

Thermoplastic Valves



INDUSTRIAL SYSTEMS

IPEX thermoplastic valves are part of the following PVF systems:

Xirtec140
PVC PROCESS PIPING SYSTEM

CORZAN[®]
CPVC PROCESS PIPING SYSTEM

enpure[™]
HIGH PURITY PP SYSTEM

SF POLYPRO
SOCKET FUSION POLYPROPYLENE SYSTEM

Duraplus[®]
ABS INDUSTRIAL SYSTEM

IPEX



Quality, Performance, Reliability



IPEX offers one of the most comprehensive ranges of high quality, high performance thermoplastic valves and actuation products available today. With more than 50 years of design and manufacturing experience, our lightweight, long life, maintenance free valves will save you time and money. Our high-tech automated manufacturing and testing facility ensures unparalleled reliability for each and every valve.

IPEX quality engineered products include many unique characteristics ranging from important safety features, to simple ergonomic and aesthetic benefits. Material options such as PVC, CPVC, PP, PVDF, and ABS make our corrosion resistant valves ideal for use in a wide variety of applications. Quarter turn

pneumatic and electric actuation, pneumatically actuated diaphragm valves, and many options and accessories allow for fully automated control. Whether a valve is required for isolation, diversion, control, or throttling, IPEX has a solution to meet your needs.

IPEX thermoplastic valves are part of our complete systems of pipe, valves, and fittings, engineered and manufactured to our strict quality, performance, and dimensional standards. Our network of manufacturing and customer service facilities across North America ensures fast, reliable service, and expert technical support.

APPLICATIONS

- Industrial Processes
- Chemical Production
- Water and Waste Water Treatment
- Irrigation
- Aquatic Life
- Pool and Spa
- General Plumbing



What type of valve should I use?

| | Ball Valves | Butterfly Valves | Diaphragm Valves | Check & Vent Valves | Specialty Valves |
|----------------------------|-------------|------------------|------------------|---------------------|------------------|
| On/Off Service | ✓ | ✓ | | | |
| High Capacity | ✓ | ✓ | | | |
| Throttling | | ✓ | ✓ | | |
| Quick & Frequent Cycling | ✓ | | | | ✓ |
| Slurries/Dirty Fluids | | ✓ | ✓ | | |
| Filtering | | | | | ✓ |
| Back Flow Prevention | | | | ✓ | |
| Air & Gas Release | | | | ✓ | |
| Electro-Mechanical Control | | | | | ✓ |
| Actuation | ✓ | ✓ | ✓ | | |

BALL VALVES



Ball valves are generally used for on/off service, but can range from simple molded-in-place construction to high-end industrial designs with many features and benefits. Multi-port ball valves allow for mixing, diverting, and bypassing flow. Extensive material options provide for complete chemical compatibility in highly corrosive processes. Many ball valves feature full port flow, blocking true union ends, and compact ergonomic designs allowing for simple installation and maintenance.

VKD Series Ball Valves

The next generation industrial valve features the patented Dual Block® system which allows locking of the union nuts in a preset position, assuring seal integrity under severe service conditions. A patented seat stop carrier, high quality stem and ball support system, integral mounting flange and bracketing, and a multifunctional locking handle (standard on sizes 2½" to 4") set this valve apart from the rest. The VKD is available in PVC, CPVC, PP, and ABS with PTFE seats and either EPDM or Viton® seals.

Pressure: up to 232 PSI at 73°F
depending on the material
Sizes: ½" – 4"



VX Series Ball Valves

These ultra-compact valves feature a full-port, bi-directional double block design. The true union style allows the valve to be easily removed from the piping system and fully serviced. A threaded seat stop carrier provides improved seal integrity under tough service conditions while the removable handle also functions as a tool for ball seat adjustment. The VX is available in PVC and CPVC with PTFE seats and either EPDM or Viton® seals.

Pressure: up to 232 PSI at 73°F
depending on the size
Sizes: ½" – 6"



VE Series Ball Valves

The VE is ideal for light industrial and water applications. It shares many features with the VX such as the ultra-compact double block design, and full port bi-directional operation. A threaded seat stop carrier provides improved seal integrity under tough service conditions while the removable handle also functions as a tool for ball seat adjustment. The VE is available exclusively in PVC with EPDM seals and either socket or threaded end connections.

Pressure: 232 PSI at 73°F
Sizes: ½" – 2"



MP Series Compact Ball Valves

Available in both Schedule 80 grey PVC and Schedule 40 white PVC, with either socket or threaded connections. EPDM seals and PTFE seats make this valve ideally suited to all kinds of plumbing and industrial applications where a compact, inexpensive on/off valve is required.

Pressure: 150 PSI at 73°F
Sizes: ½" – 2"



TKD Series 3-Way Ball Valves

The TKD offers a host of advanced features that set it apart from other multi-port valves. The patented seat stop carrier allows for in-line micro-adjustment of the ball seating, and features o-ring cushioning to minimize wear and prevent seizing. Integral mounting flange and bracketing allows for direct actuation and simple support, while a locking handle can prevent improper positioning. The TKD is available in PVC with PTFE seats and either EPDM or Viton® seals. Other materials are available upon request.

Pressure: 232 PSI at 73°F
Sizes: ½" – 2"



VT/VL Series 3-Way Ball Valves

Whether used for flow diverting, mixing or on/off isolation, these valves will replace a tee and two valve linkage assembly at reduced cost and space, along with shorter installation and maintenance times. In-line ball seat adjustments are easily achieved by tightening the union nuts. The VT/VL is available only upon special request, in PVC and PP with PTFE seats and either EPDM or Viton® seals.

Pressure: 150 PSI at 73°F
Sizes: ½" – 2"





BUTTERFLY VALVES

These highly versatile valves can be used for simple on/off service but also for processes requiring precise throttling. End-of-line installation of a lugged version allows for downstream piping disassembly with the upstream system still under pressure. The extensive size range and material availability make them suitable for a wide range of applications. With simple, direct mounting for actuation, automated process control can be easily achieved.

FK Series Butterfly Valves

The FK offers superior strength as well as excellent chemical resistance needed to operate in the corrosive environments often found near flanged connections. The special trapezoid shape of the liner and a serrated body cavity guarantee a bubble tight seal while keeping break-away torque at an absolute minimum. Double self-lubricating seals (available in either EPDM or Viton®), direct actuator mount capability, and choice of a lever handle or mounted gear box are just a few more features of this technologically advanced valve. The body is made of standard glass-filled PP while discs are available in PP, PVC, CPVC, PVDF, and ABS.

Pressure: up to 150 PSI at 73°F depending on the size
 Sizes: 1½" – 12"



FK Series Lugged Butterfly Valves

This FK version features the world's first integral lug design. Unlike other plastic butterfly valves, these valves feature stainless steel lugs permanently anchored in the body of the valve. This unique design provides for full bi-directional operation, and allows disassembly and assembly of the downstream flange connection without weakening the integrity of the upstream connection to the pressurized line. The same body, disc, and seal material options as the normal FK are available for the lugged version.

Pressure: up to 150 PSI at 73°F depending on the size
 Sizes: 2½" – 12"



FE Series Butterfly Valves

The FE incorporates many of the features and benefits of our industrial FK valve yet is one of the most competitively priced thermoplastic butterfly valves available today. The all PVC construction with EPDM liner makes this valve the perfect choice for applications ranging from swimming pools to chemical processes. The FE can be operated by either a lever handle or mounted gear box.

Pressure: up to 150 PSI at 73°F depending on the size
 Sizes: 1½" – 12"



QUARTER TURN AUTOMATION

Automation is an ideal solution for precise control of many valves in a system, when valves are remotely located, or when the process requires constant monitoring and adjustment. Pneumatic and electric actuators can be easily fitted on our ball, multi-port, and butterfly valves. Some features and functions include normally closed, normally open, or double-acting operation; corrosion resistant aluminum bodies, pre-loaded springs, and adjustable cams. Many accessories such as visual position indicators, limit switches, 3 and 4-way solenoids, and positioners are also available. For further information, please refer to the IPEX Industrial Technical Manual Volume IX entitled, "Quarter Turn Automation".

DIAPHRAGM VALVES

Diaphragm valves are the perfect solution when precise flow throttling is required. The weir style design - no dead space in the valve - is extremely good for abrasive slurries. These valves are widely used in high purity applications because their design prevents friction and subsequent particle creation when cycling. Many body and diaphragm material options are available as well as simple pneumatic actuation.



VM Series Diaphragm Valves

The VM series weir-style diaphragm valves are available in PVC, CPVC, PP, or PVDF, four body styles, and three choices of diaphragms (EPDM, Viton®, or PTFE). Able to be mounted in any position, the VM is ideal for either very clean or abrasive slurry applications. A unique and proprietary PTFE diaphragm design, available automation, and multiple accessories make this one of the most advanced and versatile lines in the industry.

Pressure: up to 150 PSI at 73°F
depending on the size
Size: ½" – 4"



DM Series Diaphragm Valves

Available in both PVC and CPVC, and with either an EPDM or Viton® diaphragm, its rugged construction allows the ultra-compact DM to handle even extremely aggressive media. The direct operation of the diaphragm does not require a closing spring, which makes the small DM particularly suitable when space is at a premium.

Pressure: up to 115 PSI at 73°F
depending upon the available control pressure
Sizes: ½" – 2"



DV Series Diaphragm Valves

The DV is a rugged industrial product ideal for throttling or use in abrasive slurry lines. The raising position indicator also functions as an adjustable travel stop. This feature can be used to avoid over-compression of the EPDM or PTFE diaphragm, or as a travel limiter allowing different settings for the "closed" position. The molded flanged body eliminates potentially leaky joints while featuring end-to-end dimensions identical to most plastic lined metal diaphragm valves, allowing for direct replacement.

Pressure: up to 150 PSI at 73°F
depending on the size
Size: ½" – 6"



Automation & Accessories

IPEX diaphragm valves can be pneumatically actuated providing precise control of critical applications. The normally closed (fail close), normally open (fail open), and double acting VM valves make up of one of the most extensive ranges in the industry. The actuated CM provides a compact solution to automated needs while the DM employs an efficient direct acting design. All pneumatic diaphragm valves can be outfitted with many options and accessories such as: stroke limiters, optical and electric position indicators, electro-pneumatic positioners, pilot valves, and various combinations thereof.



CM Series Compact Diaphragm Valves

The CM is a compact design with true union ends, available in PVC, CPVC, PP, or PVDF. With three diaphragm options (EPDM, Viton®, or PTFE), these manually operated or pneumatically actuated valves are ideal for OEMs. A standard position indicator and integrated mounting bushings complete the long list of features.

Pressure: up to 90 PSI at 73°F
Size: ½" in PVC and CPVC
16 mm – 20 mm in PP and PVDF





CHECK AND VENT VALVES

Check valves should be used whenever there is a need to prevent back-flow of process media. This may be when two incompatible fluids cannot be allowed to mix, or when reverse flow would cause undesirable drainage of a system line or tank. Many styles exist including: simple ball checks, heavy duty swing checks, and highly efficient piston checks. These valves are typically gravity operated and require very little back pressure to seal. Air release valves safely allow any entrapped air or gas to escape, avoiding damage to the piping system.

VB Series Ball Check Valves

As one of the most requested styles of check valves for smaller diameter plastic piping systems, these valves feature a true union design for simple maintenance. Full length guide ribs allow for maximum flow and minimum turbulence, preventing ball sticking and chatter. Very low back pressure is needed for positive shut off. The VB is available in PVC with either EPDM or Viton® seals, and CPVC with Viton® seals.

Pressure: 150 PSI at 73°F
 Sizes: ½" – 4"



VR Series Piston Check Valves

The VR features an all PVC construction of high performance components. This Y-pattern valve will perform equally as well in both vertical and horizontal orientations. With an increased flow rate yet low-return pressure positive seal, and top-entry maintenance, our VR piston check valve far exceeds the limited performance of other popular check valves. Both EPDM and Viton® seals are available.

Pressure: up to 232 PSI depending on the size
 Sizes: ½" – 4"



SC Series Swing Check Valves

The SC combines superior flow rate with maximum versatility. With stainless wetted parts and hardware, top entry design, and extremely low back pressure requirements, these flanged valves are the perfect choice for back-flow prevention in large diameter lines, both vertical and horizontal. The SC is available in PVC with either EPDM or Viton® seals.

Pressure: up to 100 PSI at 73°F
 depending on the size
 Sizes: 3" – 8"



VA Series Air Release Valves

The VA is one of only two such plastic valves in the industry, and the only one controlled by media and not pressure. Designed for tanks, slurries, or start-ups, the VA valve will economically and efficiently eliminate air or gas pockets as well as break potentially dangerous vacuums. This no-spill valve is offered in PVC with EPDM seals. Viton® sealing kits are also available.

Pressure: 232 PSI
 Sizes: ¾", 1¼" and 2"



Thermoplastic Valve Multimedia CD

IPEX recently launched an interactive CD which details the extensive features and benefits of all our thermoplastic valves. The comprehensive information contained within is useful for engineers, designers, installers, end users, and any others involved in specifying or operating these types of products.

Many aspects of valve selection, suitable applications, service considerations, and performance are covered to help the user better understand the use of valves in piping systems. Also included are details on product installations, as well as all relevant technical documentation.

Please complete and return the attached fax back card to obtain your copy.

SPECIALTY VALVES

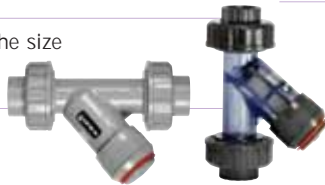
IPEX offers several specialized valves for some unique process requirements. Sediment strainers trap suspended particles flowing in the process line, ensuring that downstream components are protected. Solenoids are ideal for high-cycle applications where remote operation and precise control are important. Lab valves are an economical solution for small scale on/off requirements.



RV Series Sediment Strainers

The RV Y-pattern strainer protects critical pipeline components by removing solids and suspended impurities. Clear PVC construction allows for inspection of the screen while in service, whereas the bottom-entry design permits maintenance on the valve while in-line. The RV is available with either EPDM or Viton® seals, as well as in Corzan® CPVC.

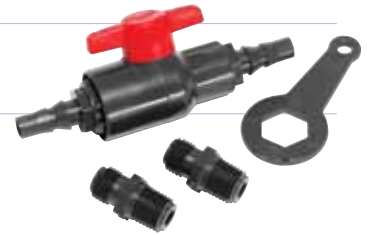
Pressure: up to 150 PSI depending on the size
Sizes: ½" – 4"



LV Series Laboratory Valves

The LV is an ingenious PVC quarter turn product supplied with an assortment of connections that match up with many kinds of pipe or hose.

Pressure: 150 PSI at 73°F
Sizes: ¼"



SF Series Solenoid Valves

The SF is a 100% duty cycle solenoid valve, and is available in PVC with EPDM or Viton® seals. Remote operation and a quick cycle time allow for precise control of media in automated applications. With their "shutter" design, standard manual override, and position indicator, these valves will outlast and outperform more conventional diaphragm-style solenoid valves.

Pressure: up to 60 PSI depending on the size
Sizes: ¼" and ½"



IPEX's Thermoplastic Valve Manual

IPEX has added Thermoplastic Valves to our series of Industrial Technical Manuals. The manual features detailed technical data and specifications for the following IPEX products:

- Ball Valves
- Butterfly Valves
- Diaphragm Valves
- Check and Vent Valves
- Specialty Valves



Please complete and return the attached fax back card to obtain your copy. For detailed information on quarter turn automation, please refer to Volume IX in our Industrial Technical Manual Series.

SALES AND CUSTOMER SERVICE

Canadian Customers call
Toll free: (866) 473-9462
www.ipexinc.com

U.S. Customers call
Toll free: (800) 463-9572
www.ipexamerica.com

About IPEX

IPEX is a leading supplier of thermoplastic piping systems. We provide our customers with one of the largest and most comprehensive product lines. All IPEX products are backed by over 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers, the IPEX name is synonymous with quality and performance.

Our products and systems have been designed for a broad range of customers and markets. Contact us for information on:

- PVC, CPVC, PP, FR-PVDF, ABS, PEX and PE pipe and fittings (1/4" to 48")
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- PE Electrofusion systems for gas and water
- Plumbing and mechanical piping systems
- Electrical systems
- Telecommunications and utility piping systems
- Irrigation systems
- Radiant heating systems
- Industrial, plumbing and electrical cements

IPEX. Your Industrial Specialist.

We build tough products for tough environment.®

WARRANTY: All of the company's Products are guaranteed against defects resulting from faulty workmanship or materials. The Company will replace, free of charge, including shipping charges for the replacement Products, any Products which are found to be defective in workmanship or material, provided that the following conditions are met:

- a) the Company is promptly notified in writing of such defect immediately upon discovery of same, and the defective Product is promptly returned to the Company;
- b) the defect is not due, without limitation, to faulty installation, misalignment of Products, vibration, ordinary wear and tear, corrosion, erosion, U.V. degradation, incompatible lubricants, pastes and thread sealants, unusual pressure surges or pulsation, water hammer, temperature shocking, or fouling; and
- c) the Products have not been altered or modified after leaving the Company's premises.

The warranty period can be specifically limited for certain Products as stated in writing in the Company's literature.

The Company will not allow claims for labor, materials and/or other expenses required to replace the defective Product, or to repair any damage resulting from the use thereof. The Company disclaims any responsibility for the Purchaser's calculations, product drawings or engineering design specifications. The Company's liability is limited to the purchase price applicable to the product.

It is agreed and understood that the Company's liability in respect to the sale is strictly limited to the replacement of Products as hereinbefore specified and that the Company shall not, in any event, be liable for any damages whether for the loss of use or business interruption or any other claim for incidental, consequential, special or punitive damages. There is no warranty, condition or representation of any nature whatsoever, expressed or implied, by statute or otherwise, except as herein contained, and the Company disclaims any implied warranties of merchantability and/or fitness of its Products for a special purpose.

This literature is published in good faith and is believed to be reliable. However IPEX does not represent and/or warrant in any manner the information and suggestions contained in this brochure. Data presented is the result of laboratory tests and field experience.

IPEX maintains a policy of ongoing product improvement. This may result in modifications of features and/or specifications without notice.



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INDUSTRIAL PIPING SYSTEMS

Xirtec® CORZAN®

IPEX Vinyl Process Piping Systems

Xirtec®140 (PVC) and Corzan® (CPVC) pipe, valves and fittings are high-performance systems designed to meet the temperature, pressure and size requirements of piping systems used in chemical processes and other industrial applications.



enpure™

High Purity Polypropylene Systems

For almost 20 years, Enpure™ has proven to be one of the most complete and dependable pure-water thermoplastic piping systems available.

Manufactured with FDA approved materials, Enpure™ natural polypropylene pipe, valves and fittings eliminate the potential of contamination of your pure process.



Duraplus®

ABS Industrial Systems

Duraplus® complete ABS pressure pipe, valves and fitting systems are ideal for abrasive slurries, separation reagents, caustic process, low temperature glycol systems and many other demanding applications including outdoor systems.



Duratec® AIRLINE SYSTEM **Duraplus®** air-line

Compressed Air Systems

Duratec Air-Line® is a flexible composite compressed air and inert gas system that combines the benefits of plastic and metal. Duraplus Air-Line® is a rigid system made of ABS. Both systems are corrosion resistant and easy to handle and install.



For more information or to be included on our mailing list for new product announcements, complete this card and fax it back to us at (905) 403-1124.

Name

Title

Dept.

Company

Address

City

Province

Postal Code

Phone

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E-mail

Company classification

- Contractor
- Distributor/Wholesaler
- Builder/Developer
- Engineering Firm
- OEM
- Utility
- Architect/Design Firm
- Government
- Education
- Other _____

SIC or industry sector:

I would like:

- Information on my closest IPEX distributor
- My copy of the new Thermoplastic Valve Multimedia CD
- My copy of the new Thermoplastic Valve Technical Manual

I am primarily interested in the following thermoplastics (check all that apply):

- Valves
- Compressed air systems
- Pipe
- Fittings
- Double containment systems
- Acid waste and drainage
- High purity systems
- Other _____

I would also like to know about other IPEX industrial products:

- Xirtec & Corzan process piping systems
- Duraplus Airline compressed air system
- Enpure high-purity polypropylene system

- Duraplus ABS industrial system
- SF polypropylene system
- Enfield electrofusion acid waste system
- Labline mechanical joint acid waste system
- Neutratanke neutralization tanks
- Neutrasystem2 pH monitoring
- Floway drains
- Guardian PVC and CPVC double containment systems
- Encase polypro double containment system
- CustomGuard specialty double containment systems
- Centra-Guard leak detection system
- IPEX ventilation system
- Grooved PVC pipe
- Well casing
- IPEX solvent cements

I would also like to know about other IPEX products:

- Plumbing and mechanical piping systems
- Electrical or telecommunications piping systems
- Municipal piping systems
- Irrigation piping systems
- Radiant heating systems for residential, commercial and/or industrial applications

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