

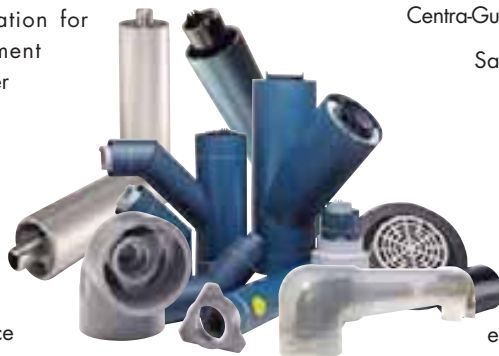
Industrial Waste



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 20 years of experience and success, we are the proven experts.

The IPEX family of double containment systems includes: Guardian™ PVC and CPVC, and Clear-Guard™



PVC pressure and drainage systems, Encase™ PolyPro drainage systems, CustomGuard® FRP and metal pressure 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™ **Encase™** **CustomGuard®** **Centra-Guard™** **Clear-Guard™**

Vinyl Double Containment Systems

PP Double Containment System

Specialty Double Containment Systems

Double Containment Leak Detection System



Double Containment Systems

We build tough products for tough environments®

Products are manufactured by IPEX Inc. Guardian™, Encase™, CustomGuard®, Centra-Guard™, and Clear-Guard™ are trademarks of IPEX Branding Inc.

Call 1-800-473-9462 or visit www.ipexinc.com

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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% less) and quick delivery.

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.

Double Containment Systems



Encase 44

Guardian 50

Customguard 51

Clear-Guard 52

Centra-Guard 53

ENCASE ACID WASTE PP DOUBLE CONTAINMENT

1-1/2" - 8" (38mm - 200mm)

Encase™

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 bubble-tight joints available.

i DID YOU KNOW?

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

- 1 Polypropylene Material**
 - Thirty years of success in chemical waste applications
 - High corrosion resistance
 - Wide temperature range
 - Excellent chemical resistance
- 2 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
- 3 Restrained System**
 - Expansion anchor plates are installed on each fitting to control expansion
 - No expansion loops necessary
- 4 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
- 5 Drainage Pattern Fittings**
 - Ensures smooth chemical flow.
 - Enfield piping has been used for chemical waste for over 23 years
- 6 Modular Design**
 - Components are factory fabricated. The only site joining necessary is the fusion of couplings to pipes and fittings
 - Reduces labor costs
- 7 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
- 8 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
- 9 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.
- 10 Full Product Backup**
 - Expert personnel are available to assist in every facet of the Encase product



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 1 homopolymer or Type 2 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.


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



PRODUCT SELECTION CHART

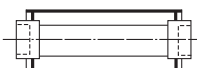
Dimension inches		Product Code
Primary	secondary	

Schedule 40 Pipe Soc x Sp (20' Nominal Lengths)



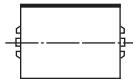
Dimension inches	Product Code
1-1/2	246040
2	246050
3	246060
4	246070
6	246020
8	246030

Schedule 40 Pipe Spool Soc x Soc (5' Nominal Lengths)



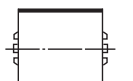
Dimension inches	Product Code
1-1/2	231313
2	231314
3	231315
4	231316
6	231311
8	231312

Secondary Coupling Soc



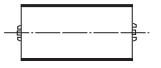
Dimension inches	Product Code	
-	4	231114
-	4	231116
-	6	231118
-	8	231110
-	10	231112

Primary Coupling Soc



Dimension inches	Product Code	
1-1/2	-	257141
2	-	257147
3	-	257150
4	-	257154
6	-	257158
8	-	257161

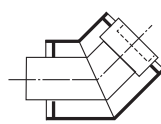
Secondary Repair Coupling Soc



Dimension inches	Product Code	
-	4	231004
-	6	231006
-	8	231008
-	10	231010
-	12	231009

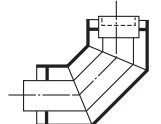
Dimension inches		Product Code
Primary	secondary	

1/8 Bend Soc x Sp



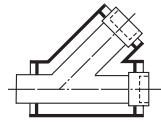
Dimension inches	Product Code
1-1/2	231141
2	231142
3	231143
4	231144
6	231139
8	231140

1/4 Bend Soc x Sp



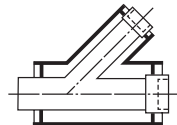
Dimension inches	Product Code
1-1/2	231134
2	231135
3	231136
4	231137
6	231132
8	231133

45° Wye Soc x Sp x Soc



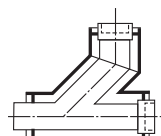
Dimension inches	Product Code	
1-1/2	4	231153
2	4	231154
3	6	231155
4	8	231156
6	10	231151
8	12	231152

Reducing Wye Soc x Sp x Soc



Dimension inches	Product Code	
2 x 1-1/2	4 x 4	231187
3 x 1-1/2	6 x 4	231188
3 x 2	6 x 4	231189
4 x 2	8 x 4	231190
4 x 3	8 x 6	231191
6 x 2	10 x 4	231181
6 x 3	10 x 6	231182
6 x 4	10 x 8	231183
8 x 3	12 x 6	231184
8 x 4	12 x 8	231185
8 x 6	12 x 10	231186

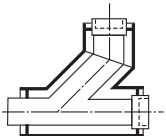
Combination Wye & 1/8 Bend Soc x Sp x Soc



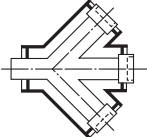
Dimension inches	Product Code	
1-1/2	4	231203
2	4	231204
3	6	231205
4	8	231206
6	10	231201
8	12	231202

Encase components should only be joined using IPEX Control Units. NFRPP is the standard material of construction for all Encase components. FRPP is available on request.

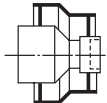
PRODUCT SELECTION CHART

	Dimension inches		Product Code
	Primary	secondary	
	2 x 1-1/2	4 x 4	231227
	3 x 1-1/2	6 x 4	231228
	3 x 2	6 x 4	231229
	4 x 2	8 x 4	231230
	4 x 3	8 x 6	231231
	6 x 2	10 x 4	231221
	6 x 3	10 x 6	231222
	6 x 4	10 x 8	231223
	8 x 3	12 x 6	231224
	8 x 4	12 x 8	231225
	8 x 6	12 x 10	231226

Double Wye Soc x Sp

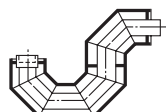
	1-1/2	4	231243
	2	4	231244
	3	6	231245
	4	8	231246
	6	10	231241
	8	12	231242

Reducing Coupling Soc x Sp


	2 x 1-1/2	4 x 4	231347
	3 x 1-1/2	6 x 4	231348
	3 x 2	6 x 4	231349
	4 x 1-1/2	8 x 4	231324
	4 x 2	8 x 4	231350
	4 x 3	8 x 6	231351
	6 x 1-1/2	10 x 4	231352
	6 x 2	10 x 4	231341
	6 x 3	10 x 6	231342
	6 x 4	10 x 8	231343
	8 x 3	12 x 6	231344
	8 x 4	12 x 8	231345
	8 x 6	12 x 10	231346

P-Trap Soc x Sp


	1-1/2	4	231361
	2	4	231372

	Dimension inches		Product Code
	Primary	secondary	
	3	6	231373
	4	8	231374
	6	10	231371
	8	12	231375

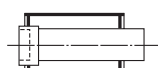
Floor Drain Sp

	1-1/2	4	231400
	2	4	231402
	3	6	231403
	4	8	231404
	6	10	231401

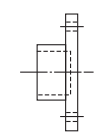
End Cap Soc

	1-1/2	-	231462
	2	-	231463
	3	-	231464
	4	-	231465
	6	-	231466
	8	-	231467
	10	-	231832
	12	-	231833

End Seal Soc x Sp

	1-1/2	4	231483
	2	4	231484
	3	6	231485
	4	8	231486
	6	10	231481
	8	12	231482

Flange - ASA 150 Soc

	1-1/2	-	257361
	2	-	257365
	3	-	257366
	4	-	257367
	6	-	257368
	8	-	257369
	10	-	257362
	12	-	257363

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PRODUCT SELECTION CHART

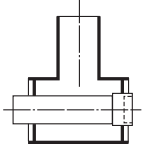
Dimension inches		Product Code
Primary	secondary	

Blind Flange - ASA 150



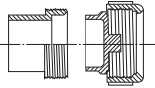
Dimension inches		Product Code
Primary	secondary	
1-1/2	-	231453
2	-	231454
3	-	231455
4	-	231456
6	-	231457
8	-	231458
10	-	231451
12	-	231452

Access Tee Soc x Sp x Sp



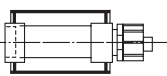
Dimension inches		Product Code
Primary	secondary	
1-1/2	4	231425
2	4	231426
3	6 x 4	231421
4	8 x 4	231422
6	10 x 4	231423
8	12 x 4	231424

Cleanout Sp



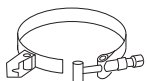
Dimension inches		Product Code
Primary	secondary	
1-1/2	-	257232
2	-	257235
3	-	257238
4	-	257241
6	-	257244

Cleanout Assembly Soc



Dimension inches		Product Code
Primary	secondary	
1-1/2	4	231383
2	4	231384
3	6	231385
4	8	231386
6	10	231381
8	12	231382

Primary Hub Clamp c/w Brass Nut

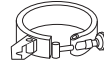


Dimension inches		Product Code
Primary	secondary	
1-1/2	-	231741
2	-	231742
*3	-	231411
4	-	231743
6	-	231744
8	-	231745

* Designed to be left on.

Dimension inches		Product Code
Primary	secondary	

Secondary Hub Clamp



Dimension inches		Product Code
Primary	secondary	
-	4	257258
-	6	231444
-	8	231445
-	10	231441
-	12	231442

IPEX Control Unit (Current Style)



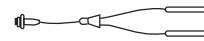
257279
Kit includes hub clamps, 1 1/2" thru 6", connector cable & 5' link cable.

Connector Cable Old Style Machine



- - 231302

Connector Cable Current Style Machine



- - 231301

Link Cable c/w EZ Connector



Length	Primary	Secondary	Product Code
2 ft. EZ	4	-	257268
5 ft. EZ	6	-	257269
10 ft. EZ	8	-	257270
15 ft. EZ	10	-	257271

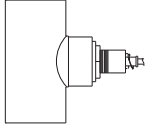
Encase Link Cable c/w Link Lead

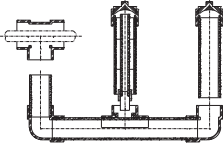


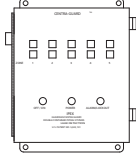
5 ft. - 257124

Encase components should only be joined using IPEX Control Units. NFRPP is the standard material of construction for all Encase components. FRPP is available on request.

PRODUCT SELECTION CHART

	Dimension inches		Product Code
	Primary	secondary	
	4	-	231834
	6	-	231835
	8	-	231836
	10	-	231837

	Dimension inches		Product Code
	Primary	secondary	
	4	-	231838
	6	-	231839
	8	-	231840
	10	-	231841
	12	-	231842

	Dimension inches		Product Code
	Primary	secondary	
5 Zone Panel 	-	-	631188

	Dimension inches		Product Code
	Primary	secondary	
10 Zone Panel 	-	-	631189

	Dimension inches		Product Code
	Primary	secondary	
Leak Detection Jumper Cable 	-	-	631186

Encase components should only be joined using IPEX Control Units. NFRPP is the standard material of construction for all Encase components. FRPP is available on request

GUARDIAN VINYL DOUBLE CONTAINMENT SYSTEMS



For more than 15 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. For instant leak detection of overhead piping, Clear-Guard clear PVC containment pipe is also available. Guardian's patented Centra-Lock design reduces the required joints by 40 - 60%.

SPECIFICATIONS

Material Selection

Xirtec®140 PVC and Corzan® 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. Clear-Guard utilizes a fail-safe, fully pressure rated clear PVC that uses a solvent cement jointing 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 Xirtec140 PVC or Corzan CPVC primary pipe.

Design

Guardian and Clear-Guard 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 60% fewer overall joints and up to 10% fewer field joints. 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 and Clear-Guard the industry's most cost-effective vinyl system. As with all our containment systems, the IPEX patented Centra-Guard™ point-of-collection or cable leak detection systems are also available.

General

Each contained piping system shall consist of Xirtec®140 PVC primary piping system supported within a Xirtec®140 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.

Material	Carrier	Containment
Xirtec140 PVC	1/2" - 12"	2" - 18"
Corzan CPVC	1/2" - 12"	2" - 18"
Clear-Guard PVC	n/a	2" - 8"

Larger sizes are available from IPEX.

FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

i DID YOU KNOW?

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



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.

DID YOU KNOW?

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.

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

FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

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 15 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, our own patented Centra-Guard™ point-of-collection or cable leak detection systems are also available.

General

Each contained piping system shall consist of Schedule 40 A-53 Carbon Steel primary piping system supported within a UL FRP 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.

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%. Fittings are available in clear or opaque containment fittings.

Material	Carrier	Containment
PVC	-	1/2" - 8"

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SPECIFICATIONS

General

Each contained piping system shall consist of Xirtec 140 PVC or Corzan 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.

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CLEAR-GUARD



CENTRA-GUARD LEAK DETECTION

Centra-Guard™

In many situations, as for example in buried systems, 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 one offers a combination of advanced features, reliability, re-usability and cost-effectiveness: Centra-Guard, an innovative and patented leak-detection system.

No cables to string during installation, no false alarms due to condensation and always re-usable, this patented system features self-contained capacitive proximity sensors (with sensing point adjustment) connected to a NEMA4 enclosed control panel with both audible and visual signals. Part of this ingenious system are its two different sensor housing designs; one specifically for over-head applications and one for below-grade applications.

The initial cost of the Centra-Guard system is offset tenfold by the savings realized in avoiding the much higher costs of an environmental cleanup or lost production.

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APPLICATIONS

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

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 monitor then raises an alarm in the plant to warn operators that a leak has been detected. Usually the detection system will pinpoint the leak and report its location. This allows operators to quickly rectify the situation.

Centra-Guard is the only non-intrusive leak detection system available. The sensor never comes in contact with the media.



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.

SYSTEM		Carrier SIZE
Carrier	Containment	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 - 12
S40 A106B CS BW	FRP	1/2 - 12
S80 A106B CS SW	FRP	1/2 - 2
S40 A53B THRD	PVC 40	1/2 - 2
S40 A106 SMLS BW	PVC 40	1/2 - 8
S40 A53 BLK BS	PVC 40	1/2 - 8
S80 A53 BLK SW	PVC 80	1/2 - 2
S80 A53 BLK SW	FRP	1/2 - 2
S40 A53 BLK SW	S40 A53 BLK	1/2 - 2
S40 A106B CS SW	PVC 80	1/2 - 8
S80 A53B CS BW	PVC 80	1/2 - 8
S80 A106B CS SW	PVC 80	1/2 - 8
S40 A106 CS SW	FRP	1/2 - 2
S80 A53B CS BW	FRP	1/2 - 12
S80 A106B CS BW	FRP	1/2 - 2
S40 A53B THRD	FRP	1/2 - 2
S40 A53 BLK CS	S40 A53 BLK CS	1/2 - 12
S40 A53 BLK SW	PVC 40	1/2 - 2

SYSTEM		Carrier SIZE
Carrier	Containment	inches
S40 A53 BLK SW	FRP	1/2 - 2
S40 A53 BLK 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 T0304L SS BW	CPVC 80	1/2 - 8
S10 T304L SS BW	FRP	1/2 - 12
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 - 12
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 - 12
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 - 12
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 - 4