







PRECISION AND PERFORMANCE

ABOUT US

Our journey began in 1921 with the distribution of high-performance valves, gauges, and packing materials. Strahman was the first Company to develop a free-flowing, non-clogging piston tank bottom and drain valve for the USA Dairy market. This design and engineering expertise led to the development of a complete line of highquality, innovative valves that were quickly adopted across numerous markets.

We excel at design, engineering, and customized solutions where critical functionality or severe service is the criterion. We have valves for numerous industries, including oil and gas, chemical, petrochemical, polymer, and refining, to name a few; with an extensive range for the transfer of fluid and flow control, we have a solution for you.

For over 100 years, Strahman has been known as a global leader in the manufacturing and distribution of process valve products and industrial washdown equipment.

OUR MANUFACTURING CAPABILITIES & EXCEPTIONAL CUSTOMER SERVICE

- All our manufacturing facilities are ISO9001 certified
- Three manufacturing plants with more than 100,000 square feet with ample room for growth
- Bethlehem, Pennsylvania standardized process valves, custom process valves, automated and fire safety valves, washdown equipment
- Mery, France custom process valves, standardized process valves
- Vaux sous Aubigny, France custom process valves, specialized fabricated product for niche markets
- Manufacturing to 5S Lean Operational Excellence
- Quality Assurance and Inspection on Shop Floor
- Engineering-To-Order (ETO) providing custom niche product solutions for critical projects and services to include extensive design, engineering, and machining support needed to satisfy requirements
- CNC, machining, welding, sandblasting, and assembly

Today, we are a trusted industrial equipment manufacturer that provides quality, dependability, and reliable solutions for customers worldwide. We are not just building parts, but we are building relationships. We work hard to get the answers you need when you need them. We foster an environment that strengthens and builds customer loyalty by providing our internal sales team with the autonomy to make sound decisions in answering customer inquiries.

Get in touch with us today and let us know how we can help you!





Machining work is performed in our Bethlehem, PA shop. Valves are manufactured to ASME Codes and customer specifications.

SINGLE AND DOUBLE DISC GATE VALVES TECHNICAL AND GENERAL INFORMATION

DESIGN CODE & CONSTRUCTION

- Design flexibility due to fabricated construction
- Design according to ASME B16.34 as a standard
- Strahman designs to international standards like: ANSI, DIN, JIS, API etc.
- For product development, Strahman uses finite element calculations, in-house design and testing facilities and mechanical research laboratories for product development.

CERTIFICATIONS

- ISO 9001 Compliant
- PED/ATEX/CE
- GOST R Certificate
- TUV/HPO/TA Luft

STANDARDS

- · ASME B16.34 for design, manufacturing, control of raw materials and final testing of the valves
- ANSI/FCI 70-2 for leakage rates Class IV & V are available
- API 6 FA for fire tests
- ASTM for materials
- · API and ANSI face to face are available

CUSTOMER SUPPORT

Strahman Valves provides customer support in the following areas:

- **Design:** specific recommendation can be made for valve selection, sizing in polymer control, reactor cleaning and high viscosity flow capacity.
- · On site service: Plant start up support by trained engineers
- After sales service: Strahman after sales department and worldwide agent network are committed to our 1 day reaction time policy.

MATERIALS

Wide range of material selections like: Carbon Steel / Chromium Steel / Stainless Steel / Hastelloy[®] / Duplex.

PRODUCTION METHOD

· Fabricated and cast designs

TYPICAL APPLICATIONS FOR STRAHMAN SLAB GATE VALVES

- · Main transfer and decoking lines of ethylene units
- Coal gasification units
- Regenerated Catalyst Service
- Recirculation Catalyst Service
- Flue Gas Lines
- Over head vapor lines

TYPICAL APPLICATIONS FOR DOUBLE DISC THROUGH CONDUIT VALVES

- Coal gasification units
- · Reactor Overhead Line (Fractionator Inlet)
- Fractionator Bottom Line (Fractionator Outlet)
- Regenerator Pressure Control
- · FCCU-Overhead Line Isolation (Fractionators inlet)
- · Bottom Line Isolation (Fractionators Bottom)
- · Any Hot Gas or Catalyst Service

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DESIGN FEATURES OF THE STRAHMAN DOUBLE DISC DESIGN

- · Two independent sealing discs for true "Block and Bleed" functionality
- · Steam Purged for 100% positive shut-off and inability for particles to enter the valve body or atmosphere
- · Capable of remote operation for complete personnel safety
- · Low maintenance design for uninterrupted operations between turnarounds
- · Mechanical spreading mechanism that requires no additional force for long-term sealing capability
- · Capable of manual operation for immediate operation



Double Disc Valve in FCC Service

GENERAL DESCRIPTION FOR THROUGH CONDUIT VALVE DOUBLE DISC TYPE

- Designed for on/off service
- Fabricated body with full bore design
- Through conduit type in the open position: the body bore forms a straight tube eliminating dead space while creating a barrier keeping solids from entering the body cavity during operation of the valve
- Parallel metal stellited seats guarantees the tightness at high temperature along with weld resistant overlay on body seats provide the necessary corrosion protection. The discs are also hard surface treated to prolong service life
- Sealing surfaces on the seats and discs are protected from flow in the open position limiting erosion and deposits on the body seats
- · Positive tight shut off in closed position
- · Yoke type with out side screw and bolted bonnet



Double Disk Spreading Mechanism



THE STRAHMAN COMPETITIVE ADVANTAGE

The double disc gate valve has two separate stellited discs and two removable stellited seats rings; these discs are moving between two guides plates; when the two discs are in closed position, a flexible wedges system which is located and fixed on the side of the cavity body applies the necessary seating forces on the two discs to obtain the necessary tightness against the seats. This design feature offers the solution to other designs that are known to become jammed due to high temperatures and the "sticking" of the discs. These discs are then "dragged" along the seats without the proper release damaging the seats and making it very problematic to seat again without using excessive amounts of steam.

A superior purging system has also been implemented with additional steam paths around the wedges system to eliminate possible coke build-up. Additional purging ports can be designed as recommended during the design phase for maximum purging efficiency.

When the valve is in open position the flexible bellow located on the pipe is reinforced by 3 outside graphite rings which push the 2 parts of the pipe against the body seats creating a tight seal. This design improvement solves the common problem with other designs having the body cavity filled with coke blocking the discs in half position.



PROCESS MEDIUM

Suitable for Gases and fluids with high solid particle content reaching temperatures of 815°C (1500°F)

RANGE DEFINITION

Manufacturing Range	PN 10/20 - 150 lbs.	PN 40/50 - 300 lbs.	PN 100-600 lbs.	PN 150/160 - 900 lbs.	PN 250 - 1500 lbs.	PN 420 - 2500 lbs.	PN 630 - 4500 lbs.
3%" - DIN10							
1⁄2" - DIN15							
¾" - DIN20							
1" - DIN25							
1 ¼" - DIN32							
1 ½" - DIN40							
2" - DIN50							
2 ½" - DIN65							
3" - DIN80							
4" - DIN100							
5" - DIN125							
6" - DIN150							
8" - DIN200							
10" - DIN250							
12" - DIN300							
14" - DIN350							
16" - DIN400							
18" - DIN450							
20 - DINSUU							
24" - DIN600							
28" - DIN600							
32" - DIN600							
36" - DIN600							
40" - DIN600							
44" - DIN600							
48" - DIN600							

Above 48" upon request.

STRAHMAN DOUBLE DISC DESIGN



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STRAHMAN SINGLE SLAB GATE DESIGN TECHNICAL INFORMATION

DESIGN FEATURES OF THE STRAHMAN SINGLE DISC DESIGN

- The gate and seats are in constant contact to keep particles out of the valve body
- · Steam purged for 100% positive shut off
- · Capable of remote operation for complete personnel safety
- · Low maintenance design for uninterrupted operations between turnarounds
- · Can be electric, hydraulic, or even pneumatically operated with Manual override

¾" - DIN10 I I I ¾" - DIN20 I I I I ¾" - DIN20 I I I I I 1" - DIN25 I I I I I I 1" - DIN25 I I I I I I I 1 ¼" - DIN30 I	Manufacturing Range	PN 10/20 - 150 lbs.	PN 40/50 - 300 lbs.	PN 100-600 lbs.	PN 150/160 - 900 lbs.	PN 250 - 1500 lbs.	PN 420 - 2500 lbs.	PN 630 - 4500 lbs.
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48" - DIN600	44" - DIN600							
	48" - DIN600							

RANGE DEFINITION



STRAHMAN SINGLE DISC DESIGN

Above 48" upon request.

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STRAHMAN SINGLE SLAB GATE DESIGN



THE STRAHMAN COMPETITIVE ADVANTAGE

The Strahman Single or "Slab" gate design provides the end user with a long term reliable solution for line isolation. The flexibility of the slab gate design including flange connections, materials of construction, and the choice of actuation - whether it is best suited for hydraulic, electric, pneumatic, or hand wheel gear operation will fit the needs of design engineers. The slab gate design also offers a much smaller footprint and can bring a substantial weight savings over the traditional ball valves and wedge style gate valves. These valves also eliminate the concerns of failure caused by a "sticky" ball or wedge gate and can be repaired at a much lower cost and much less frequently as traditional valves. The combination of the constant cleaning of the gate surface with every stroke along with the constant steam purge system plays a significant role in the low maintenance design and longevity of the valve.

THE STRAHMAN FLEXIBILITY OF DESIGN

Strahman understands there are needs for custom designs to fit in custom applications. One of our customers had a very short end to end requirement for a 36" isolation valve applicaiton so our engineering team designed a rack and pinion style slab gate with gear boxes above bonnet to fit 45 pieces of these in a tight circular configuration. This particular valve was also successfully cryo-tested for operation at subzero temperature of -85°C (-121°F).













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STRAHMAN DOUBLE DISC AND SLAB GATE DESIGNS

THE TYPICAL DESIGN OF THE MODERN DELAYED COKING UNIT



DOUBLE DISC AND SLAB GATE REFINERY APPLICATIONS INCLUDE:

- Transfer Lines
- Quench Oil Lines
- Blow Down Isolation
- Regenerator Flue Gas
- Furnace Isolation
- Flue Gas Pressure Control
- Inlet Feed Line Isolation

- Decoking Lines
- Over Head Vapor Lines
- Cutting Water Isolation
- Fractionator Isolation
- · Catalyst Shutoff
- Cutting Water Isolation
- Ethylene Service

STRAHMAN DOUBLE DISC AND SLAB GATE DESIGNS

THE TYPICAL DESIGN OF THE MODERN FLUID CATALYTIC CONVERTER UNIT





FLUID CATALYTIC CRACKING UNIT

THE STRAHMAN FAMILY OF PRODUCTS INCLUDE:



WASH DOWN EQUIPMENT

Strahman offers a full line of mixing units, hose stations, hoses, nozzles, and wash down accessories designed for industrial use for a wide variety of industry including food & beverage processing, meat & poultry, agriculture, pharmaceutical, research laboratories, chemical, wineries, breweries, and more.





AUTOMATED VALVES & THERMAL SHUT-OFF VALVES

Strahman automated valve packages with floating ball valves and resilient seated butterfly valves come complete with electric or pneumatic actuators for a wide array of industrial applications. Additionally, a full suite of API 607 fire safe valve products are offered as actuated units or to be used in conjunction with our FM approved thermal shut-off assemblies. Resettable Emergency Block Valves (R-EBV) are also available for the oil & gas and chemical industries.

VALVES & LINE BLINDS

Strahman's portfolio includes: sampling valves, drain valves, gate valves, diverter and piston-type valves, ball valves, and line blinds for the control of fluid and gases in the pipeline system. Strahman also provides custom solutions for industry where products manufactured in batch and continuous process require consistent high quality and safety. Strahman serves a wide variety of industries and process applications including oil refinery, pulp and paper, and chemical.

CONTACT US

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Need more information? Give us a call today or visit our website.



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