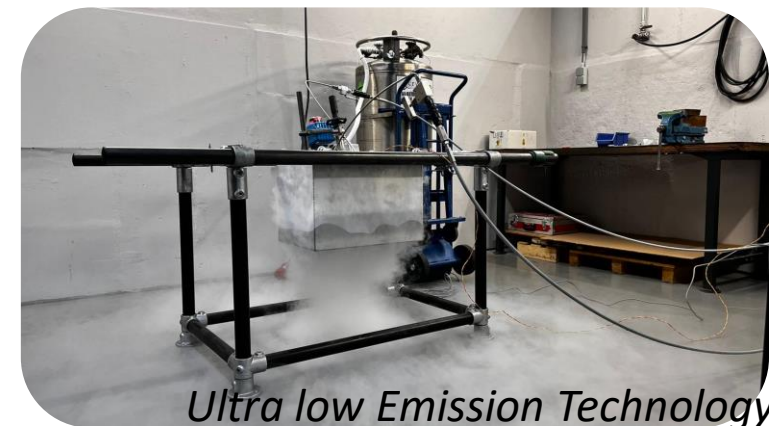


In-House Cryogenic and FE Testing

Valves can be tested at any controlled temperature down to -196°C (boiling-point of liquid nitrogen). The parameters we monitor include the measurement of leakage for seats and body, operating torques, and cycling under typical low temperature or cryogenic conditions.

Tests are carried out in accordance with recognized international standards or can be designed to our customer's own specifications to ensure application suitability.

Examples of Valve Test standards for Low Temperature or Cryogenic Temperatures are: ISO 28921-1, ISO 28921-2, BS 6364, Shell MESC SPE 77/200 and SPE 77/306, but can also be customized to meet specific customer's specifications.



In-House Cryogenic Testing



In-House Cryogenic Testing



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In-House Cryogenic Testing



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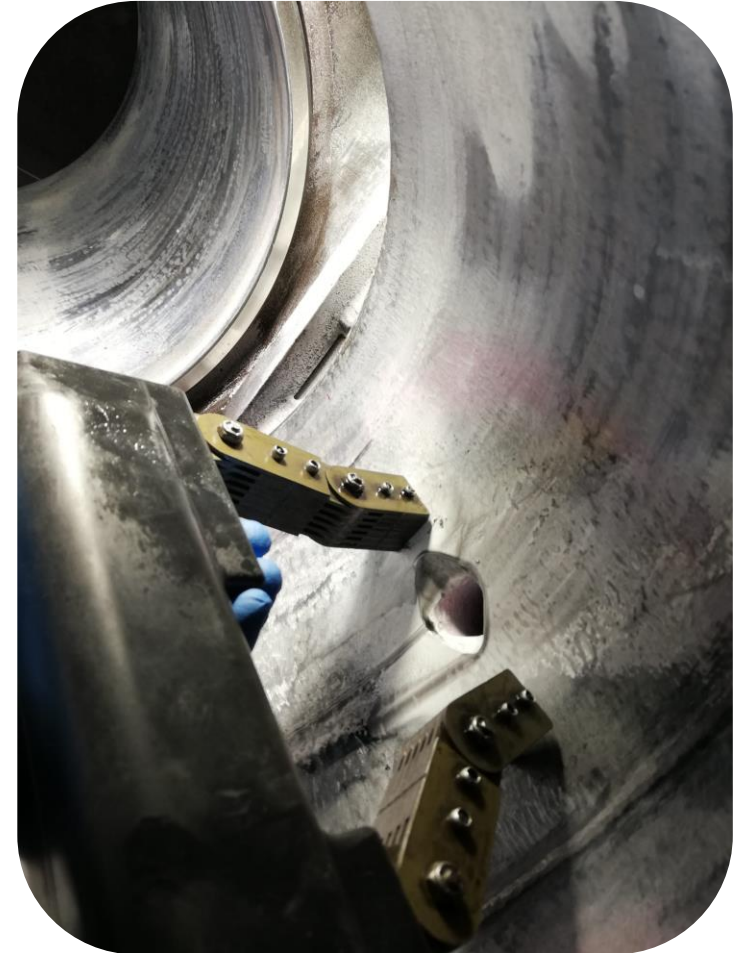
In-House Helium Leak detection



PSV Overhaul + Testing in according to T-0103



In House LPE / MPE Qualified Inspection level 1 & 2



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VALVE DESIGN AND MANUFACTURING
“6-8 weeks delivery”

API MONOGRAM CERTIFIED
API 6A-API 6D-API 6DSS

Large variety materials available

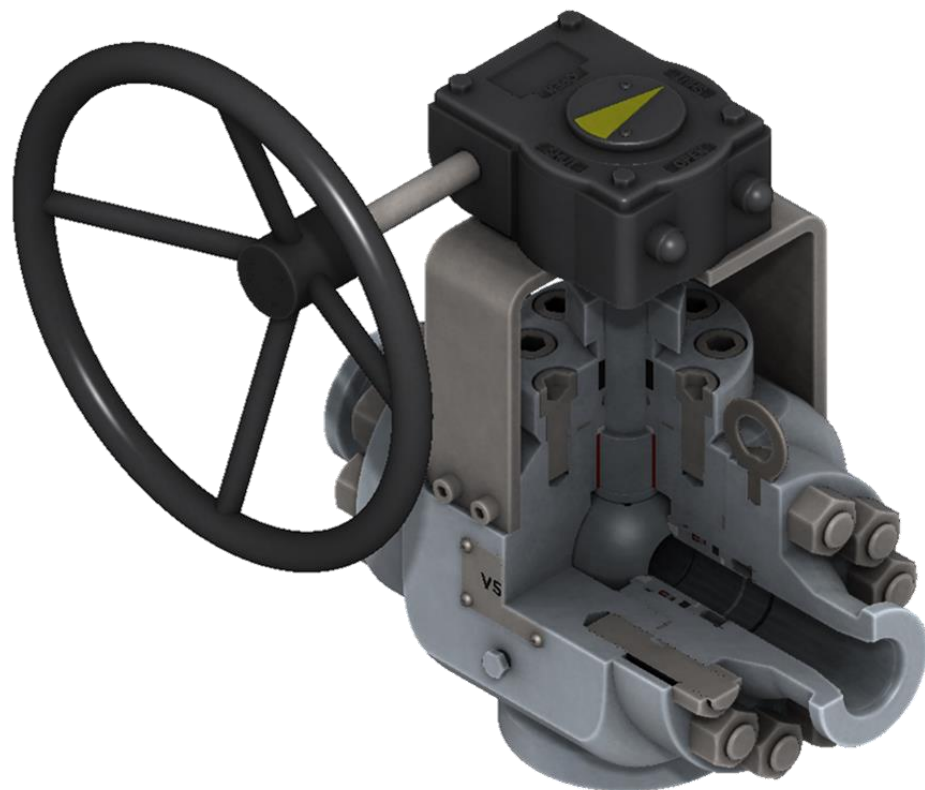
Our valves can be offered in special materials and standard materials. Next to stainless and carbon steel, we manufacture valves in special materials such as titanium, nickel alloys, HASTELLOY^{®*}, INCOLOY[®], MONEL[®], Alloy 20, super-duplex, corrosion resistant alloys and urea grade materials.

Sizes

From ½" Up till 24"

Pressure Classes

Up to 30.000 PSI



TRM BALL VALVES

Sizes inch (DN) 1/2" (15) - 16" (450)

ANSI Class (LBS) 150 - 4500

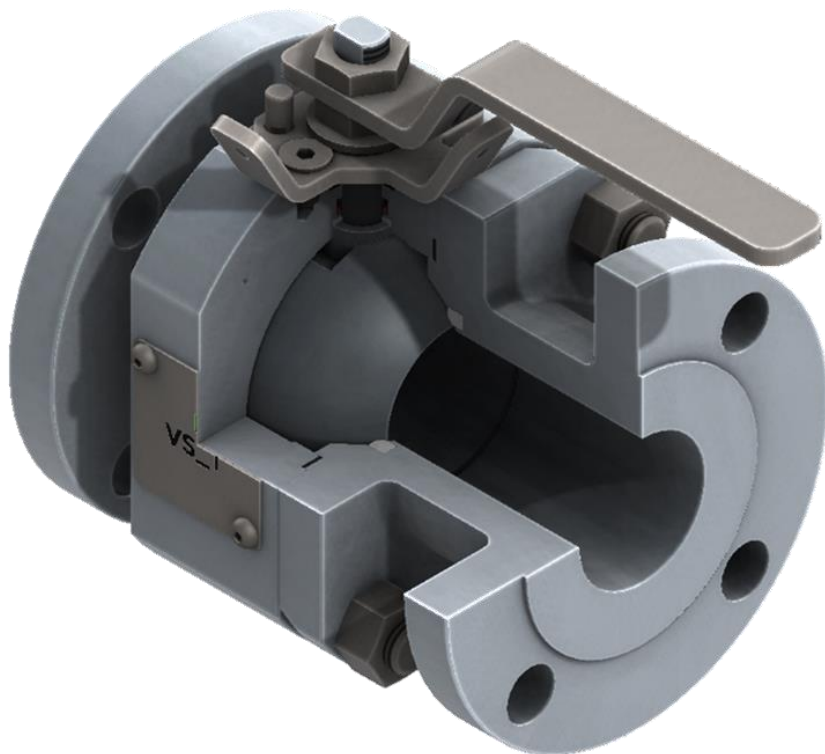
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ One-piece Body, Two-piece, Three-piece split body & more.



FLOATING BALL VALVES

Sizes inch (DN) 1/2" (15) - 8" (450)

ANSI Class (LBS) 150 - 4500

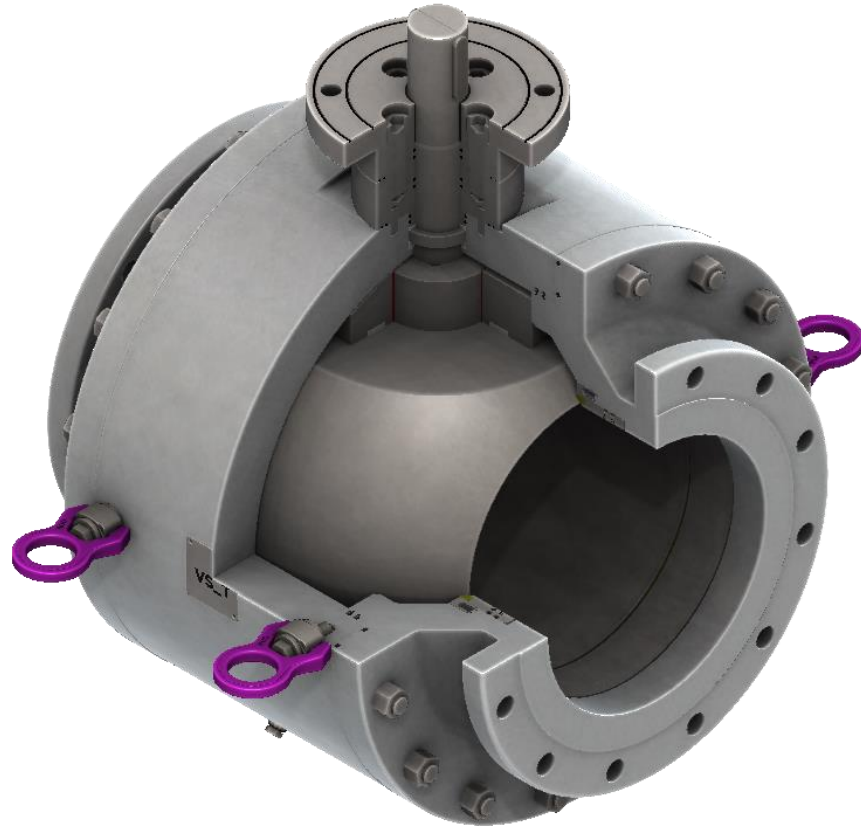
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ One-piece Body
- ▶ Two-piece split Body
- ▶ Three-piece split Body



API 6DSS (SubSea) BALL VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

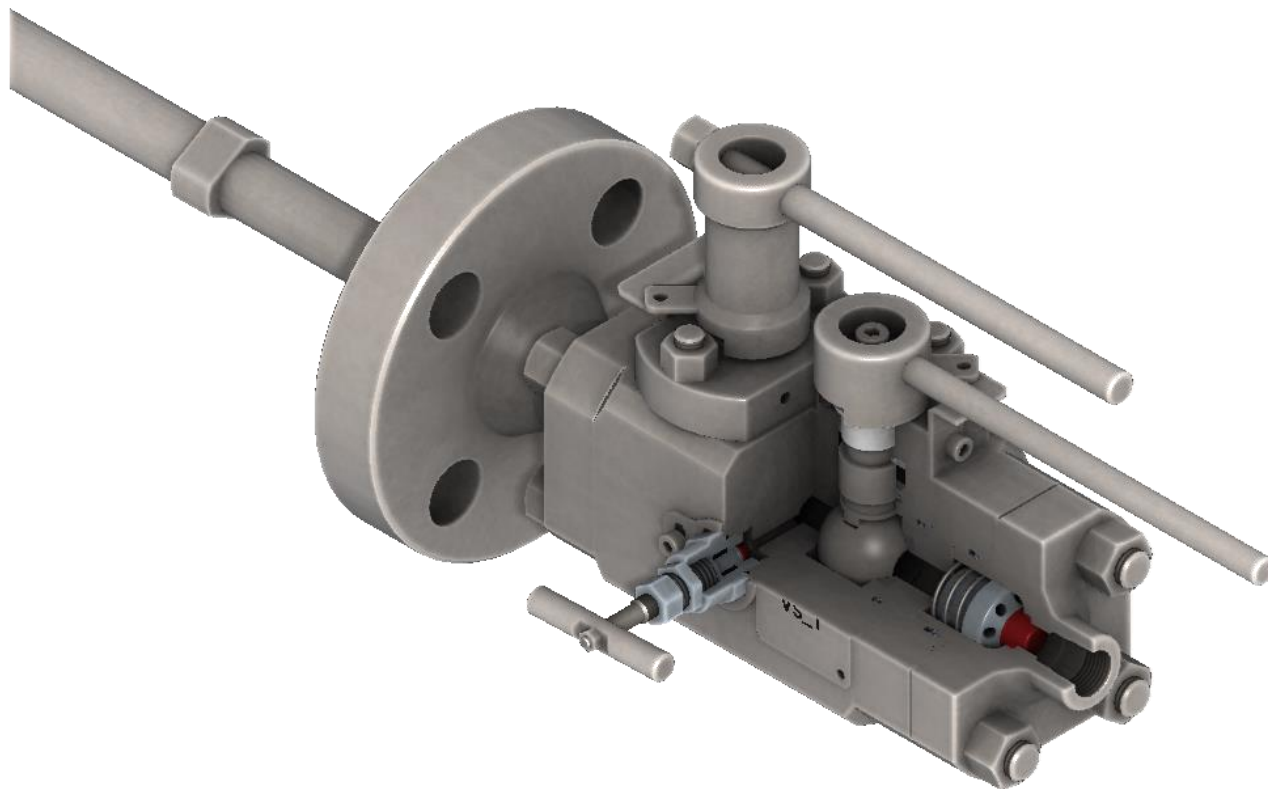
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ One-piece Body
- ▶ Two-piece split Body
- ▶ Three-piece split Body



INJECTION OR SAMPLE DBB VALVES

Sizes inch from ¼" (DN5 or customized bore) up to P&I requirements.

ANSI Class (LBS) 150 - up to P&I requirements.

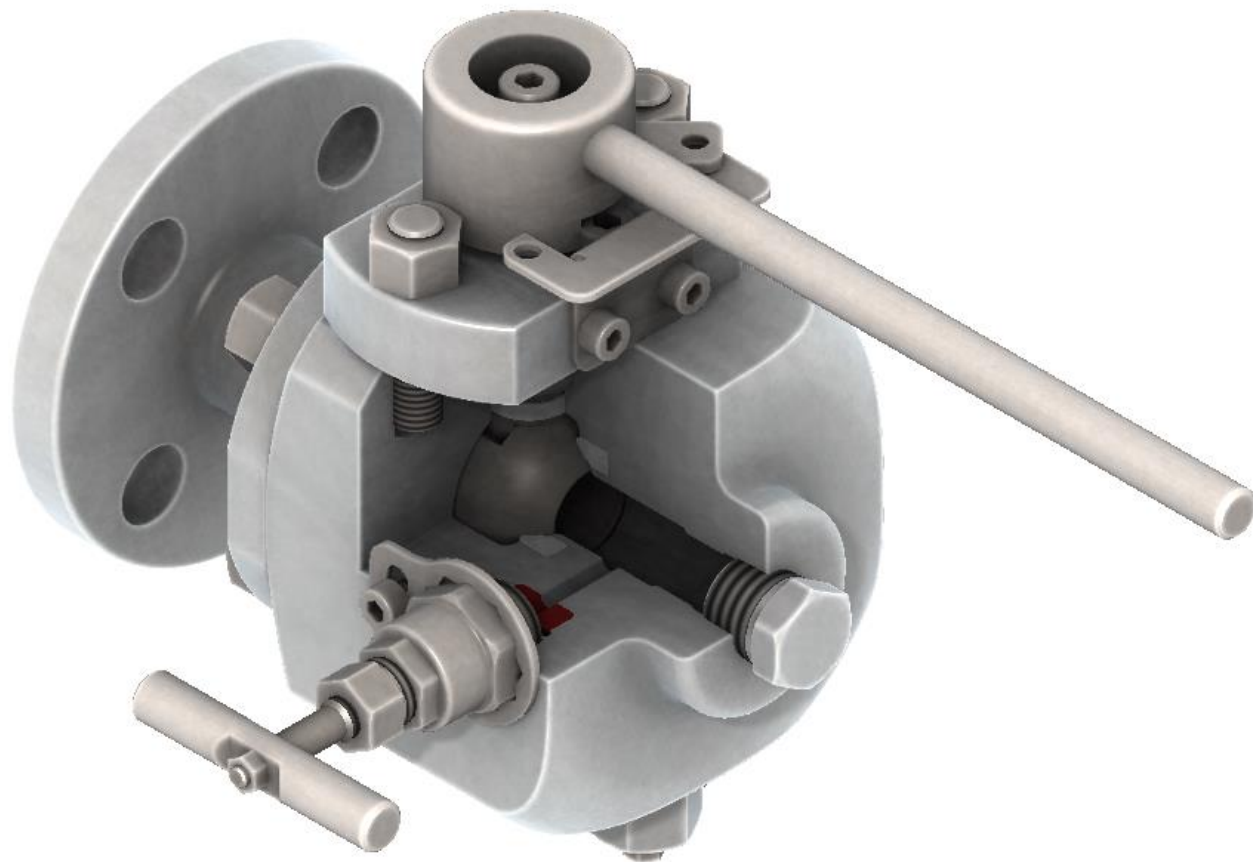
API Rating (PSI) 3000 - up to P&I requirements.

DIN Rating (PN) 10 - 400.

Temperatures from -196° C up to +850°C.

Construction

- ▶ All type of ball designs as TRM, Floating, Top entry & more.
- ▶ Input / output check valves possible.
- ▶ Customized bleed valves (STD as Needle).
- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ Cover/ Body design configurable.



INJECTION OR SAMPLE SBB VALVES

Sizes inch from ¼" (DN5 or customized bore) up to P&I requirements.

ANSI Class (LBS) 150 - up to P&I requirements.

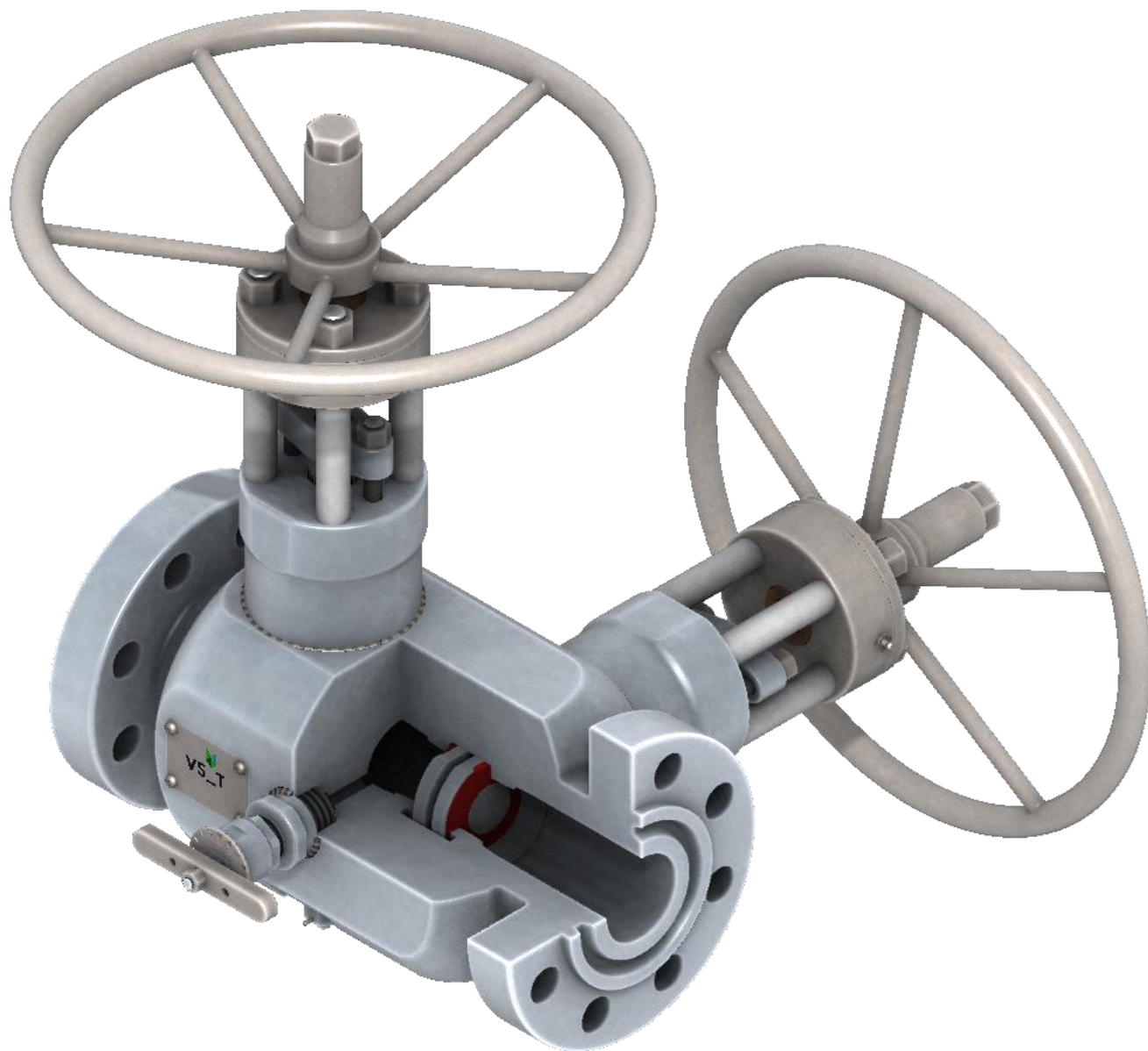
API Rating (PSI) 3000 - up to P&I requirements.

DIN Rating (PN) 10 - 400.

Temperatures from -196° C up to +850°C.

Construction

- ▶ All type of ball designs as TRM, Floating, Top entry & more.
- ▶ Input / output check valves possible.
- ▶ Customized bleed valves (STD as Needle).
- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ Cover/ Body configurations configurable.



DBB GATE VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

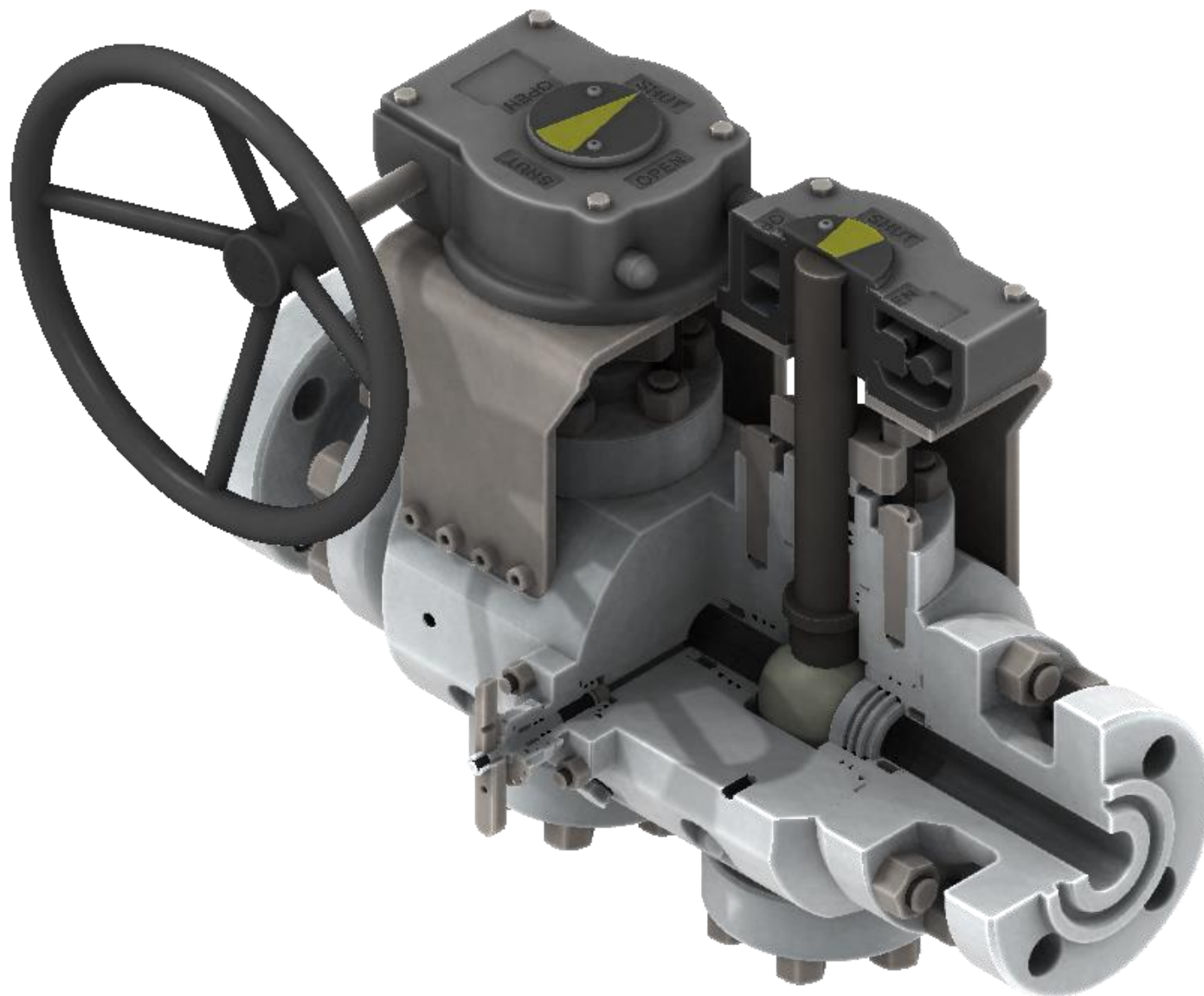
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, TC Coating, STELLITE6[®], ULTIMET[®] seats & more.
- ▶ Wedge, Slab, Double Expansion Gate & more.
- ▶ Cartridge, Flanged, Hub-type & more.



DBB BALL VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

API Rating (PSI) 3000 - 15.000

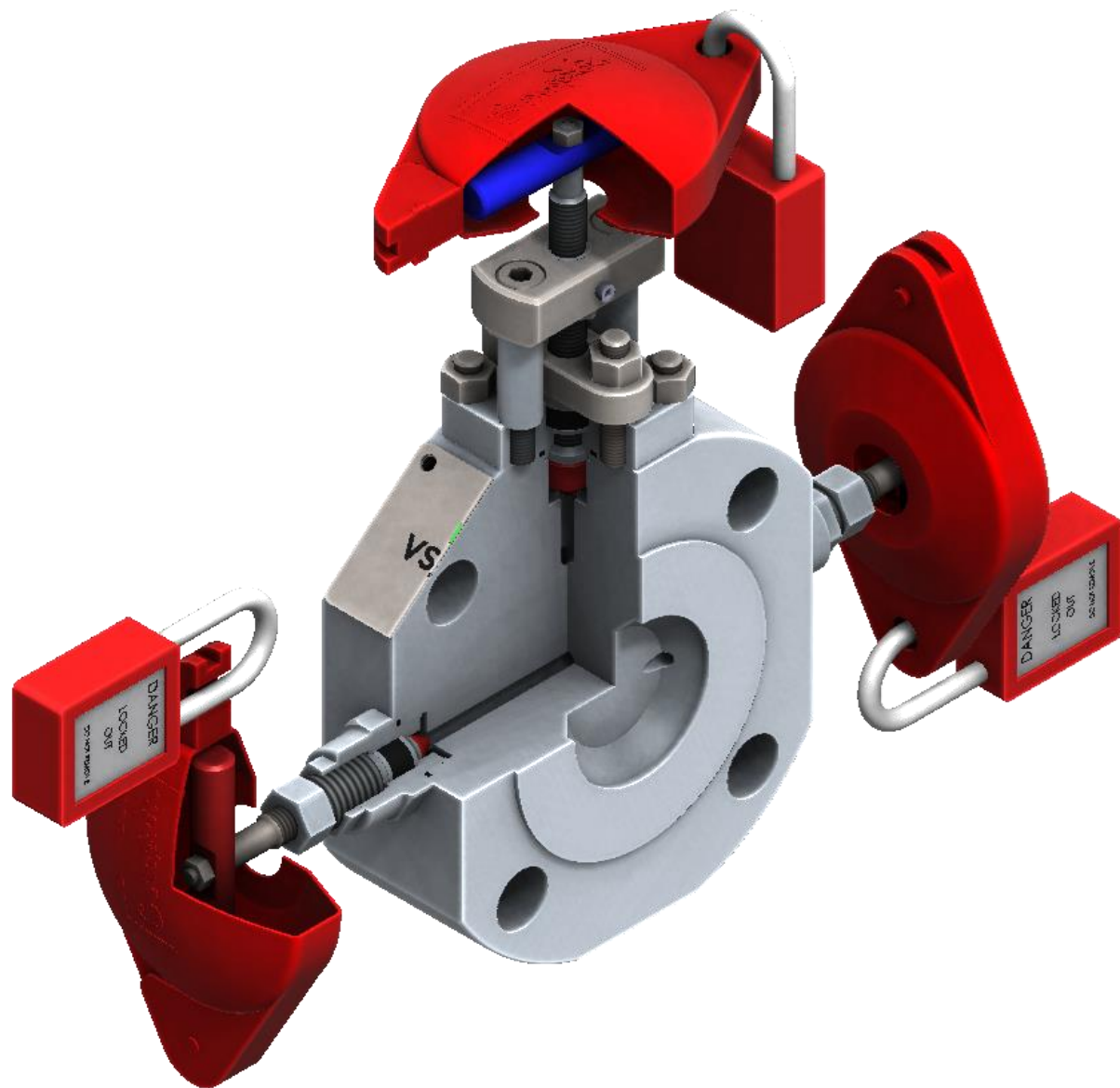
DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ All type of ball designs as TRM, Floating, Top entry & more.
- ▶ Input / output check valves possible.
- ▶ Customized bleed valves (STD as Needle).
- ▶ Soft, Metal, Tungsten Carbide Coating seats & more.
- ▶ Cover/ Body design configurable.

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DBB MONOFLANGES VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

API Rating (PSI) 3000 - 15.000

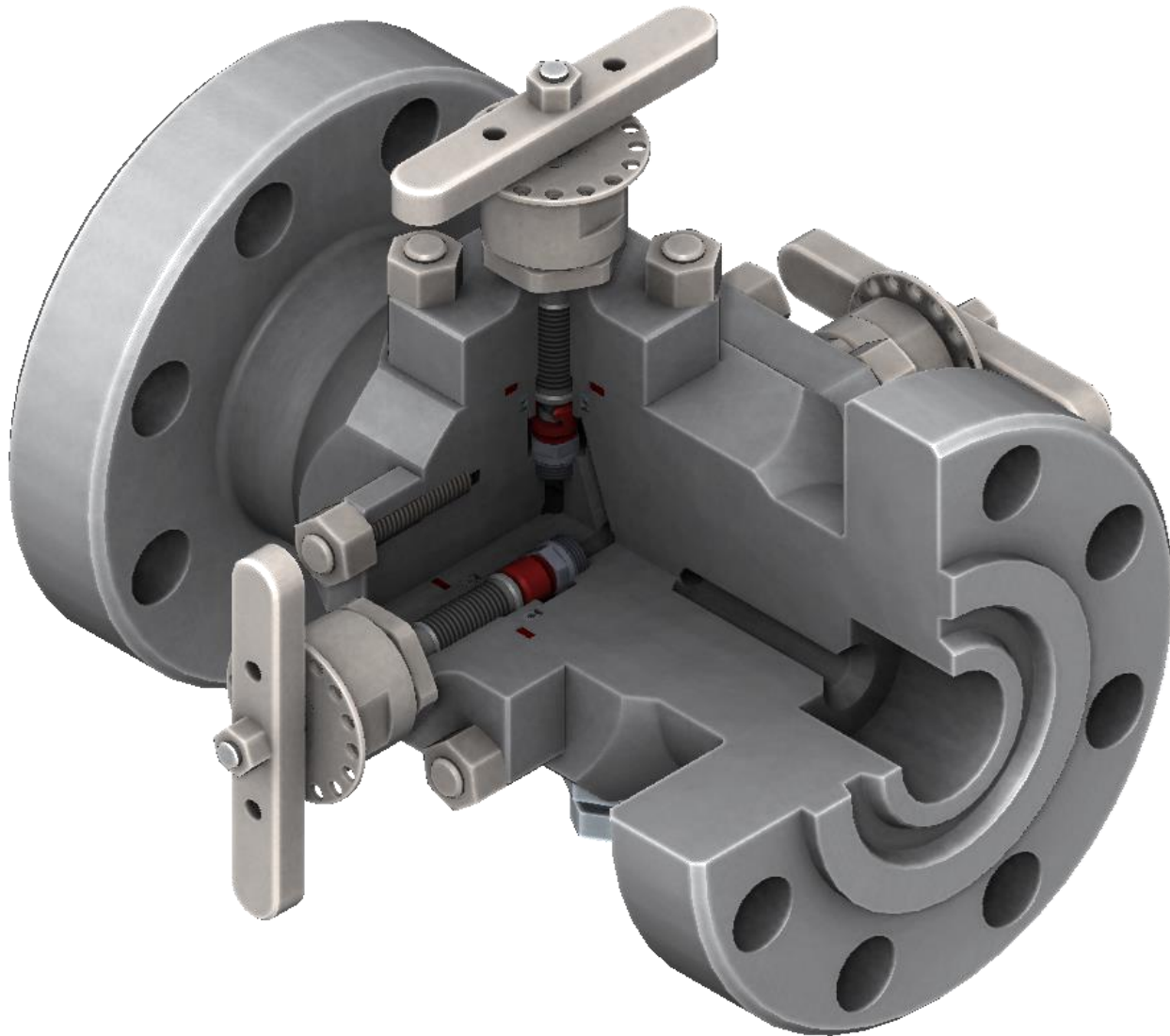
DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ All type of disc designs (STD as Needle) & more.
- ▶ Customized bleed valves (STD as Needle).
- ▶ Metal, TC Coating, STELLITE6[®], ULTIMET[®] seats & more.

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DBB NEEDLE VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

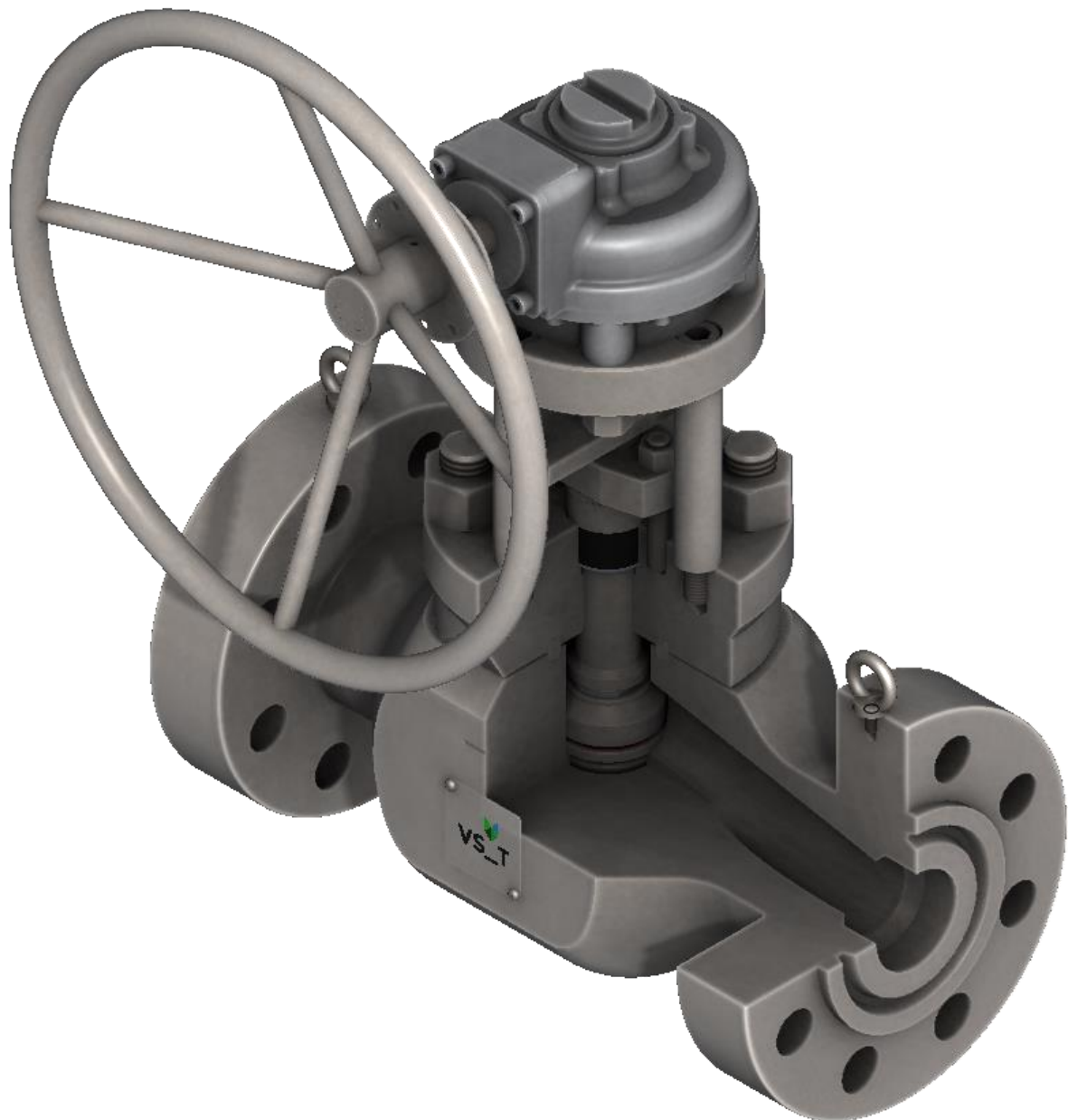
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ All type of disc designs (STD as Needle) & more.
- ▶ Customized bleed valves (STD as Needle).
- ▶ Metal, TC Coating, STELLITE6®, ULTIMET® seats & more.



GLOBE VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

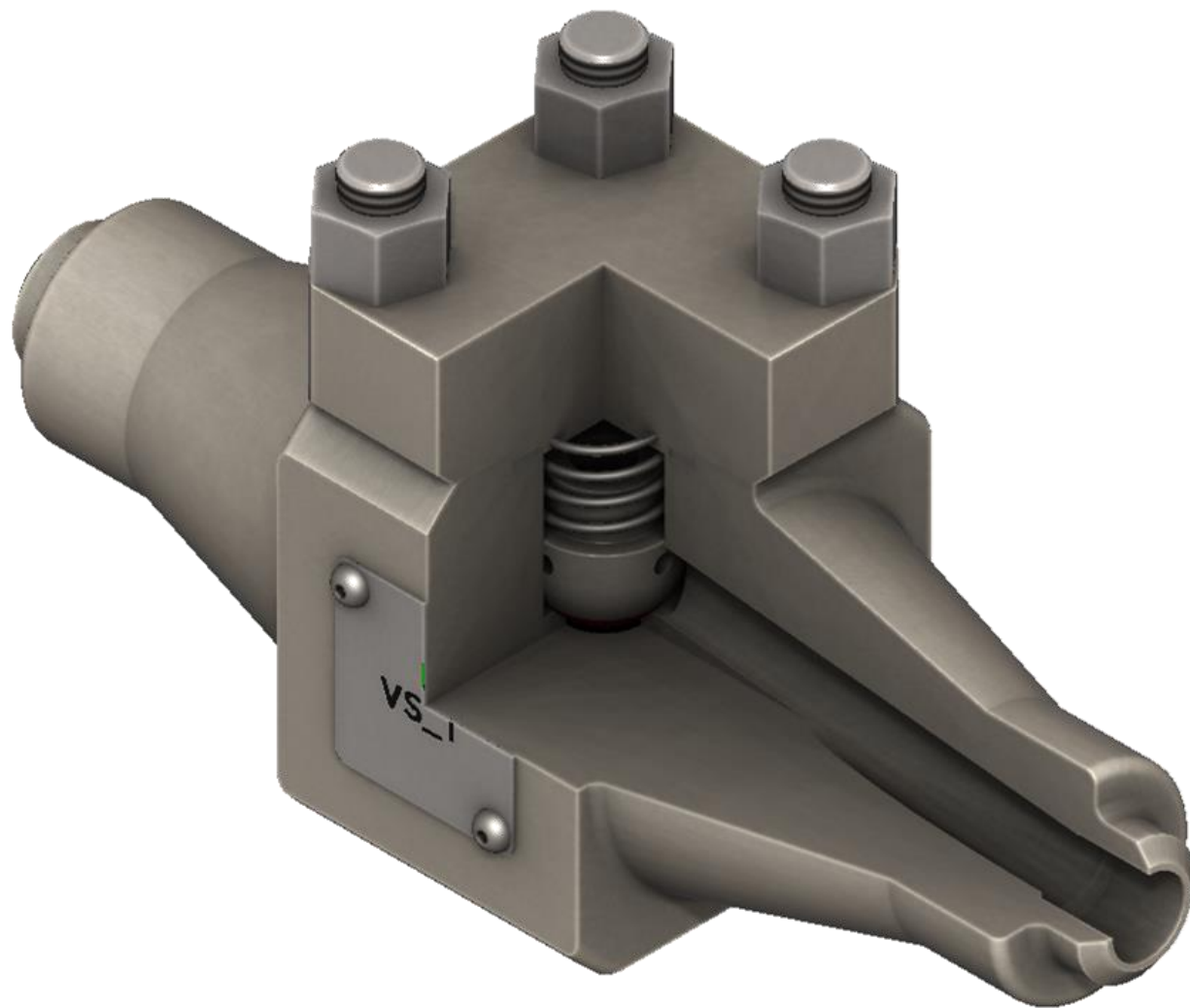
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, TC Coating, STELLITE6[®], ULTIMET[®] seats & more.
- ▶ Anti-rotation disc
- ▶ Renewable or integral seat.
- ▶ Y-type, STD horizontal & more.
- ▶ Cartridge, Flanged, Wafer, Hub-type & more.



PISTON CHECK VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

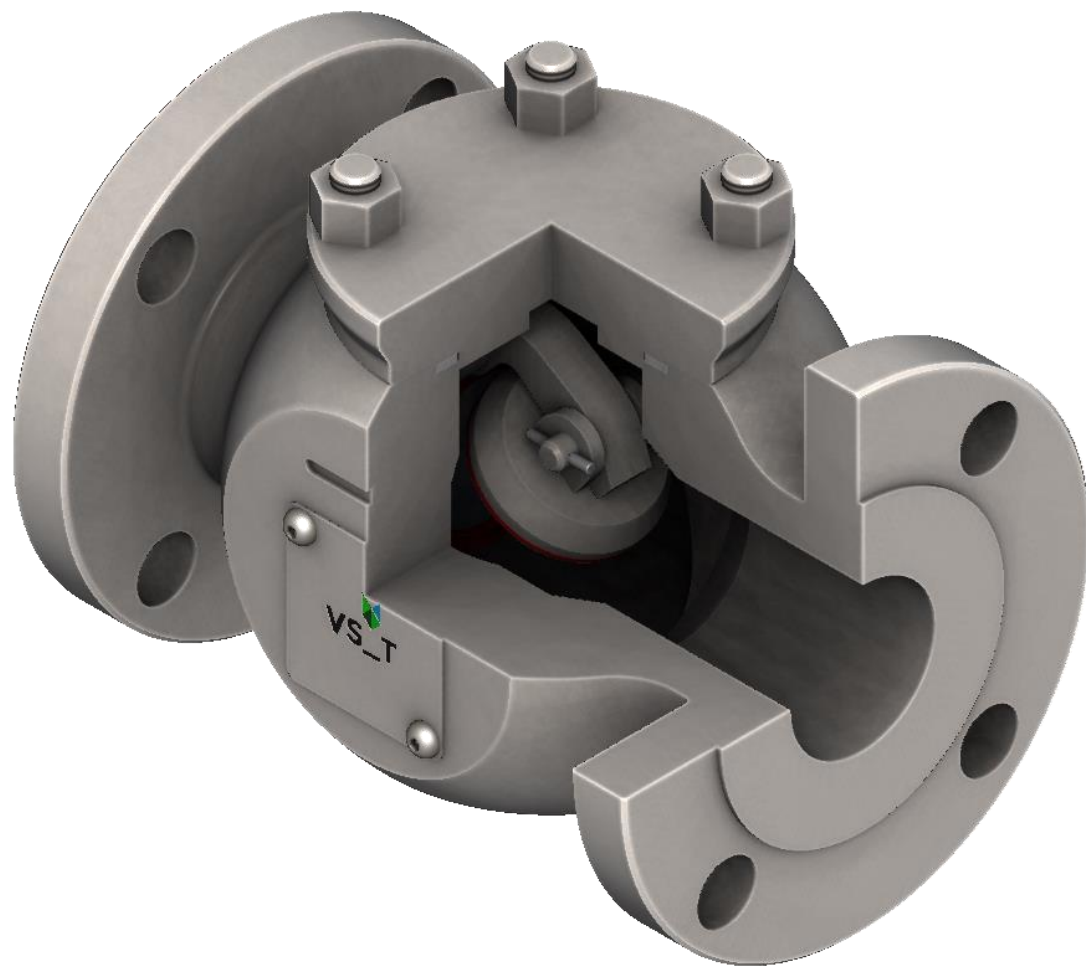
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, STELLITE6® , ULTIMET® seats & more.
- ▶ Renewable or integral seat.
- ▶ Y-type, STD horizontal & more.
- ▶ Spring loaded / free piston, ball & more.



SWING CHECK VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

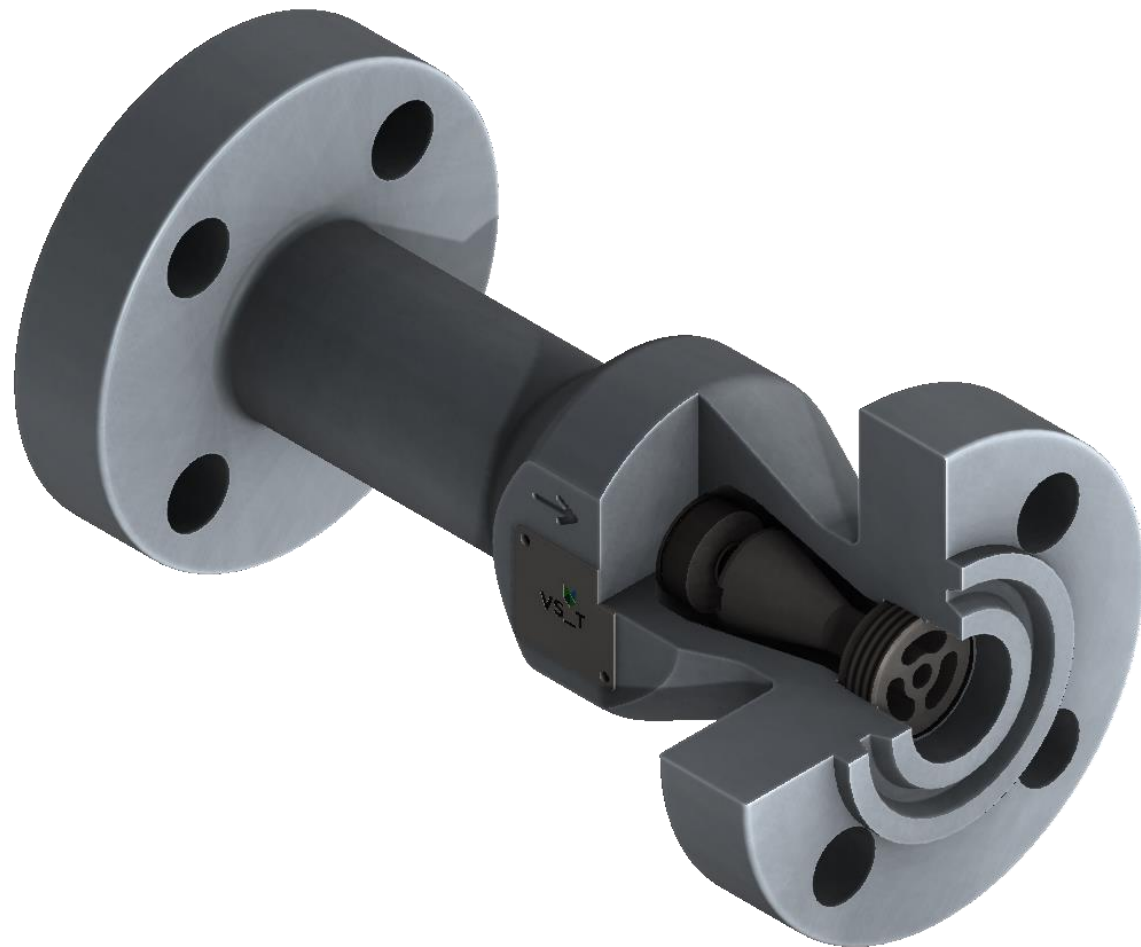
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, STELLITE6[®], ULTIMET[®] seats & more.
- ▶ Renewable or integral seat.
- ▶ Standard disc, LP balanced & more.



AXIAL FLOW CHECK VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, STELLITE6[®], ULTIMET[®] seats & more.
- ▶ Renewable or integral seat.
- ▶ Standard disc, LP balanced & more.



DUAL PLATE CHECK VALVES

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

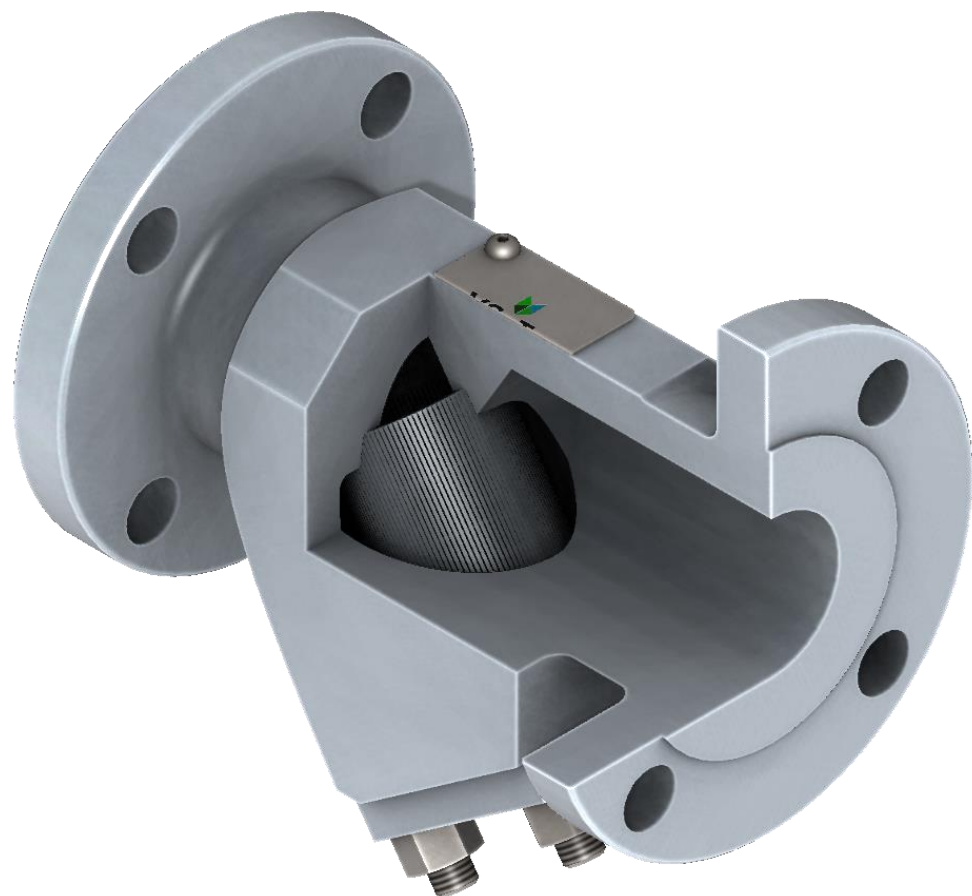
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Metal, STELLITE6[®], ULTIMET[®] seats & more.
- ▶ Renewable or integral seat.
- ▶ Spring loaded discs.
- ▶ Wafer, Lugged, Flanged & more.



STRAINERS

Sizes inch (DN) 1/2" (15) - 18" (450)

ANSI Class (LBS) 150 - 4500

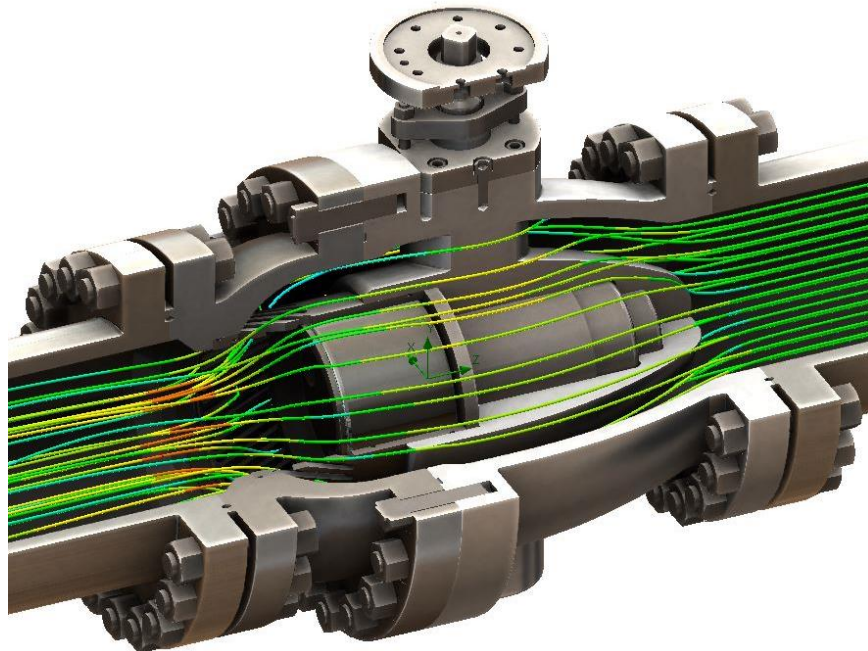
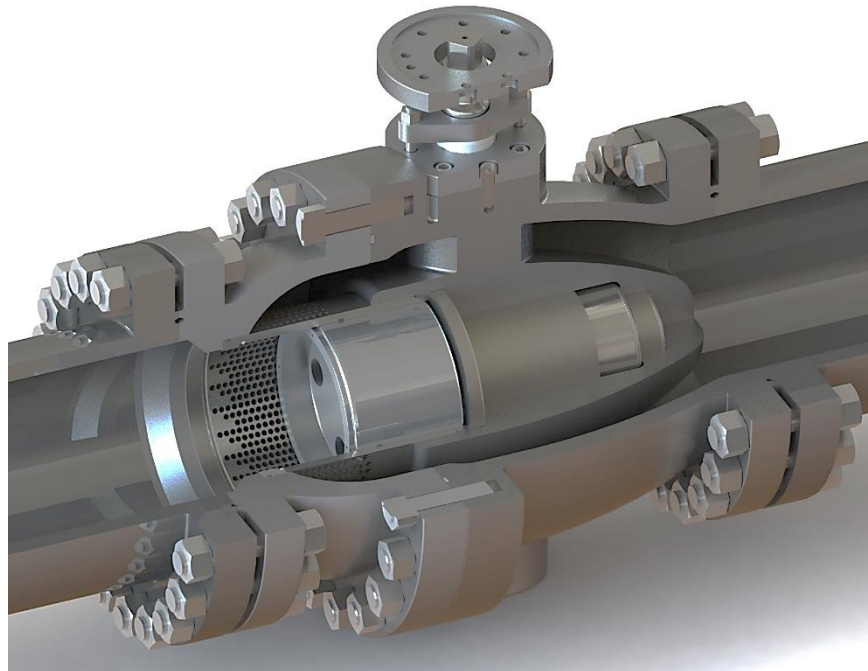
API Rating (PSI) 3000 - 15.000

DIN Rating (PN) 10 - 400

Temperatures from -196°C up to +850°C

Construction

- ▶ Customizable Sieve, Y-angle & more
- ▶ Wafer, Lugged, Flanged & more.

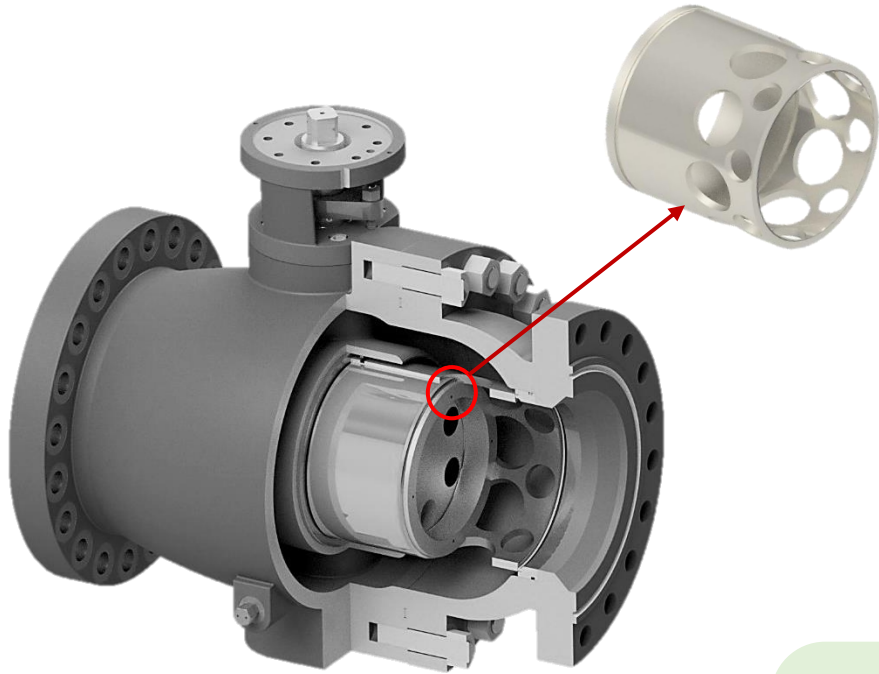


RZD – Axial Flow valve Axial Series Pressure Balance for Streamlined Flow applications

Axial Flow Control / Isolation Valves. (API6A, API6D-Mokveld equivalent): Oil and Gas production Injection / Deceleration, Surge relief – Separation / no blow down, Hydrocarbon/Natural Gas multiphase fluids, Safety Shut down system (SSD), Over Pressure Protection (HIPPS-2003)

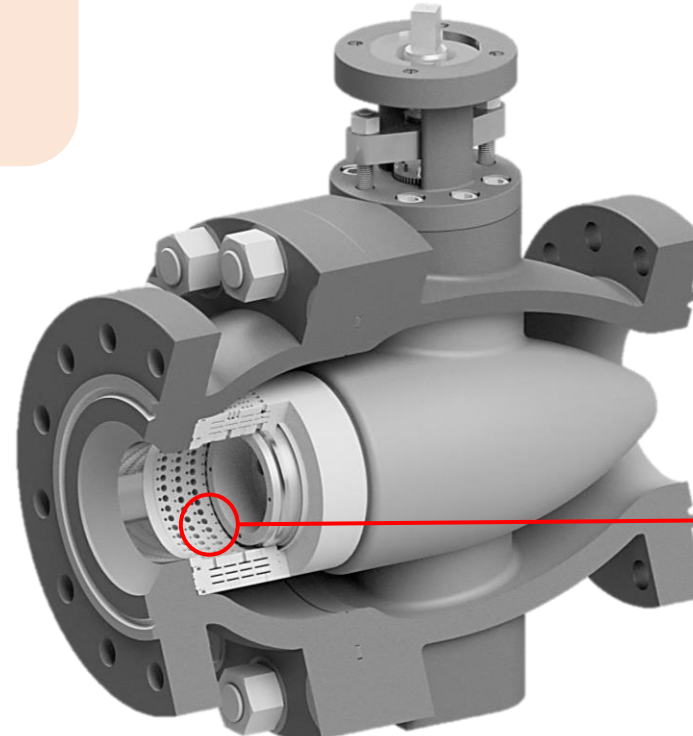
Axial Isolation Valve

Axial Control Valves have been designed in accordance with ASME B16.34 with face to face dimensions based upon API6D allowing interchangeability with other valve types (Ball, Gate Globe).
Fire safe sealing conducted in compliance with API 6FA & ISO 10497



Axial Control Valve

Axial Control Valves have been designed in accordance with ASME B16.34 with face to face dimensions based upon ASME B16.10 allowing interchangeability with other valve types (Control Ball, Control Globe, Butterfly valve).



Customizable Single & Multi-Stage Trim

- Compressible & Incompressible Media
- Anti-Cavitation
- Noise Attenuation
- High pressure drop



Selection of single-stage trims
Suitable for low to moderate pressure drops offering - dependent on type selection - very high capacity and considerable noise abatement



Selection of multi-stage gas trims
Ultra-low noise trims specifically designed for moderate to high pressure-drop gas applications.



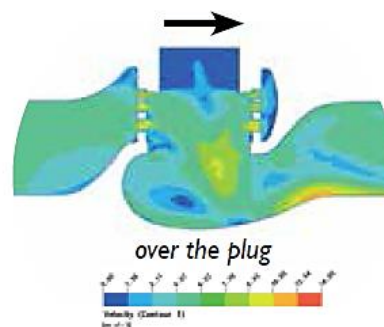
Selection of multi-stage liquid trims
Designed to avoid cavitation at moderate to high pressure-drop liquid applications. Suitable for two-phase applications as well.



Axial flow control valve

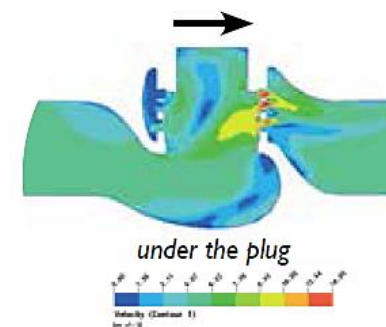
Axial SERIES

Surge relief And Compressor
Recycle Solution



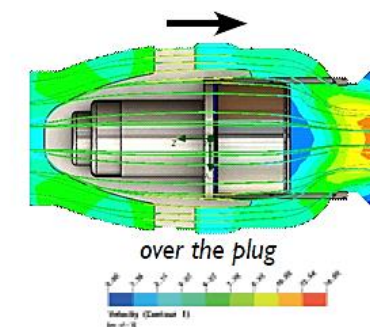
Conventional Globe Valve

Turbulence and high velocity at outlet wall give risk of vibration induced failures.



Conventional Globe Valve

Preferential flow deteriorates trim performance and leads to unbalanced trim forces.



Axial Control Valve

Axial flow and source treatment by Cage Velocity Management are the key to reliability.

Axial Flow Control Valves



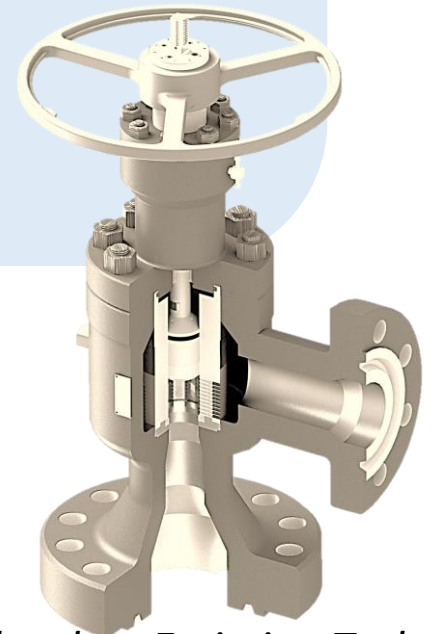
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CHV – Choke Valve
ANGLE SERIES

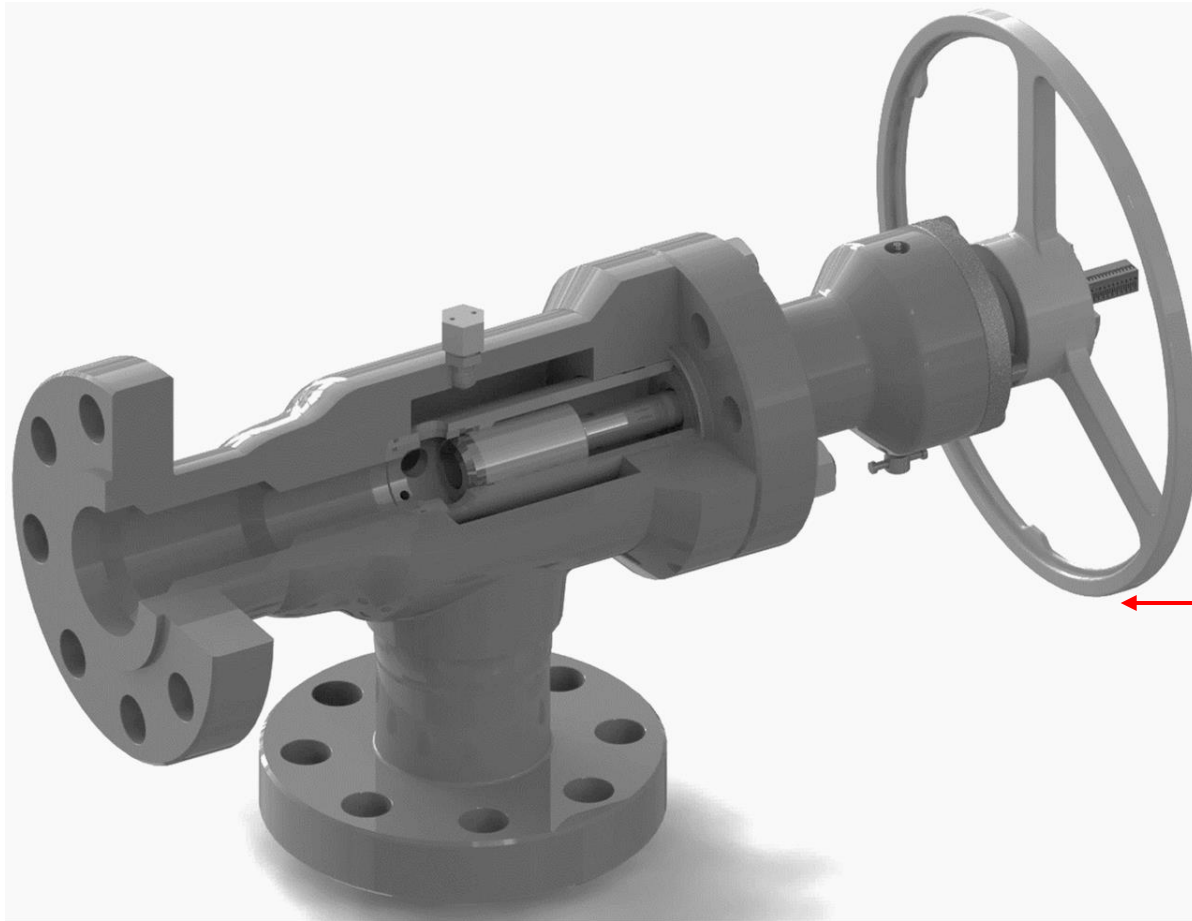
Pressure Balance
for common
High pressure applications



Choke Automated valves



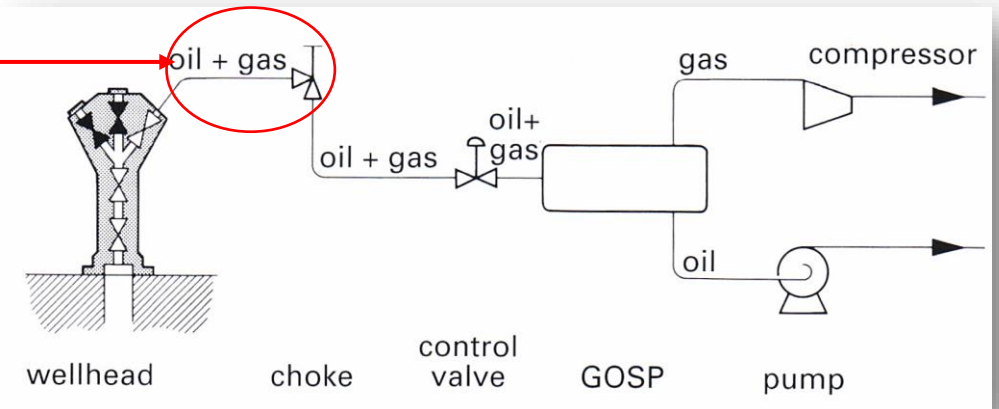
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Angle Choke Plug & Cage type Applications (PCC)

(= to – Mokveld / Masterflo / Cameron choke model)

- Oil Production Start-Up/ Shut-Down
- Gas & Condensate Production
- Gas Lift
- Well Testing
- Choke & Kill Manifolds
- Multi-Phase Flows
- Pump Discharge





RSBV – Rising Stem Ball Valve



Friction Free, Quarter Turn, Metal Seated.

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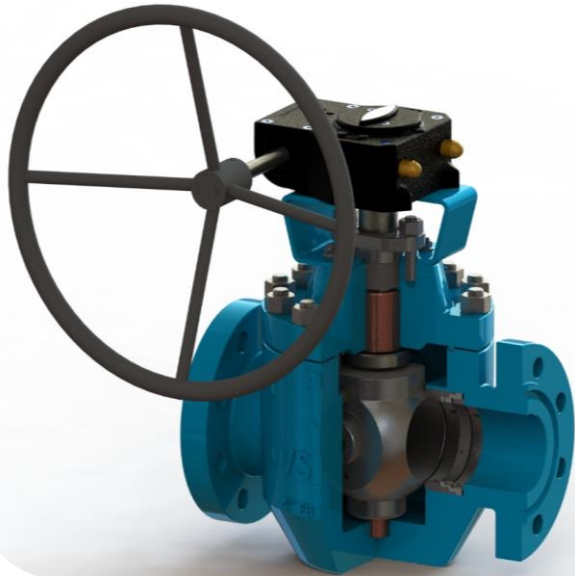
Rising Stem Ball Valves



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VS-T Valves Non Contact Ball Valve

World wide revolution VS-T Quarter Turn non contact metal seated (Patented) Design for RSBV replacement or sand, slurry or harsh applications!



Friction Free, Quarter Turn, Metal Seated next revolution non contact ball valve.

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FEATURES Tolboom

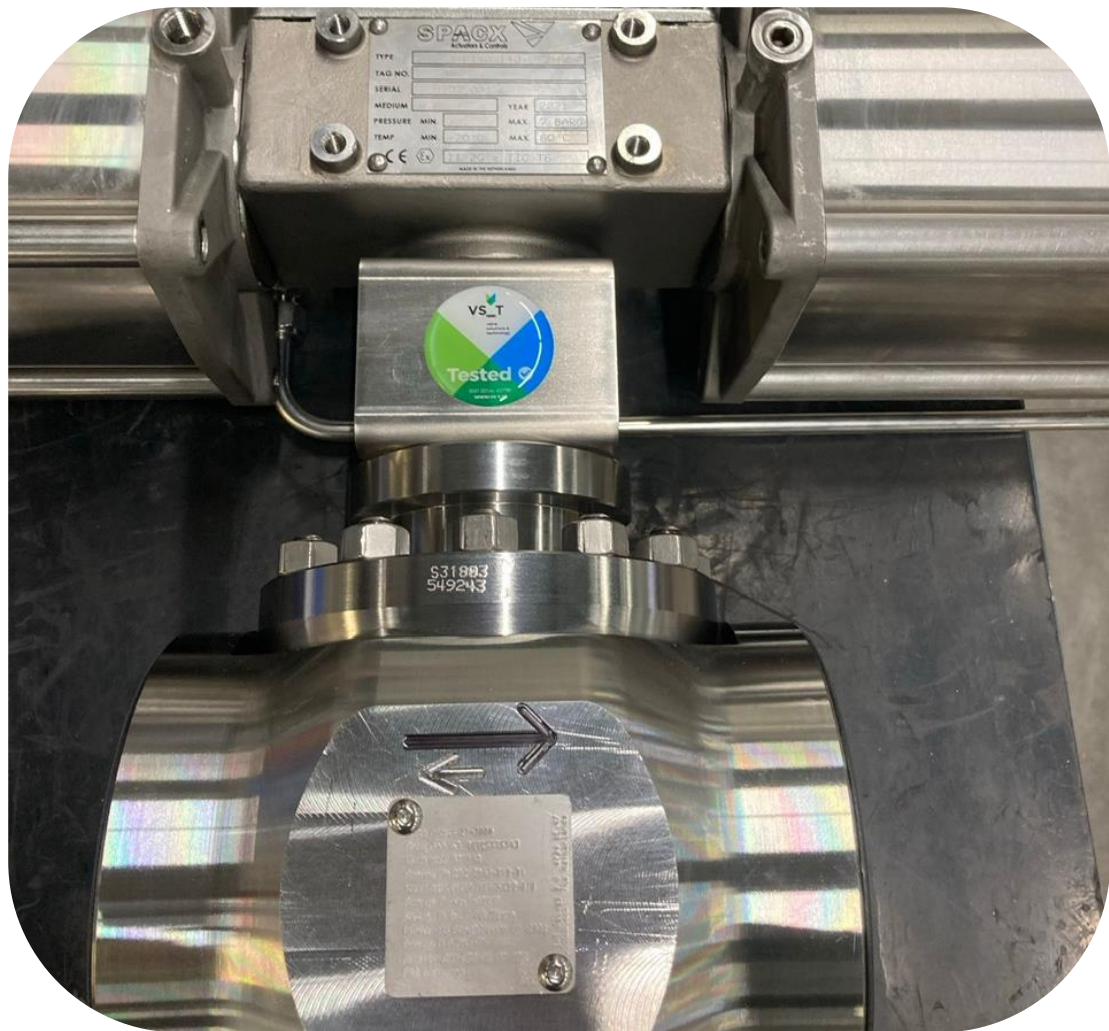
- + Non Contact Friction Free and Forced Sealing
- + Only Quarter stem turning
- + Standard Quarterturn actuators can be used
- + Low Torque
- + Low Energy Consumption (40%-60%)
- + Compact Design
- + Suitable for frequent cycling (EG mol sieve service)
- + No blocking or jamming in contaminated service
- + High temp. up to 650 °C
- + Long maintenance intervals
- + Springless design
- + Automatic surface cleaning(Ball & Seat) device available
- + Fast opening or closing allowed ≥ 2 sec.
- + No pinch point by opening or closing
- + **EXCELLENT PRICE QUALITY RATE**



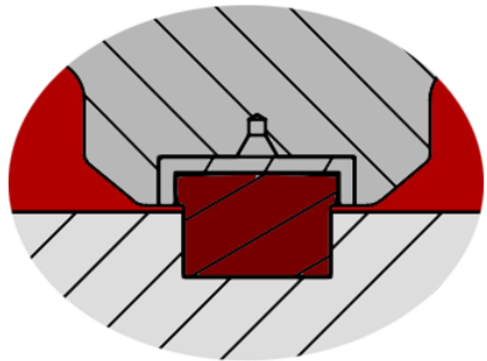
APPLICATIONS

- + Frequent cycling service
- + Molecular Sieve Service
- + Sand / Slurry Service
- + Cooking and Decoking application
- + Short cycle time
- + High temp. Up to 650°C
- + EDS and HIPPS (fast opening and closing)
- + Double Block and Bleed*
- + Isolation*
- + Gas Metering
- + Subsea (API 6DSS)
- + LNG Service

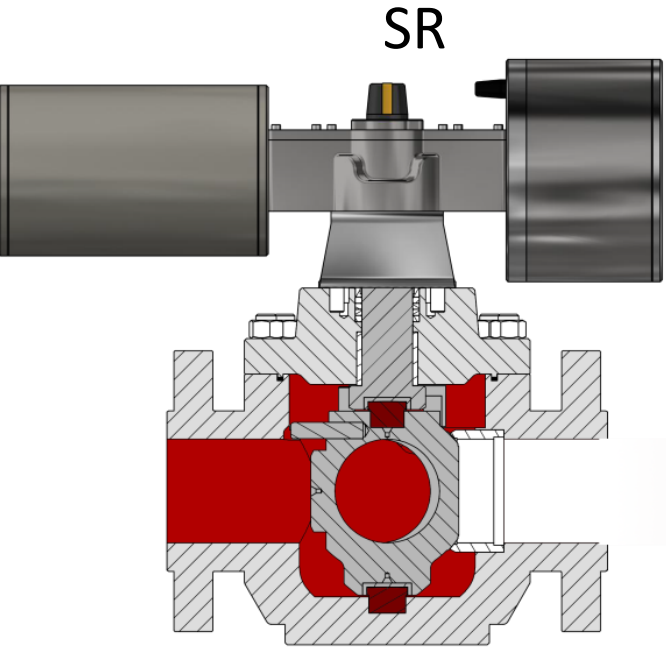
*Special Seat Design



BUILT-IN COMPARISON



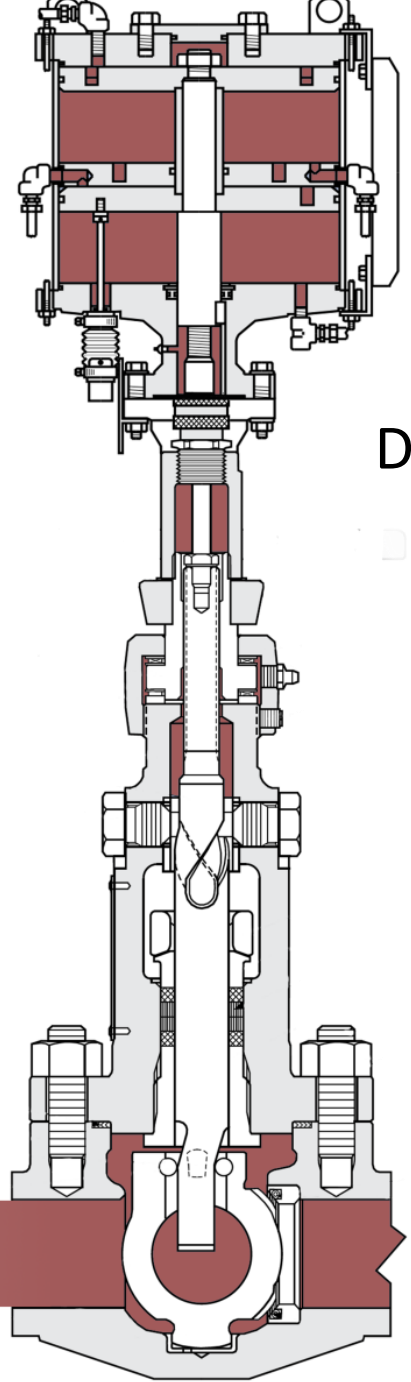
SPACE SAVING



TOLBOOM VALVE



RISING STEM BALL VALVE



DA



VS-T Projects

VS-T Projects



Ultra low Emission Technology

VS-T Projects



valve
solutions &
technology



Ultra low Emission Technology

VS-T Projects



Ultra low Emission Technology

VS-T Projects



API 6A Monogram Gate Valve



Ultra low Emission Technology

VS-T Projects



valve
solutions &
technology



Ultra low Emission Technology

VS-T Projects



valve
solutions &
technology



Steam Jacketed Metal Seated Ball Valves



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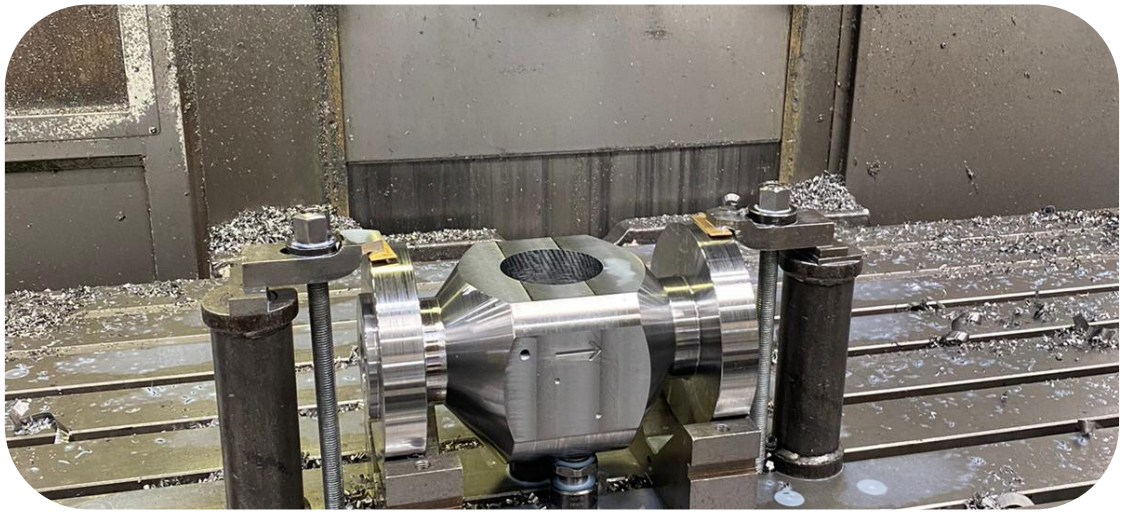
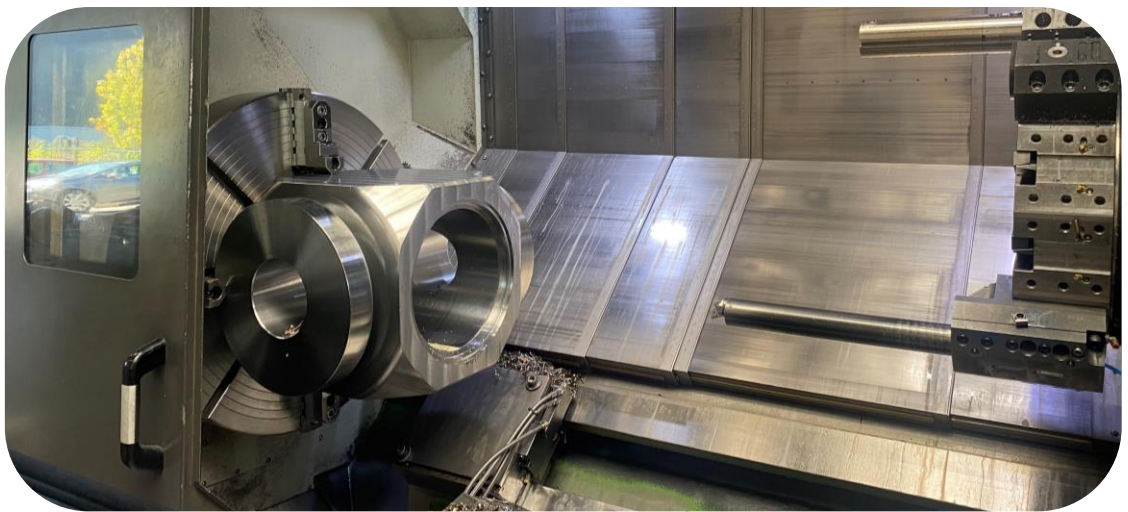


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Our production

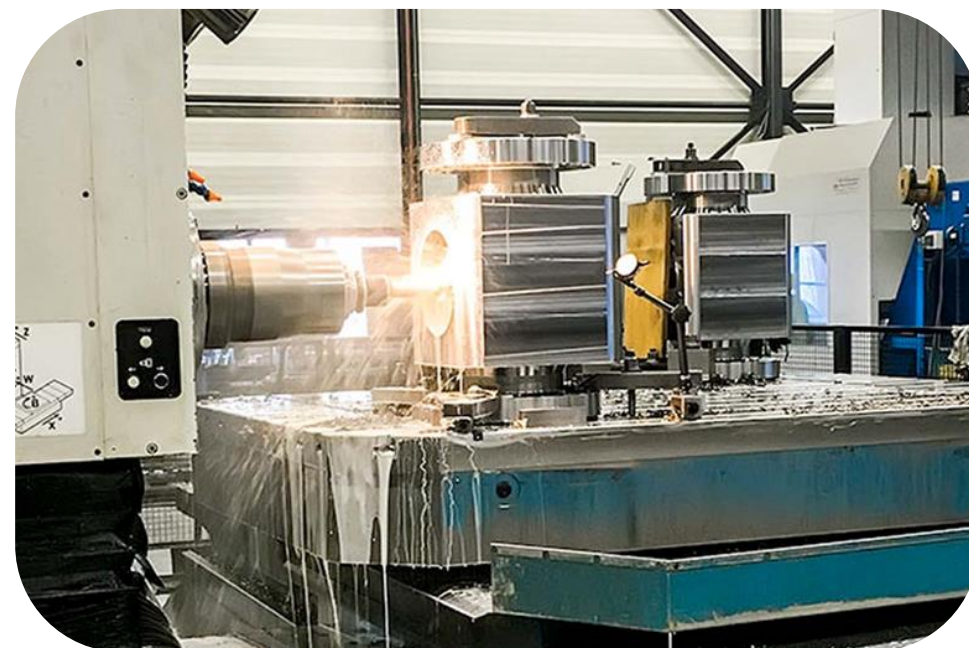


Our production

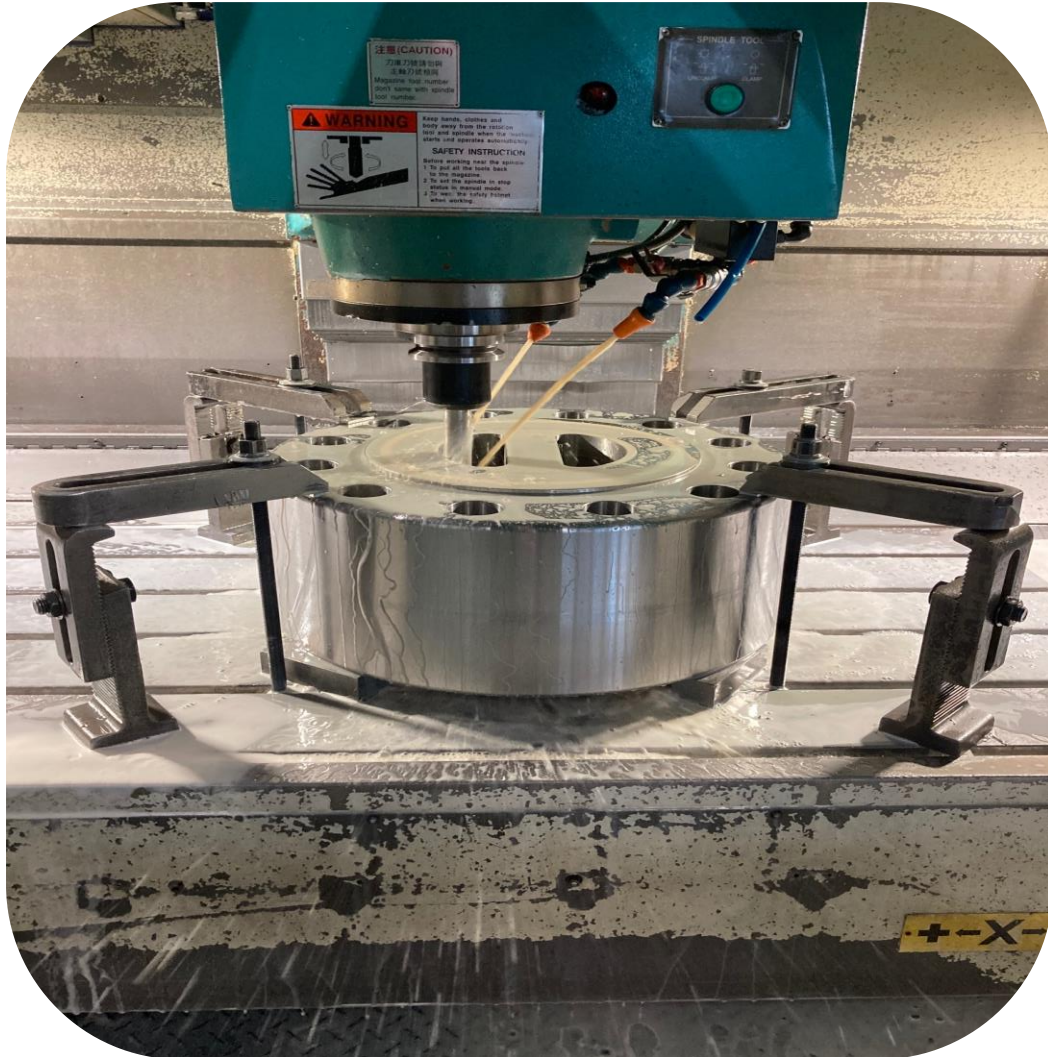


Ultra low Emission Technology

Our production



Our production



Ultra low Emission Technology

Our production



Ultra low Emission Technology



Petrofac



AkerBP



woodside

Thank you

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Valve Engineering - Valve Manufacturing - Valve Repair - Valve Modification