



The Right Valve Solution for  
Your Critical Applications



**ITT**

ENGINEERED FOR LIFE

# ITT Engineered Valves

Every valve we make...makes a difference somewhere in the world

At ITT Engineered Valves, our people are proud to have been building reliable, innovative, highly engineered valves for more than sixty years. We understand that every client's application has its own unique set of challenges. Which is why our approach to product development is different. We don't start with specs or materials. We start with you.

Our intuitive, hands-on approach results in technologies and products that are customized to solve your problem in the most efficient, reliable manner. With a proven record of delivering rugged, reliable products for every industry we serve, at ITT Engineered Valves our focus is always on you. We consult with our customers to provide customized solutions for the most critical applications. We approach each unique challenge with an unwavering focus to your plant's performance – and make the impossible possible.



## Engineered Valves Products

Through standard and custom designed valve assemblies, ITT Engineered Valves is your partner in providing solutions for your unique flow control or safety needs.

- Cam-Line® Plastic Lined Ball Valves
- Cam-Tite® Hazardous and Critical Duty Ball Valves
- Dia-Flo® Industrial Diaphragm Valves
- Fabri-Valve® Knife Gate, Slide Gate, Wedge Gate and Custom-Fabricated Valves
- Pure-Flo® Hygienic Diaphragm Valves
- Scotch® Safety Shut-Off Valves

# Markets Served

## Mining

Metal & Minerals processing draws on a wide range of applications which require broad industry experience. ITT Engineered Valves has built a reputation as a full service global partner with proven valve experience in the Metals & Minerals Industry. For more than 60 years, we have provided solutions for the most difficult slurries and fluid applications within the following processes:

- Milling Circuit
- Cyclone / Sizing
- Chemical Addition
- Flotation Separation
- Clarifiers and Filtration Separation
- Tailings
- Thickeners and Water Recovery

ITT Engineered Valves offers you global experience, people and channel partners, engineering competencies, innovative technologies and worldwide locations to ensure that valve related disruptions are minimized in your mineral processing operations.

ITT Engineered Valves supplies valves for use in a wide variety of applications from the extremely abrasive slurry applications in concentrator plants to the highly corrosive applications of a heap leaching facility. Utilizing core competencies in abrasion and corrosion resistance, ITT Engineered Valves minimizes the Total Cost of Ownership of processing plant valves.



## BioPharm

Whether your process is manufacturing large molecule drugs for the BioPharm industry, biofuels, cosmetics or any high purity or aseptic process, ITT will combine decades of experience with cutting edge technology and a dash of ingenuity to provide value added solutions for your processing needs. ITT delivers reliable and process proven stainless steel hygienic diaphragm valves to the BioPharm industry within the following processes:

- Bioreactor
- Chromatography
- Filtration
- CIP
- WFI and other high purity water systems

The Pure-Flo hygienic diaphragm valve product line began in 1978 as an extension of the venerable Dia-Flo diaphragm valve product. The Pure-Flo brand has earned a reputation for innovation, quality and performance. Providing products from standard forged valves to the most innovative block technology, each and every Pure-Flo valve is engineered to the highest standards.

Keeping your process valves in good operating condition is critical in the regulated world of drug manufacturing. Don't risk your high value product because of a poor valve design or poor service. ITT and its distributor network make performance, inventory and service commitments to you. We understand how downtime for your equipment costs you money in lost productivity and disrupted schedules.



# Markets Served

## Power

ITT Engineered Valves has been servicing the Fossil and Nuclear power market for more than 60 years. Our diaphragm, knife gate, ball and safety shut-off valves can be found in hundreds of world wide installations. Recent surveys have shown that diaphragm valves installed some 50 years ago are still in operation with minimal maintenance. This excellence in service and understanding of the power market has led to product extensions in the area of corrosive, abrasive, and engineered solutions. Today you will find our products solving problems in:

- Demineralizer
- Condensate Polisher
- Burners and Igniters
- Coal Mill and Pulverizer Isolation
- Fly Ash and Bottom Ash
- Flue Gas Desulphurization
- Nuclear (Radioactive Service)

In addition the ITT Engineered Valves Lancaster, PA facility is one of the few remaining valve factories which hold an N-Stamp. Our strength is in understanding the power plant system and providing solutions targeted at solving problems. We will continue to evolve with the global power market by providing solutions grounded on understanding our customer's needs and sound engineering designs.



## Chemical and General Industry

The Chemical and General Industrial manufacturing sectors are dependent upon flow control in virtually every production process. ITT Engineered Valves has focused upon the most difficult applications with critical containment of gases and fluids that are often corrosive and abrasive. The breadth of our product line assures that we have the right solution for your specific application:

- Corrosive Chemicals - Acids, Bases, Aliphatic and Aromatic Hydrocarbons, De-mineralized water, Alcohol, Dies, Amino Acids, Bleach
- Abrasive Slurries - TIO<sub>2</sub>, Carbon Black, Food Stuffs, Fillers, Salts, Lime, Paint, Clay, Sewage, Silica, Sludge, Tooth Paste, Heavy Water, Calcium Carbonate
- Fugitive Emissions and Lethal Services - Bromine, Phosgene, Hydrogen Fluoride, Ammonia, VOC's, Steam and Chlorine Applications.
- General Industrial - Food Stuffs, Air, Alcohol, Asphalt, Beer, Caustic Soda, Edible Oils, Fertilizer, Glycol, Ink, Juice, Oils, Perfumes, Soap solution, Soup, Tomato Paste, Varnish, Water

The diversity built into the ITT Engineered Valves product portfolio allows for a variety of material combinations to be configured to meet an extensive array of media needs.





# Products and Services

## Dia-Flo® Diaphragm Valves

Dia-Flo diaphragm valves are engineered for the tough work environments of chemical processing, power generation, mining, pulp & paper, water treatment, food & beverage and pharmaceutical markets.

Dia-Flo features:

- Bubble tight shut-off – eliminates reliance on line pressures.
- Bonnet Isolation – separates working components from flow.
- Emissions control – no packing gland or packing
- In-Line Maintenance – removable top works for easy access

Available in a variety of material combinations in sizes from 1/2" – 12" (DN 15–300).



## Pure-Flo® High Purity Diaphragm Valves

The line of Pure-Flo valve bodies addresses the needs of the pharmaceutical, bioprocessing, and food & beverage industries for high quality, welded and quick disconnect process systems.

Pure-Flo features:

- Hygienic internal design easily cleaned and sterilized in place
- Biopharm industry proven diaphragm performance
- Compact bodies and topworks
- Minimized hold-up volumes
- Reliable operation in BioPharm applications
- Wide range of multivalve fabrications and integral blocks to optimize critical processes

Available in a variety of material and body type combinations in sizes from 1/4" – 6" (DN 6–150).



# Products and Services

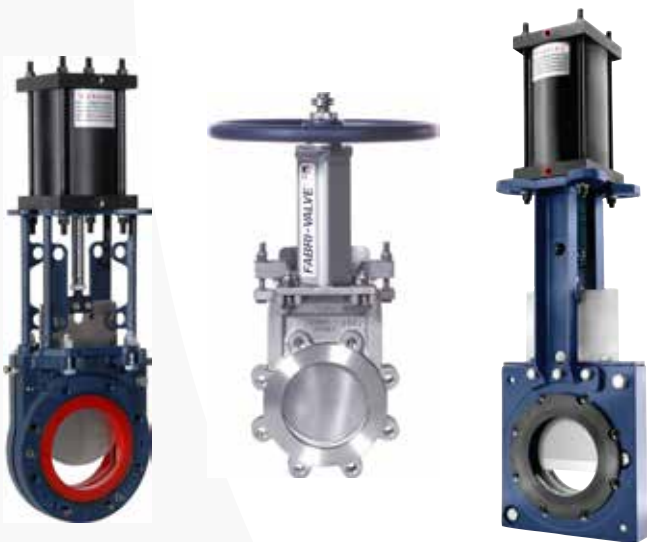
## Fabri-Valve<sup>®</sup> Knife Gate, Slide Gate, and Wedge Gate Valves

Fabri-Valve is a proven performer for application specific and general purpose valves in the mining, power, pulp and paper, waste water, chemical, petroleum and marine markets.

Fabri-Valve features:

- Bi-Directional Knife Gate – patented recessed seat designs
- Heavy-Duty Knife Gate – wide range of seat designs
- Ported Slide Gate – two constant contact steel reinforced elastomer seats.
- Materials of Construction – range from carbon steel to specialty Alloy and Fully Lined steel and plastic options.

Available in a variety of material combinations from 1/2" to 96" and larger.



## Skotch<sup>®</sup> Burner Safety Shut-Off Valves

Skotch burner safety shut-off valves for gas and oil fired systems combine the functions of three valves into one for increased safety, reliability and reduced installation complexity.

- Single valve unit – replaces traditional 3 valve system where double block and vent is required.
- Reduced installation complexity – requires only three simple connections; inlet, outlet, and vent.
- Compact design – saves space.
- Designed to comply with NFPA and IRI guidelines.
- Factory Mutual System Approvals: US Standards and Inspection Organization.

Available for gas-fired and oil-fired burners and igniters ranging from 1/2" to 6" (DN 15–150).



# Products and Services

## Cam-Tite® Hazardous and Critical Duty Ball Valves

Cam-Tite utilizes a unique non-spherical ball design to reduce inherent standard ball design limitations. Intended uses include demanding hazardous and corrosive environments within the chemical processing, nuclear and power generation markets.

Cam-Tite features:

- Low operating torque – unique design minimizes “breakaway torque”
- Positive shut off – at high and low pressures
- Increased seal life – Cam action reduces lateral loads
- Quality assured – every valve is tested in accordance with MSS-SP-72 and ANSI B16.34

Available in a variety of material combinations from 1/2” – 6” (DN 15–150).



## Cam-Line® Plastic Lined Ball Valves

The Cam-Line trunnion mount non-spherical ball design offers all plastic-lined wetted features with the benefits of the unique cam action. With special linings and optional PVDF coatings, Cam-line is ideal for highly corrosive applications in chemical industries.

Cam-Line Features:

- Cam design – provides tight shut-off, reliable stem seal, lower operating torque, reduced seat cold flow and prolonged seal life
- Trunnion support – removes excess loads from the seats
- Top-Entry – allows in-line maintenance and reduced pipe stress effect
- ETFE lining – mechanical toughness and broad resistance to chemical attack

Available in a variety of configurations from 3/4” to 6” (DN 20–150).





## **The Williams - Carver Co., Inc.**

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