

# DOUBLE CONTAINMENT PIPING SYSTEMS



INDUSTRIAL SYSTEMS

## YOUR INDUSTRIAL SPECIALIST

- Guardian™ Vinyl Double Containment Systems
- Drain-Guard™ Double Containment Systems
- Clear-Guard Double Containment System
- CustomGuard® Double Containment Systems
- Encase™ Acid Waste PP Double Containment System
- Centra-Guard™ Electronic Low Point Leak Detection
- IPEX PAL-AT Cable Leak Detection



We build tough products for tough environments®

# Leaks are **NOT** an option



Certain environments demand fail-safe systems. No leaks. No risk. The professionals at IPEX understand the complexity of design and installation for demanding double containment applications. And, unlike other manufacturers of double containment systems, our specialists are part of a division of IPEX dedicated solely to the design, production and installation of state-of-the-art double containment systems. With more than 25 years of experience and success, we are the proven experts.

The IPEX family of double containment systems includes: Guardian™ PVC and CPVC, Drain-Guard™ PVC and Clear-Guard™ PVC pressure and drainage systems, CustomGuard® FRP and metal pressure systems, Encase™ PolyPro drainage systems, Centra-Guard™ and PAL-AT leak detection systems.

Safety and environmental concerns are top priorities on today's industrial agenda. Reduction of emissions, energy conservation and prevention of ground water contamination are some of the areas where regulations are increasingly defining an important line between utilization and exploitation of our planet's resources.

For most common chemical-waste or process applications, IPEX offers systems that are both simple yet highly advanced state-of-the-art technologies. These systems utilize pre-assembled components that guarantee reliability, ease of installation, fewer joints (UP TO 40 – 60% LESS THAN CONVENTIONAL SYSTEMS) and quick delivery. With material choices that include Xirtec® PVC, Xirtec® CPVC, flame and non-flame retardant PP, the Guardian and Encase systems can proficiently handle a vast majority of applications.

# YOUR DOUBLE CONTAINMENT SPECIALIST

Guardian™

Drain-Guard™

Clear-Guard™

CustomGuard®

Encase™

Centra-Guard™



By investing heavily in people and technology, IPEX has amassed years of expertise in design and fabrication of double containment systems. In addition, IPEX is the only manufacturer of double containment systems offering all of the following:

- A specialized and dedicated division dealing exclusively with double containment.
- The ability to manufacture double containment components in-house.
- A variety of materials including thermoplastics, thermosets, metallic and dissimilar systems.
- Both drainage and pressure systems.
- A patented system with 40–60% FEWER JOINTS than conventional systems.
- Both off-the-shelf and custom-designed systems.
- Electronic low point as well as cable leak detection systems.



# GUARDIAN™ VINYL DOUBLE CONTAINMENT SYSTEMS



## Guardian™

For more than 25 years, Guardian™ systems have been the benchmark in pressure and drainage double containment. Guardian systems are available in tough industrial grade PVC and even tougher high temperature CPVC. Guardian's patented Centra-Lock design reduces the required joints by 40 - 60% COMPARED TO CONVENTIONAL SYSTEMS.

Material	Carrier	Containment
PVC	1/2" - 12"	2" - 18"
CPVC	1/2" - 12"	2" - 18"

Larger sizes are available on request.

**i** Made from PVC and CPVC, these systems offer a complete selection of pre-tested modular components that are considered unmatched in the industry.

FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

## SPECIFICATIONS

### MATERIAL SELECTION

Xirtec PVC and Xirtec CPVC are the chosen materials for the Guardian systems. IPEX controls not only the design and fabrication of the systems, but also the blending of the PVC resin, the extrusion and injection molding of most components. This unparalleled consistency of quality and resin as well as dimensional compatibility results in superior systems that are unmatched in the industry.

### DESIGN

Guardian systems offer a complete selection of pretested modular components which are extremely easy to install. Our Centra-lok™ patented design allows IPEX to offer vinyl systems which average up to 40 - 60% fewer overall joints and up to 10% fewer field joints compared to conventional systems. Since joints are always the most common source of premature failures and leaks, it is easy to realize the immense impact the Centra-lok design has on maintenance, repair and installation costs. The patented ingenuity and simplicity of the Centra-lok design also reduces the purchase cost of IPEX systems, making Guardian the industry's most cost-effective vinyl system. As with all our containment systems, the IPEX patented

Centra-Guard™ electronic low point leak detection or cable leak detection systems are also available.

### GENERAL

Each contained piping system shall consist of Xirtec PVC primary piping system supported within a Xirtec PVC secondary containment housing. Carrier fitting sizes 1/2" through 4" will use Centra-Lok [U.S. Patent No. 5,398,973] molded supports minimizing the number of field (factory assembled) fitting joints. Carrier sizes 6" and larger will use IPEX standard polypropylene fitting discs to support and centralize. Each system shall be provided with suitable drains and vents and be designed to provide complete drainage of both the primary and secondary containment piping. Interstitial supporting devices shall be made from Polypropylene Centra-Guide supports and shall be provided within the secondary containment pipe, and shall be designed to allow continuous drainage in the annular space to the drain points. Drain fittings shall be designed to allow a valve attachment to be made so that the secondary containment compartment may be readily drained and manually checked for leaks.

# DRAIN-GUARD™ DOUBLE CONTAINMENT SYSTEMS

## Drain-Guard™

The Drain-Guard™ system is available in tough industrial grade PVC enabling safety and reliability in Drain, Waste and Vent (DWV) applications. The patented Centra-Lok™ design reduces the required joints by 40 – 60% COMPARED TO CONVENTIONAL DOUBLE CONTAINMENT SYSTEMS.

Material	Carrier	Containment
PVC	1-1/2" – 12"	4" – 16"

Larger sizes are available on request.

**i** Our Drain-Guard system provides safe transport of sanitary or storm drainage in a variety of buildings, including hospitals, museums, historical sites, libraries, art galleries, theaters, data centers, restaurants, and arenas.

**FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.**

## SPECIFICATIONS

### MATERIAL SELECTION

Xirtec PVC is the chosen material for the Drain-Guard systems. IPEX controls not only the design and fabrication of the systems, but also the blending of the PVC resin, the extrusion and injection molding of most components. This unparalleled consistency of quality and resin as well as dimensional compatibility results in superior systems that are unmatched in the industry.

### DESIGN

The Drain-Guard system offers a complete selection of pretested modular components which are extremely easy to install. Our Centra-lok™ patented design allows IPEX to offer vinyl systems which average up to 40 – 60% fewer overall joints and up to 10% fewer field joints compared to conventional systems. Since joints are always the most common source of premature failures and leaks, it is easy to realize the immense impact the Centra-lok design has on maintenance, repair and installation costs. The patented ingenuity and simplicity of the Centra-lok design also reduces the purchase cost of IPEX systems. As with all our containment systems, the IPEX patented Centra-Guard™ electronic low point

leak detection or cable leak detection systems are also available.

### GENERAL

Each contained piping system shall consist of Xirtec PVC primary piping system supported within a Xirtec PVC secondary containment housing. Carrier fitting sizes 1-1/2" through 4" will use Centra-Lok [U.S. Patent No. 5,398,973] molded supports minimizing the number of field (factory assembled) fitting joints. Carrier sizes 6" and larger will use IPEX standard polypropylene fitting discs to support and centralize. Each system shall be provided with suitable drains and vents and be designed to provide complete drainage of both the primary and secondary containment piping. Interstitial supporting devices shall be made from Polypropylene Centra-Guide supports and shall be provided within the secondary containment pipe, and shall be designed to allow continuous drainage in the annular space to the drain points. Drain fittings shall be designed to allow a valve attachment to be made so that the secondary containment compartment may be readily drained and manually checked for leaks.



# THE CLEAR-GUARD™ OPTION



## Clear-Guard™

Clear-Guard™'s fail-safe, fully pressure rated clear containment system allows for easy detection of leaks and eliminates the risks associated with piping aggressive chemicals overhead. Clear-Guard utilizes Guardian's patented Centra-Lok fitting design, which reduces the required joints by 40 – 60% COMPARED TO CONVENTIONAL SYSTEMS. Fittings are available in clear or opaque containment fittings.

Material	Carrier	Containment
Clear-Guard PVC	–	2" – 8"

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## SPECIFICATIONS

### MATERIAL SELECTION

Clear-Guard utilizes a fail-safe, fully pressure rated clear PVC that uses a solvent cement joining method identical to traditional vinyl pressure pipe. This eliminates the need for expensive caulking guns and epoxy adhesive for assembly. Clear-Guard can be used in conjunction with both Schedule 40 and 80 Xirtec PVC or Schedule 80 Xirtec CPVC Primary pipe.

### GENERAL

Each contained piping system shall consist of Xirtec PVC or Xirtec CPVC primary piping system supported within a Clear-Guard Schedule 40 clear PVC secondary containment housing. Carrier fitting sizes 1/2" through 4" will use Centra-Lok [U.S. Patent No. 5,398,973] molded supports minimizing the number of field (factory assembled) fitting joints. Each system shall be provided with suitable drains and vents and be designed to provide complete drainage of both the primary and secondary containment piping. Interstitial supporting devices shall be made from Polypropylene Centra-Guide supports and shall be provided within the secondary containment pipe, and shall be designed to allow continuous drainage in the annular space to the drain points. Drain fittings shall be designed to allow a valve attachment to be made so that the secondary containment compartment may be readily drained and manually checked for leaks.



# THE CUSTOMGUARD® OPTION



## CustomGuard®

Custom-designed and fabricated double containment systems including dissimilar material systems, CustomGuard® is unlike other systems that try to run everything through the same material. Our specialists will recommend and provide the absolute best system for each individual application, looking not only at chemical compatibility but also at cost (material and installation), life expectancy and turn around time.

For applications with more demanding mechanical, chemical and/or thermal requirements, IPEX has developed our CustomGuard offering. CustomGuard includes a variety of different system choices ranging from Fluoropolymers (e.g. PVDF), Thermosets (FRP); and carbon and stainless steel to hybrid combinations. Applications that require such materials are obviously complex, each demanding expertise and specialized knowledge to design an effective system. The CustomGuard option includes material selection, design, specification support (if needed) and fabrication of pre-assembled spooled pieces to minimize installation time and field joints.

Material	Carrier	Containment
FRP/Metals/Dissimilar	1/2" – 20"	2" – 26"



Together with Encase and Guardian, Custom Guard sets IPEX apart from any other double containment system. Custom Guard is available in several different materials. Unlike other manufacturers, IPEX is not constrained by a limited material selection. This variety enables IPEX to provide customers with the best solution for their double containment needs.

## SPECIFICATIONS

### MATERIAL SELECTION

Carbon and stainless steel, copper, fiberglass (polyester and vinylester resins), PVDF, PP and dissimilar materials, are all available in CustomGuard® systems. This comprehensive offering, unmatched by any one company, gives IPEX the unique ability to examine just about any double containment requirement and truly offer the best suited, most cost-effective system. While other manufacturers have vested interests in recommending their one and only material/system, IPEX isn't confined by that limitation.

### DESIGN

Drawing on more than 25 years of experience in double containment, IPEX has developed a variety of product-specific designs to maximize efficiency and reduce installation costs. As with all our containment systems,

## FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

our own patented Centra-Guard™ electronic low point or cable leak detection systems are also available.

### GENERAL

Each contained piping system shall consist of a primary piping system supported within a secondary containment housing. Each system shall be provided with suitable drains and vents and be designed to provide complete drainage of both the primary and secondary containment piping. Interstitial supporting devices shall be made from Polypropylene Centra-Guide supports and shall be provided within the secondary containment pipe, and shall be designed to allow continuous drainage in the annular space to the drain points. Drain fittings shall be designed to allow a valve attachment to be made so that the secondary containment compartment may be readily drained and manually checked for leaks.

# ENCASE™ ACID WASTE PP DOUBLE CONTAINMENT



At the heart of our patented Encase™ polypro system is its electrofusion fitting with a groundbreaking heavy-gauge resistance wire molded into the socket. The result is a premier system that offers considerable reduction of installation time and the highest quality leak free joints available.

Material	Carrier	Containment
PP	1-1/2" – 8"	4" – 12"

**i** Encase is a polypropylene piping system that uses proven Enfusion joining methods to provide an easy-to-install, safe, reliable and cost-effective method to convey chemical waste under gravity-flow conditions.

## ADVANTAGES

### POLYPROPYLENE MATERIAL

- 30 YEARS of success in chemical waste applications
- High corrosion resistance
- Wide temperature range
- Excellent chemical resistance

### SAME MATERIAL INSIDE AND OUT

- Eliminates differential expansion problems
- Chemical resistance is the same for the entire piping system
- System integrity is maintained in the event of a primary pipe leak

### RESTRAINED SYSTEM

- Expansion anchor plates are installed on each fitting to control expansion
- No expansion loops necessary

### FULL PRODUCT RANGE

- 1-1/2" to 8" primary sizes available
- Manufactured in both non-flame retardant as well as flame retardant material for above ground installation

### DRAINAGE PATTERN FITTINGS

- Ensures smooth chemical flow.
- Enfield piping has been used for chemical waste for over 30 years

### MODULAR DESIGN

- Components are factory fabricated. The only site joining necessary is the fusion of couplings to pipes and fittings
- Reduces labor costs

### FULL PRODUCT BACKUP

- Expert personnel are available to assist in every facet of the Encase product

### FAST JOINING METHOD

- All site joints are made by electrofusion using an Enfusion Hand Held Unit.
- Quick and simple to make without the need for costly and cumbersome butt fusion machines
- Proven technology
- Narrower trench widths than for butt fusion, resulting in quicker and cheaper installation
- Joints can be made in the trench which reduces installation time
- Automatic microprocessor-controlled Enfusion unit ensures joint repeatability

### EASY SYSTEM TESTING

- The primary pipe can be inspected and tested prior to closing the secondary joint (impossible with butt-welded systems)
- Any suspect primary joints can be re-fused prior to final closure of the secondary pipe

### LEAK DETECTION COMPATIBLE

- Encase is compatible with all common types of leak detection systems
- Upon request, pipe is furnished with knot-free twine to allow insertion of a pull rope for leak detection cable installation minimizing installation time.





## SHORT FORM SPECIFICATIONS

### GENERAL

Acid waste double containment drain lines shall be Encase, manufactured by IPEX, with no substitutions. Pipe and fittings shall be manufactured from Schedule 40 polypropylene and joined by the Enfusion method.

### MATERIAL

Pipe, fittings, internal pipe supports and anchor plates shall be manufactured from Type 110 homopolymer or Type 210 copolymer polypropylene material as described in ASTM D4101.

### PIPE AND FITTINGS – CONSTRUCTION

All pipe fittings shall be factory assembled and of unitized construction, with the primary and secondary components integrally anchored together to prevent movement of the primary pipe/fitting with in the containment pipe/fitting. All piping components shall be manufactured to Schedule 40 dimensions. The primary pipe shall be adequately supported by means of support plates welded to the primary pipe. Anchor plates shall be provided at each end of the pipe/fitting section to restrain pipe expansion. All anchor plates must be mechanically located in a machined recess on the inside of each secondary pipe/fitting and welded to both the primary and secondary pipe/fitting sections.



### FACTORY WELDED JOINTS

All factory joints shall be made either by butt fusion or Enfusion. Joining by means of fillet welding is expressly forbidden.

### SITE JOINTS

All site joints shall be made using Enfusion couplings, manufactured from polypropylene with a nickel/chrome resistance wire, molded in place. Components with copper wire elements are prohibited. Solvent, butt-welded or fillet-welded site joints are also prohibited.

### INSTALLATION

Installation shall be in accordance with the contract drawings, the manufacturer's recommendations and the local plumbing code. The entire installation shall be installed in proper alignment and free of stress.

### TESTING

The system shall be tested in accordance with the manufacturer's recommendations and the local plumbing code. The primary pipe shall be tested prior to making the secondary joints. If Secondary pipe cannot be hydro-tested, as determined by the engineer or authority having jurisdiction, then the use of nitrogen or air at a MAXIMUM 5 psi (gauge) shall be allowed. It is imperative that a working-pressure regulator be used during the pneumatic test to ensure that over-pressurization of the PVC, beyond 5 psi, cannot occur. The following must also be noted: Air or nitrogen under pressure is compressed and therefore poses a potential hazard. If a failure of the pipe or fitting occurs during such test, the air exits at the failure point and expands rapidly. This increase in velocity can cause the system to fail in a catastrophic mode. Therefore during such air test all personnel involved in the test or present in the test surrounding area must be aware of such a possibility and take all necessary precautions. Precautions include, but are not limited to, taking extreme care not to impact or damage the system in any way. Such procedure is a limited exception to IPEX standard policy which forbids the use of its rigid systems with any compressed gases.

# ELECTRONIC LOW POINT LEAK DETECTION SYSTEM



FOR PRICING  
CONTACT YOUR IPEX  
REPRESENTATIVE.

## Centra-Guard™

In many situations, double containment protection by itself may not be enough. In these applications it is critical that a leak is immediately detected and located.

Although many different leak detection systems are available on the market today, only the Centra-Guard™ patented electronic low point leak-detection system offers a combination of advanced features:

### KEY FEATURES

- No cables to string during installation
- No false alarms due to condensation
- Non-intrusive, re-usable capacitive proximity sensors with sensitivity adjustment
- NEMA 4X enclosed microprocessor control panel with audible and visual alarms
- LCD screen continuously reads system status and reports alarms
- HMI push buttons allow for history, status, and test screens to be accessed
- Multi-level password protection
- Standard output relay for direct communication with plant control systems

Centra-Guard electronic low point leak detection offers versatility, customization and lower material, installation and maintenance costs when compared to cable leak detection.

### OVERVIEW

The basic concept behind electronic low point leak detection is that a Double contained piping system is designed with leak detection zones. Leak detection zones are essentially a drip leg in the containment piping. Each zone is monitored by a sensor that raises an alarm to warn operators that a leak has been detected. The IPEX Centra-Guard leak detection system will identify the type of alarm (i.e. leak or cable break), zone, and time and record it in non-volatile memory as well as relay the signal to a plant control system. This allows operators to quickly rectify the situation. Centra-Guard is the only non-intrusive leak detection system available on the market today. The sensor never comes in contact with the media.

### APPLICATIONS

Above-ground suspended pipeline applications, with sensors housed in a saddle-type clamp, as well as underground pipeline systems with drip leg assembly.

# CABLE LEAK DETECTION

## IPEX PAL-AT

IPEX PAL-AT cable leak detection is a microprocessor based system that offers continuous leak detection. The system is fully automated, and ideal for buried double containment piping applications that require exact leak location.

The IPEX PAL-AT continuous cable leak detection system compliments our Centra-Guard electronic low point leak detection system and adds extra versatility to our extensive double containment offering.

### KEY FEATURES

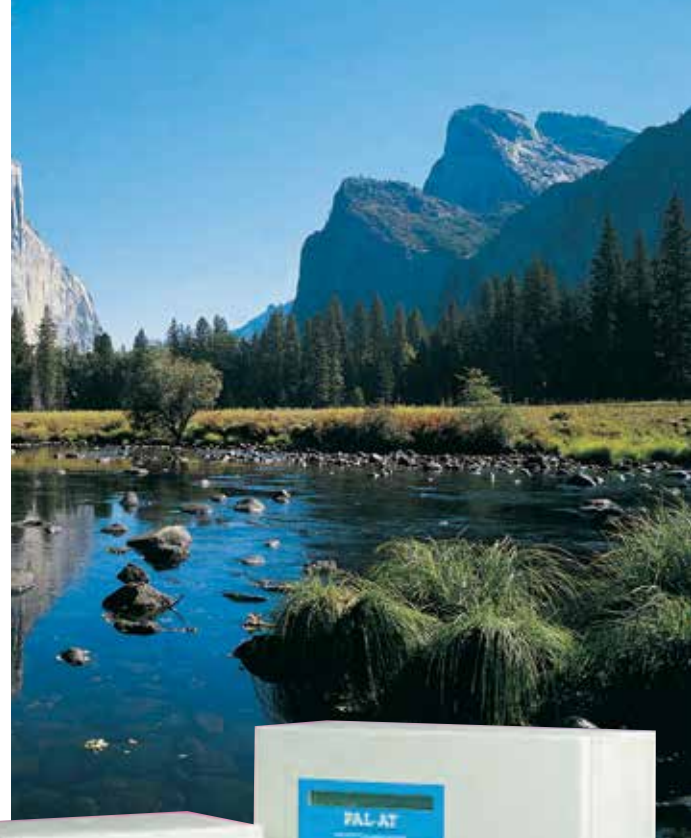
- Coaxial Sensing Cable with adjustable sensitivity
- Microprocessor based monitoring unit capable of monitoring 2000, 5000, or 7500ft of cable per sensor string
- Panel will identify the type of alarm (leak/break/short/probe) as well as location within 5 feet of the source
- Backlit LCD providing constant system data
- Continuous monitoring even after a leak is detected

### OVERVIEW

The basic concept behind cable leak detection is that a monitor detects any changes in the electrical properties of the cable caused by contact with a liquid. The cable is pulled through the interstitial space of the containment piping. The monitor then raises an alarm in the plant to warn operators that a leak has been detected. The IPEX PAL-AT detection system will pinpoint the leak and report its location. This allows operators to quickly rectify the situation.

### APPLICATIONS

Underground pipeline systems that require exact leak location detection.



FOR PRICING CONTACT YOUR  
IPEX REPRESENTATIVE.

# SAMPLE MATERIAL OPTIONS

## CHOOSE FROM A WIDE RANGE OF SYSTEM OPTIONS

IPEX offers an extremely wide array of materials and sizes. You can specify virtually any piping material to create a system that contains whatever corrosive or hazardous substance your application handles. If you don't see what you need listed here, call us! Other systems or sizes may be available, or we may have suggestions for substitutions.

Carrier	SYSTEM Containment	CARRIER Size inches
PVC 80	PVC 80	1/2 – 12
PVC 80	PVC 40	1/2 – 12
PVC 40	PVC 40	1/2 – 12
PVC DWV	PVC DWV	1-1/2 – 12
PVC 80	CS SCH 10	1/2 – 12
CPVC 80	CPVC 80	1/2 – 8
CPVC 80	PVC 80	1/2 – 12
CPVC 80	PVC 40	1/2 – 12
CPVC 80	CS SCH 10	1/2 – 12
NAT PP 80	PVC 80	1/2 – 2
NAT PP 80	PVC 40	1/2 – 2
RED PVDF 80	CPVC 80	1/2 – 2
RED PVDF 80	PVC 80	1/2 – 2
NAT PVDF 80	PVC 80	1/2 – 2
ENFUSION PP	PVC DWV	1/2 – 6
S40 A53B CS BW	PVC 80	1/2 – 8
S40 A106B CS BW	PVC 80	1/2 – 8
S80 A106B CS SW	PVC 80	1/2 – 8
S40 A53B CS BW	FRP	1/2 – 2
S40 A106B CS BW	FRP	1/2 – 2
S80 A106B CS SW	FRP	1/2 – 2
S40 A106 SMLS BW	PVC 40	1/2 – 8
S40 A53 CS BW	PVC 40	1/2 – 8
S80 A53 CS SW	PVC 80	1/2 – 2
S80 A53 CS SW	FRP	1/2 – 2
S40 A53 CS SW	S40 A53 CS	1/2 – 2
S40 A106B CS SW	PVC 80	1/2 – 2
S80 A53B CS BW	PVC 80	1/2 – 8
S80 A106B CS SW	PVC 80	1/2 – 2
S40 A106 CS SW	FRP	1/2 – 2
S80 A53B CS BW	FRP	1/2 – 2
S80 A106B CS BW	FRP	1/2 – 2
S40 A53 CS	S40 A53 CS	1/2 – 12
S40 A53 CS SW	PVC 40	1/2 – 2
S40 A53 CS SW	S10 A53 CS	1/2 – 12

Carrier	SYSTEM Containment	CARRIER SIZE inches
S40 A53 CS SW	FRP	1/2 – 2
S40 A53 CS SW	PVC 80	1/2 – 2
S80 A53B CS SW	PVC 80	1/2 – 2
S10 T304L SS BW	PVC 80	1/2 – 8
S10 T304L SS BW	PVC 40	1/2 – 8
S10 T304L SS BW	CPVC 80	1/2 – 8
S10 T304L SS BW	FRP	1/2 – 2
S10 T304L SS BW	S10 T304L	1/2 – 12
S40 T316L SS BW	PVC 80	1/2 – 8
S40 T316L SS BW	CPVC 80	1/2 – 8
S40 T316L SS BW	FRP	1/2 – 2
S40 T304L SS SW	PVC 80	1/2 – 2
S40 T304L SS SW	PVC 40	1/2 – 2
S40 T304L SS SW	CPVC 80	1/2 – 2
S40 T304L SS SW	FRP	1/2 – 2
S10 T316L SS SW	PVC 80	1/2 – 2
S10 T316L SS SW	CPVC 80	1/2 – 2
S10 T316L SS SW	FRP	1/2 – 2
S40 T304L SS BW	PVC 80	1/2 – 8
S40 T304L SS BW	PVC 80	1/2 – 8
S40 T304L SS BW	CPVC 80	1/2 – 8
S40 T304L SS BW	FRP	1/2 – 2
S10 T316L SS BW	PVC 80	1/2 – 8
S10 T316L SS BW	CPVC 80	1/2 – 8
S10 T316L SS BW	FRP	1/2 – 2
S10 T304L SS SW	PVC 80	1/2 – 2
S10 T304L SS SW	PVC 40	1/2 – 2
S10 T304L SS SW	CPVC 80	1/2 – 2
S10 T304L SS SW	FRP	1/2 – 2
S10 T304L SS SW	S10 T304L	1/2 – 2
S40 T316L SS SW	PVC 80	1/2 – 2
S40 T316L SS SW	CPVC 80	1/2 – 2
S40 T316L SS SW	FRP	1/2 – 2
HARD COPPER	PVC 40	1/2 – 4
HARD COPPER	3000 FRP	1/2 – 2

NAT – Natural  
RED – Red  
PP – Polypropylene

CS – Carbon Steel  
SS – Stainless Steel

SW – Socket Weld  
BW – Butt Weld

# Industrial Waste



## YOUR DOUBLE CONTAINMENT & LEAK DETECTION SPECIALIST

Certain environments demand fail-safe systems. No leaks. No risk. The professionals at IPEX understand the complexity of design and installation for demanding double containment applications. And, unlike other manufacturers of double containment systems, our specialists are part of a division of IPEX dedicated solely to the design, production and installation of state-of-the-art double containment systems. With more than 25 years of experience and success, we are the proven experts.

The IPEX family of double containment systems includes: Guardian™ PVC and CPVC, Drain-Guard™ PVC and CPVC and Clear-Guard™ PVC pressure and drainage systems, CustomGuard®

FRP and metal pressure systems, Encase™ PolyPro drainage systems, and Centra-Guard™ leak detection systems.

Safety and environmental concerns are top priorities on today's industrial agenda. Reduction of emissions, energy conservation and prevention of ground water contamination are some of the areas where regulations are increasingly defining an important line between utilization and exploitation of our planet's resources.

For most common chemical-waste or process applications, IPEX offers systems that are both simple yet highly advanced state-of-the-art technologies.



Guardian™ Drain-Guard™ Clear-Guard™  
CustomGuard® Encase™ Centra-Guard™



Double Containment  
Systems

# INDUSTRIAL PRODUCTS

## Xirtec® PVC – Xirtec® CPVC

1/2" – 24" (12mm – 600mm)

Xirtec®: PVC Sch. 40 & 80 pipe & fittings systems.

Xirtec®: CPVC Sch. 80 pipe & fittings systems  
cell classification 24448 & 23447



## PROCESS PIPING SYSTEMS



## Duraplus™ ABS Industrial

3/8" – 12" (10mm – 300mm)

Complete ABS pressure pipe, valves & fitting systems.



## Enpure™

1/2" – 4" (12mm – 100mm)

High-purity polypropylene pipe, valves and fittings with a socket fusion joining system.



## ACID WASTE SYSTEMS



## Enfield™

1-1/2" – 12" (40mm – 300mm)

Electrofusion acid waste system consists of Polypropylene Schedule 40 & 80 IPS pipe and fittings.



## Plenumline™

1-1/2" – 4" (40mm – 100mm)

Flame-retardant PVDF mechanical joint acid waste system suitable for return air plenum high-temperature corrosive chemical waste applications.



## Labline®

1-1/2" – 4" (40mm – 100mm)

Mechanical joint acid waste system in polypropylene Schedule 40 & 80 IPS pipe (flame-retardant and non-flame-retardant) and fittings.



# THERMOPLASTIC VALVES

## Thermoplastic Valves

1/2" – 16" (12mm – 400mm)

IPEX offers a variety of manual & actuated valves in PVC, CPVC, PP, PVDF and ABS.



## Duratec® Airline

1/2" – 1" (12mm – 25mm)

Composite pipe and fittings for conveying compressed air and inert gases.



# COMPRESSED AIR

## Duraplus™ Airline

1/2" – 8" (12mm – 200mm)

A high-impact, ductile ABS pressurized piping system for conveying compressed air.



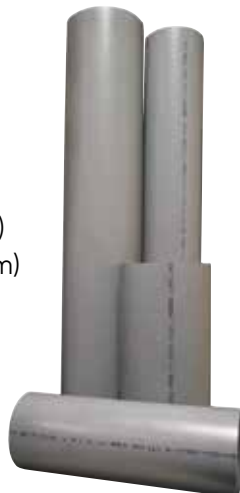
# SPECIALTY PRODUCTS

## Ventilation Duct

PVC 6" – 24" (150mm – 600mm)

CPVC 6" – 18" (150mm – 400mm)

Seamless PVC and CPVC ventilation duct systems for corrosive fume handling applications.



## Well Casings

2" – 16" (50mm – 400mm)

PVC corrosion-resistant, maintenance-free casings for well-drop-pipe and submersible pumps.



## Grooved PVC Pipe

2" – 24" (50mm – 600mm)

Schedule 40, SDR 26 and SDR 21 factory-grooved PVC pipe.



## SALES AND CUSTOMER SERVICE

IPEX Inc.

Toll Free: (866) 473-9462

[ipexna.com](http://ipexna.com)

### About the IPEX Group of Companies

As leading suppliers of thermoplastic piping systems, the IPEX Group of Companies provides our customers with some of the largest and most comprehensive product lines. All IPEX products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have earned our reputation for product innovation, quality, end-user focus and performance.

Markets served by the IPEX Group of Companies include:

- Electrical systems
- Telecommunications and utility piping systems
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

Products are manufactured by IPEX USA LLC. and/or IPEX Inc.

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