

CTS[®]

Valves

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CTS VALVES

**RAPID VALVE DESIGN
& MANUFACTURING**





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CTS VALVES

OUR PROPOSITION

From our well-equipped premises in The Netherlands we offer you a wide range of services. Our rapid valve design & manufacturing (RDM) program will provide you with a solution for any urgently required high-end non-commodity valves that you are urgently looking for but cannot be found within the required time frame. Our RDM program offers manufacturing and delivery times which are roughly half or less of those of traditional manufacturers.

Our flexible R&D and engineering services allow us to offer consultancy and bespoke valve design services to suit your specific application, site envelop measurements or special connections.

We are equipped with modern digital pressure test equipment and offer these facilities for independent (re)testing and (re)certifying services.

Last but not least we are also in a position to offer complete one-stop project packaging solutions. Our project services include the project supply of ball, gate, globe, check, butterfly & instrumentation valves, actuation, flanges, gaskets & fasteners, onsite delivery, inspection, testing and commissioning.

MEMBER OF NES COMPANIES

CTS Valves is a subsidiary of NES Companies. NES Companies operates independent companies such as CTS Group, Gutteling Hoses and Nedelko. With offices all around the world, the holding provides strategic guidance and financial security required to be leaders within their respective markets. With a total of 300 employees, the companies together form the NES Companies holding.

The expertise and deep industry knowledge have allowed the holding to build trust with companies across multiple vertical industries, throughout the world. The new worldwide headquarters is located in The Netherlands, with a total area of 7.400 m².

RAPID MANUFACTURING

RAPID VALVE DESIGN

One of CTS Valves core activities is rapid valve design and manufacturing (fast track valve manufacturing). With this service CTS Valves is focussing on situations where time is of the essence, such as for fast-track projects, shut down, turn around, sudden valve failure and missing or forgotten project items. In such cases there is no time to allow extensive conventional manufacturing lead times. For situations like these CTS Valves is offering reliable rapid valve design and manufacturing services.

Our well-equipped engineering department uses the latest design software which features exceptional tools for creating and managing 3D digital valve designs.

It allows superior core modelling and process workflows and includes finite element simulation capabilities. Our FEA software (finite element analysis) offers an environment for modelling, simulation and review of product performance results. This includes stress analyses, pressurised behaviour simulation as well as flow and torque calculations. From daily product engineering up to custom valves designs, our engineers are committed to provide quick responses to any engineering challenge.

RAPID VALVE MANUFACTURING

Our flexible fully certified manufacturing facilities are well equipped for manufacturing a wide range of high-end valves. All valves are manufactured, assembled, tested, and certified in our facilities in Dordrecht, the Netherlands. Our facilities also allow mounting and testing of a wide range of actuators. As you would expect we are certified to and comply with all relevant and latest quality procedures.

Last but not least it is good to know that we believe in open communication and transparency and welcome you to visit our premises in order to see real time production of your valves.

Most of our valves are made to order but within our facilities we also maintain a stock of (semi) finished valves and valve components. This might well provide you with an opportunity to get an even shorter delivery on these hard to find items!



APPLICATIONS



OFFSHORE



All our offshore valves are designed to withstand corrosive environments and comply with all relevant safety & design standards.



REFINERY



Our valves are the ideal tool for handling a wide variety of isolation tasks in applications that involve oil and gas processing fluids and gases.



SUBSEA



CTS subsea valves meet performance, safety and reliability expectations in the deepest waters and some of the harshest environments in the offshore.



CHEMICAL



Top technical challenges in the chemical industry are the ability to control fugitive emissions that affect the entire plant. We offer valve solutions with low fugitive emission.



POWER



Our severe service valves allow customers across the power spectrum to reduce costs by providing extended life time and optimized energy efficiency.



MINING



Mining operators need reliable valves and controls to handle and withstand corrosive and abrasive process fluids and transport fluids. Our mining valves are designed to withstand the harshest mining and mineral processing applications.

PRODUCTS

PRODUCT OVERVIEW

CTS Valves is fully dedicated to rapid design, manufacturing and the supply of hard to find non-stock and non-commodity valves. Providing flexible on-demand valve and actuation solutions for up-stream, down-stream, process, power and mining markets, our portfolio covers a comprehensive range of high-end ball, gate, globe and check valves.

Our standard sizes range from 1/4" to 24". Larger sizes are available on request. Pressure classes range from ANSI Class 150 to Class 4500 and API 5000 to 20000. All valves are designed, manufactured, tested and documented according to all relevant (inter)national or applicable end-user specifications.

ISOLATION VALVES



CTS manual or actuated isolating valves are used for reliable and continued shut-off of process fluids and gases in a wide variety of applications.

- Ball valves
- Gate valves
- Globe valves
- Check valves
- Dual plate check valves

SUBSEA VALVES



In today's offshore oil and gas industry, wells have become deeper than ever, causing a growing demand for a subsea valves that can withstand extreme pressures and harshest environments. The CTS Subsea valve range offers just that.

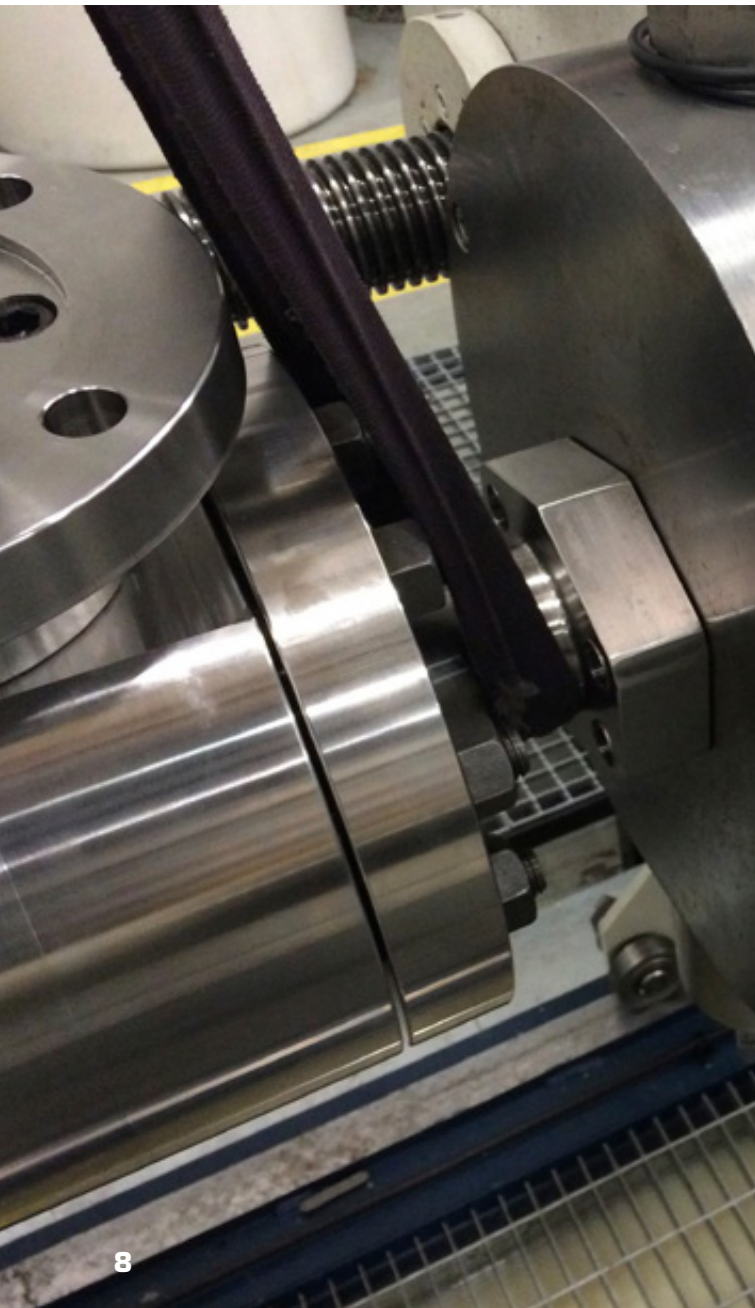
- Subsea ball valves
- Subsea gate valves
- Subsea check valves
- Subsea dual plate check valves

SEVERE SERVICE VALVES



Severe plant conditions can quickly turn into severe consequences for your business. That is why companies turn to CTS Valves. We design and manufacture severe service gate and severe service ball valves for the most extreme applications.

- Severe service ball valves
- Severe service gate valves



DOUBLE BLOCK & BLEED VALVES



Double block & bleed valves are developed for replacement of 2 valves + 1 drain or bleed valve. Double block & bleed valves offer significant weight, space and costs savings. CTS DBB valves are available in B16.10, manufacturer or customer defined face to face dimensions.

- DBB ball valves
- DBB gate valves
- DBB instrumentation valves
- DBB mono flange valves
- SBB valves

CUSTOM DESIGNED VALVES



CTS Valves designs and manufactures custom valves for unique configurations and in unique applications. We offer a variety of custom designed valves manufactured from carbon steel, stainless steel, alloys, titanium and other exotic materials. We design and manufacture products to customers specifications. We also offer modification services on existing product to meet specific requirements.

- Application specific designs
- Valve upgrades & modifications
- Valves in all materials
- Valves in all connections
- Specific envelop and face to face dimensions

VALVE MATERIALS



CTS Valves can provide valves in a wide variation of materials. Due to our focus on rapid valve design and manufacturing we predominately make use of forged materials. These materials are obtained from a selection of west European forge masters. On request we can also supply valves in casted equivalents. A selection of frequently used material can be found on page 22. Other materials are available on request.

- Carbon steel
- Alloy steel
- Stainless steel
- Duplex steel
- Nickel alloy
- Titanium

VALVE ACTUATION & CONTROLS



Proper functioning of manual valves is of utmost importance. But also actuated valves are supposed to work, each and every time. That is why we have set the highest standards for reliability, safety and level of control in our valve automation systems to suit any working environment.

- Gear units
- Subsea gear units
- Pneumatic actuators
- Hydraulic actuators
- Hydraulic subsea actuators
- Electric actuators
- Gas over oil actuators
- Subsea actuators & controls
- Control systems
- Auxiliary and back up systems

VALVES ON STOCK



Most of our valves are made to order but within our facilities we also maintain a stock of (semi) finished valves and valve components. This might well provide you with an opportunity to get an even shorter delivery on these hard to find items!

PROJECT PACKAGING



Careful (project) planning will allow you ample time for adequate and competitive project sourcing of valves. In order to accommodate such project needs, CTS Valves also offers a well balanced portfolio of competitive commodity valves for project tenders.

- Cast and forged ball valves
- Cast and forged gate valves
- Cast and forged globe valves
- Cast and forged check valves
- Butterfly valves
- Actuated valve packages

PRODUCTS

ISOLATION VALVES

CTS Valves manufactures a comprehensive line of isolation valves for oil and gas, petro-chemical, power and mining industries. Our range includes ball, gate, globe and check valves in a wide variety of materials, classes and configurations. All valves are designed, manufactured and tested in our well equipped manufacturing facilities in The Netherlands.

- Ball valves
- Gate valves
- Globe valves
- Check valves
- Dual plate check valves



OFFSHORE REFINERY CHEMICAL POWER MINING



Side entry ball valves

BALL VALVES

CTS Valves produces a wide range of ball valves which include floating and trunnion mounted ball valve designs (with single or double piston effects). Valves are available in side-entry (2 piece, 3 piece and mono body), welded and top entry body designs. Ball valves are designed to meet requirements of API6D, API6A, API 608 (API 598, API 607 Rev. 5/ISO 10497, ASME B16.5, B16.10 and/or B16.34).

CTS Ball valves are available in a wide array of valve materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with soft seats (PTFE, RPTFE, PEEK, DEVLON, etc.) or in metal seat execution (Tungsten/Chrome carbide coatings).

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft, SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators, control systems or HPU's.



Top entry ball valves



3-Way ball valves

Side entry ball valves Top entry ball valves 3-Way ball valves	
Valve types:	Floating mounted side entry ball valves Trunnion mounted side entry ball valves
Standards:	API, BS, ISO
Size range:	1/4" - 24", full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, buttweld, socketweld, threaded, lugged, hub-end
Soft seated:	PTFE, RTFE, PEEK, etc.
Metal seated:	Tungsten carbide coating, chrome carbide coating
Options:	High temperature design Low temperature design Fully welded design

GATE VALVES

CTS Valves produces a wide range of OS&Y gate valves which include wedge gate, parallel slide gate and through conduit gate valves with bolted, welded or pressure sealed bonnets, with standard or bellow seal sealing. Wedges are available in flexible, solid, split wedge and double expanding design. Gate valves are designed to meet requirements of ASME B16.34, API 600, API 6D ASME B16.5, ASME B16.10, API 602, API 6D and API 6A.

CTS Gate valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated plugs, discs and seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators and control systems.



Gate valves	
Valve types:	Wedge gate valves Through conduit gate valves Slab gate valves Expanding gate valves
Standards:	BS, ISO, API
Size range:	2" - 24" full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	Bolted bonnet Pressure sealed bonnet Welded bonnet

GLOBE VALVES

CTS Valves produces a wide range of OS&Y globe valves which include straight pattern, angle pattern, y-pattern and stop check globe valves with bolted, welded or pressure sealed bonnets, standard or bellow seal sealing. Globe valves are designed to meet requirements of ASME B16.34, BS-1873, ASME B16.5, ASME B16.10 and API 602.

CTS Globe valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated discs & seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, anti-static devices, standard & custom coating.



Globe valves	
Valve types:	Straight pattern globe valves Y-type globe valves Angle type globe valves
Standards:	BS, ISO, API
Size range:	1/4" - 12", regular bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	High temperature design Low temperature design Bolted bonnet Pressure sealed bonnet Welded bonnet

PRODUCTS

CHECK VALVES

CTS Valves produces a wide range of check valves which include swing, tilting disc, ball and piston check valves with bolted, welded or pressure sealed bonnets. Check valves are designed to meet requirements of ASME B16.34, BS-1868, ASME B16.5, ASME B16.10, API 602, API 6D and API 6A.

CTS Check valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated gates & seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, TUV design, sealant injection system, buried service designs, fire safe designs & certification, standard & custom coating.



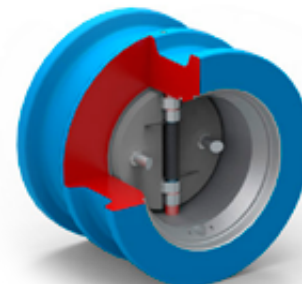
Check valves	
Valve types:	Swing check Ball check Piston check Axial flex check Tilting disc
Standards:	BS, ISO, API
Size range:	1/4" - 12", regular bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	High temperature design Low temperature design Bolted bonnet Pressure sealed bonnet Welded bonnet

DUAL PLATE CHECK VALVES

CTS Valves produces a range of dual plate check valves in flanged, wafer or lugged design. Dual plate check valves are designed to meet requirements of ASME B16.34, API598, API6D, ISO 14313 and ASME B16.10.

CTS dual plate check valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated discs or seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, sealant injection system, buried service designs, fire safe designs & certification, standard & custom coating.



Dual plate check valves	
Standards:	BS, ISO, API
Size range:	2" - 12"
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, wafer, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	On request



PRODUCTS

SUBSEA VALVES

CTS Valves manufactures a complete line of API6DSS and API17D subsea valves for subsea oil and gas applications. Our range includes ball, gate and check valves in a wide variety of materials, classes and configurations. All subsea valves are designed, manufactured and tested in our well-equipped manufacturing facilities in The Netherlands.

- Subsea ball valves
- Subsea gate valves
- Subsea check valves
- Subsea dual plate check valves



SUBSEA

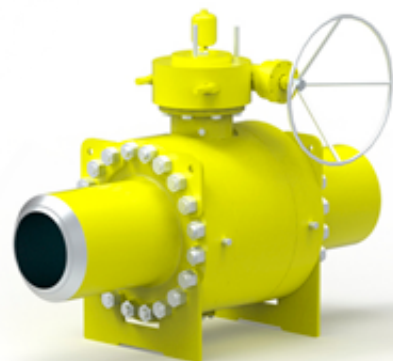
SUBSEA BALL VALVES

CTS Valves produces a wide range of subsea ball valves which include floating and trunnion mounted ball valve designs (with single or double piston effects). Subsea ball valves are available in side-entry (2 piece), fully welded and top entry body designs. CTS Subsea Ball valves are designed to meet requirements of API6DSS, API17D, ISO 14723, ASME B16.5, B16.10 and B16.34.

CTS Ball valves are available in a wide array of valve materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with soft seats (PTFE, RPTFE, PEEK, DEVLON, etc.) or in metal seat execution (Tungsten/Chrome carbide coatings).

Options include hyperbaric testing, additional NDE testing, sealant injection system, stem extensions, fire safe designs & certification, standard & custom subsea coating.

Valves can be supplied with diver or ROV operated gears or complete with hydraulic actuators, control systems, HPU's etc.



Subsea ball valves	
Standards:	API6DSS, ISO14723
Size range:	2" - 24", full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Soft seated:	PTFE, RTFE, PEEK, etc.
Metal seated:	Tungsten carbide coating, chrome carbide coating
Options:	Side entry, top entry Bolted, fully welded design Diver operated, ROV operated Subsea actuated



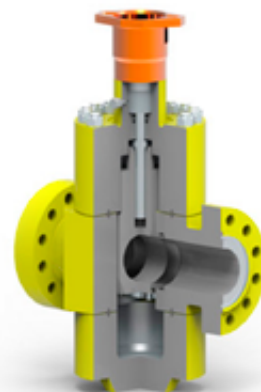
SUBSEA GATE VALVES

CTS Valves produces a range subsea gate valves which includes parallel slide gate and through conduit gate valves with bolted, welded or pressure sealed bonnets. Subsea gate valves are designed to meet requirements of API6D, API6DSS, API6A, ISO14723, ASME B16.5, B16.10 and B16.34.

CTS Subsea gate valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated plugs, discs and seats.

Options include hyperbaric testing, additional NDE testing, sealant injection system, stem extensions, fire safe designs & certification, standard & custom subsea coating.

Valves can be supplied with diver or ROV operated gears or complete with hydraulic actuators, control systems, HPU's etc.



Subsea gate valves

Valve types:	Through conduit Slab gate Expanding gate
Standards:	API6DSS, API17D, ISO14723
Size range:	2" - 24", full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	Bolted bonnet Pressure sealed bonnet Welded bonnet

PRODUCTS

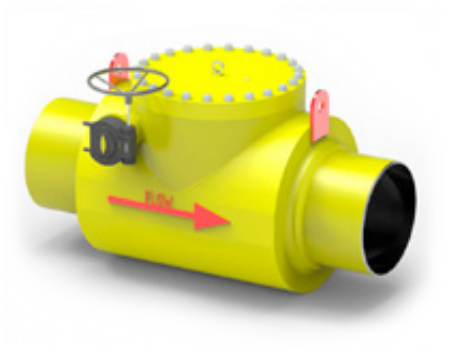
SUBSEA CHECK VALVES

CTS Valves produces a range of subsea check valves which include swing check valves with bolted, welded or pressure sealed bonnets. Subsea check valves are designed to meet requirements of API6D, API6DSS, API6A, ISO14723, ASME B16.5, B16.10 and B16.34.

CTS Subsea Check valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated gates & seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, TUV design, low and zero emission designs, sealant injection system, buried service designs, fire safe designs & certification, anti-static devices, standard & custom subsea coating.

Valves can be supplied with diver or ROV operated gear for lock-open position which will enable bi-directional pigging.



Subsea check valves	
Standards:	API6DSS, ISO14723
Size range:	1/4" - 12", regular bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	Piggable Lock-open feature

SUBSEA DUAL PLATE CHECK VALVES

CTS Valves produces a range of subsea dual plate check valves in flanged wafer or lugged design. Dual plate check valves are designed to meet requirements of ASME B16.34, API598, API6D, API6DSS, ISO 14723, ISO 14313 and B16.10.

CTS subsea dual plate check valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or carbide coated discs or seats.

Options include additional NDE testing, NACE, sealant injection system, fire safe designs & certification, standard & custom subsea coating.



Subsea dual plate check valves	
Standards:	API, BS, ISO
Size range:	2" - 24"
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, wafer, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	On request



PRODUCTS

SEVERE SERVICE VALVES

CTS Valves manufactures a complete range of severe service valves which are designed to withstand abrasive, corrosive and extreme temperature applications in harsh environments. Whether you are looking for severe service valves for upstream, downstream, process, power or mining, CTS Valves will provide you with tailor made solutions for every severe service condition.

The use of high strength, high alloy and extreme temperature resistant material in combination with selection of fit for purpose HVOF applied carbide coatings as well as the latest sealing technology will ensure maximised valve life under the harshest service conditions.

- Severe service ball valves
- Severe service gate valves



OFFSHORE



REFINERY



CHEMICAL



POWER



MINING

SEVERE SERVICE BALL VALVES

CTS Valves manufactures a complete range of severe service ball valves which are designed to withstand abrasive, corrosive and extreme temperature applications in and harsh environments.

Our severe service ball valve range includes side-entry (2 piece and three piece), welded and top entry body designs. Severe service ball valves are designed to meet requirements of API6D, API6A, API 608 (API 598, API 607 Rev. 5/ ISO 10497, ASME B16.5, B16.10 and B16.34.

CTS Severe service ball valves are available in a wide array of valve materials (steel, stainless steel, duplex steel, alloys, super alloys etc.). All valves are supplied with HVOF carbide coated ball and seats. A variety of HVOF coatings is available. Careful coating selection will ensure optimum performance and extended seat life.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief & filler systems, TA-luft, SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators, control systems, HPU's, etc.



Severe service ball valves

Standards:	BS, ISO
Size range:	1/4" - 12", full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Tungsten carbide coating, chrome carbide coating
Options:	High temperature design Low temperature design



SEVERE SERVICE GATE VALVES

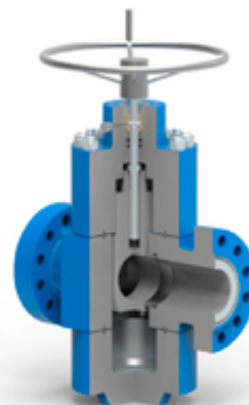
CTS Valves manufactures a complete range of severe service gate valves which are designed to withstand abrasive, corrosive and extreme temperature applications in and harsh environments.

Our severe service gate valve range includes parallel slide and through conduit gate valves with bolted, welded or pressure sealed bonnets and with standard or bellow seal sealing. Wedges are available in flexible, solid, split wedge and double expanding design . Gate valves are designed to meet requirements of ASME B16.34, API 600, API 6D, ASME B16.5, ASME B16.10, API 602, API 6D and API 6A.

CTS Severe service gate valves are available in a wide array of materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with stellite 6 or a variety of carbide coated gates and seats.

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators and control systems, HPU's, etc.



Severe service gate valves

Valve types:	Wedge gate Through conduit gate Slab gate Expanding gate
Standards:	API, BS, ISO
Size range:	2" - 24", full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, butt-weld, socket weld, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	Bolted bonnet

PRODUCTS

DOUBLE BLOCK & BLEED VALVES

Double block & bleed valves are developed for replacement of 2 valves + 1 drain or bleed valve. Double block & bleed valves offer significant weight, space and costs savings. CTS DBB valves are available in B16.10, manufacturer or customer defined face to face dimensions.

- DBB ball valves
- DBB gate valves
- DBB instrumentation valves
- DBB mono flange valves
- SBB valves



OFFSHORE REFINERY CHEMICAL

DOUBLE BLOCK & BLEED VALVES

CTS Valves produces a wide range of double block & bleed (DBB) valves which include floating and trunnion mounted ball valve designs. DBB valves are available in numerous configurations (ball, needle, gate) and connections, including sample and injection valve configurations. Bleed configurations range from bleed plugs, to needle valves and (DBB) ball and/or OS&Y globe & gate valves. Face to face dimensions will comply with either ASME B16.10 or manufacturer standard.

CTS DBB valves are available in a wide array of valve materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with soft seats (PTFE, RPTFE, PEEK, DEVLON) or in metal seat execution (Tungsten/Chrome carbide coatings).

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft, SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators, control systems and HPU's.



Double Block & Bleed valves	
Valve types:	Ball valves Gate valves Instrumentation valves Mono flange valves
Standards:	BS, ISO, API
Size range:	1/4" - 16" full bore, reduced bore, other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Flanged, threaded, lugged, hub-end
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Metal seated:	Tungsten carbide coating, chrome carbide coating
Options:	Bolted, threaded or welded drain configurations

CUSTOM DESIGNED VALVES

CTS Valves designs and manufactures custom valves for unique configurations and in unique applications. We offer a variety of custom designed valves manufactured from carbon steel, stainless steel, duplex steel, alloys, titanium and other exotic materials. We design and manufacture products to customers specifications. We also offer modification services on existing product to meet specific requirements.

- Application specific designs
- Valve upgrades & modifications
- Valves in all materials
- Valves in all connections
- Specific envelop and face to face dimensions



OFFSHORE REFINERY SUBSEA CHEMICAL POWER MINING

CUSTOM DESIGNED VALVES

CTS Valves offers flexible on-demand valve design solutions for your particular valve needs. Whether you require a specific valve configuration, material or actuation & control solution, our engineering team is available to discuss your needs and provide you with a custom design solution.

Custom designed valves are designed to your specific (unique) valve applications. Designs can be based on any given international or client specifications.

CTS custom designed valves are available in a wide array of valve materials (steel, stainless steel, duplex steel, alloys, super alloys etc.), with soft seats (PTFE, RPTFE, PEEK, DEVLON) or in metal seat execution (Tungsten/Chrome carbide coatings).

Options include additional NDE testing, NACE, high temperature design, cryogenic design, locking devices, cavity relief systems, TA-luft, SPE 77/312 design, low and zero emission designs, sealant injection system, stem extensions, buried service designs, fire safe designs & certification, standard & custom coating.

Valves can be supplied with manual operators or complete with electric, pneumatic or hydraulic actuators, control systems and HPU's.



Custom designed valves	
Valve types:	Standard and bespoke
Standards:	API, BS, ISO and bespoke
Size range:	2" - 24", other sizes on request
Pressure classes:	ANSI Class 150, 300, 600, 900, 1500, 2500, 4500 API 5000, 10000, 15000, 20000
Connections:	Standard and bespoke
Materials:	Carbon steel, low temperature carbon steel, low alloy steel, stainless steel, duplex steel, nickel alloys, titanium, etc.
Facing:	Stellite, tungsten carbide coating, chrome carbide coating
Options:	On request

PRODUCTS

VALVE MATERIALS

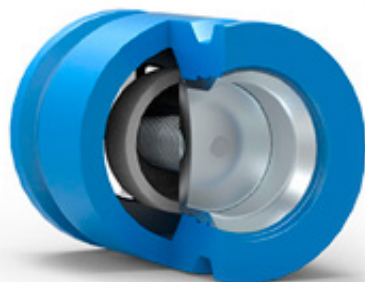
CTS Valves can provide valves in a wide variation of materials. Due to our focus on rapid valve design and manufacturing we predominately make use of forged materials. These materials are obtained from a selection of west European forge masters. On request we can also supply valves in casted equivalents. A selection of frequently used material can be found below, other are available on request.

- Carbon steel
- Alloy steel
- Stainless steel
- Duplex steel
- Nickel alloy
- Titanium



VALVE MATERIALS

All custom valves are designed, manufactured and tested in our well-equipped manufacturing facilities in The Netherlands.



Valve materials	
Carbon steel:	ASTM A105N ASTM A350 LF2
Alloy steel:	ASTM A350 LF3 ASTM A182 F5a ASTM A182 F9 ASTM A182 F11 ASTM A182 F22 ASTM A182 F91 AISI 4130
Stainless steel:	ASTM A182 F304/F304L ASTM A182 F316/316L ASTM A182 F321 ASTM A182 F47 ASTM A182 F44 (6MO) ASTM A182 F20 (Alloy 20) AISI 410
Duplex steel	ASTM A182 F51 (Duplex) ASTM A182 F53 (Super duplex) ASTM A182 F55 (Super duplex)
Nickel alloy:	ASTM B564 N08825 (Inconel 825) ASTM B564 N06600 (Inconel 600) ASTM B564 N06625 (Inconel 625) ASTM B564 N04400 (Monel 400)
Titanium:	ASTM B381 Gr. F2 ASTM B381 Gr. F3

Other materials available on request.

VALVE ACTUATION & CONTROLS

Proper functioning of manual valves is of utmost importance. But also actuated valves are supposed to work, each and every time. That is why we have set the highest standards for reliability, safety and level of control in our valve automation systems to suit any working environment.

- Gear units
- Subsea gear units
- Pneumatic actuators
- Hydraulic actuators
- Hydraulic subsea actuators
- Electric actuators
- Gas over oil actuators
- Subsea actuators & controls
- Control systems
- Auxiliary and back up systems



VALVE ACTUATION & CONTROLS

CTS Valve can provide all valves complete with actuation to suit your specific requirements and as such providing you with a 1 stop solution for valves + actuators.

We offer a broad range of reputed brands and we are in a position to supply actuated valves complete with control systems which amongst others, includes; switch boxes, positioners, partial stroke test systems, overrides, filters, pressure regulators, fail safe tanks, line break systems, etc.

Our actuation range includes:

- Gear units
- Subsea gear units (hand wheel or ROV operated)
- Electric actuators
- Pneumatic actuators (single/double acting, piston or vane, scotch-yoke or rack & pinion)
- Hydraulic actuators (single/double acting or compact design)
- Hydraulic subsea actuators (single/double acting or compact design)
- Gas over oil actuators



PRODUCTS

VALVES ON STOCK

Most of our valves are made to order but within our facilities we also maintain a stock of (semi) finished valves and valve components. This might well provide you with an opportunity to get an even shorter delivery on these hard to find items!



OFFSHORE



REFINERY



SUBSEA



CHEMICAL



POWER



MINING



PROJECT PACKAGING

Careful (project) planning will allow you ample time for adequate and competitive project sourcing of valves. In order to accommodate such project needs, CTS Valves also offers a well balanced portfolio of competitive commodity valves for project tenders.

- Cast and forged ball valves
- Cast and forged gate valves
- Cast and forged globe valves
- Cast and forged check valves
- Butterfly valves
- Actuated valve packages



OFFSHORE REFINERY SUBSEA CHEMICAL POWER MINING

PROJECT PACKAGING

You will not always experience an immediate need for the valves that you require. Careful (project) planning will allow you ample time for adequate and competitive project sourcing of valves. In order to accommodate such project needs, CTS Valves also offers a well balanced portfolio of competitive commodity valves for project tenders.

ON-SITE DELIVERY & INSTALLATION

If required we can also complete our valve packages with counter flanges, gaskets and fasteners. We will ship all over the globe and deliver on your doorstep. If needed, we can also supervise installation and field testing. Please do not hesitate to contact us with you project requirements.

We are able to supply complete project packages for ball, gate, globe, check, butterfly and instrumentation valves. It goes without saying that all valves will be supplied complete with operators and actuators and controls in line with your requirements.





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