

# WESTLUND/EMCO WATER SOLUTIONS





We Are Certified and Award Winning

## SPECIALISTS SERVING SPECIALISTS



**Westlund Water Solutions is the leading Canadian distributor** of pipes, valves, fittings, and all related equipment found 'inside the fence' for wastewater treatment plants, reservoirs, and pumping stations.



Ontario Office: 905-624-4575 Alberta Office: 780-577-8808

WaterSolutions@WestlundPVF.com www.everythinginsidethefence.com







# Industrial Product Catalogue

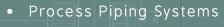






ipexna.com

ISSUE DATE: MARCH 2016



- Double Containment Systems
- Acid Waste Piping Systems
- Compressed Air Systems
- Thermoplastic Valves
- Specialty Products



We build tough products for tough environments®







# Contents

## **EASY SPECIFICATIONS**

## PROCESS PIPING SYSTEMS

Xirtec PVC & Corzan CPVC
Clear-Guard High Pressure Clear PVC Pipe
Enpure High Purity
Duraplus ABS Industrial

## 45 DOUBLE CONTAINMENT SYSTEMS

Encase Acid Waste PP Double Containment Guardian Vinyl Double Containment CustomGuard Clear-Guard Centra-Guard

## ACID WASTE PIPING SYSTEMS

Enfield Electrofusion Acid Waste System
Labline Mechanical Joint Acid Waste System
Floway Polypropylene Floor Drains
Plenumline Mechanical Joint Acid Waste System
Neutratank Neutralization Tanks

## 87 COMPRESSED AIR SYSTEMS

Duratec Airline

## 93 THERMOPLASTIC VALVES

Ball Valves
Butterfly Valves
Diaphragm Valves
Check & Vent Valves
Specialty Valves
Quarter Turn Automation

## 124 SPECIALTY PRODUCTS

Ventilation Duct Grooved PVC Pipe Well Casings

## MUNICIPAL PRODUCT LINE SHEET

MECHANICAL PRODUCT LINE SHEET

# INDUSTRIAL EASY SPEC

PRODUCT	SIZE RANGE	STANDARDS *	APPLICATIONS
PROCESS PIPING	SYSTEMS	* Consult IPEX lit	erature for individual product listings
Xirtec®140 PVC Schedule 40 & 80	1/4" - 24"	∰ ⊕ NSF <b>EABS</b>	Designed to meet the temperature, pressure and flow requirements of piping systems used in chemical processes, and other industrial applications. Applications include: Plant chemical distribution lines, water and waste water, acid systems for refineries, pickling lines and
Corzan° CPVC Schedule 40 & 80	1/2" - 16"	∰ ∰ MSF WE MEABS	plating shops, chlorine injections, chlorine dioxide and chloralkall plant piping, steel wire plant, irrigation systems, pharmaceutical, and waterworks etc.
Clear-Guard™ Clear PVC Schedule 40	1/2" - 8"	ANSI (ISI	Clear-Guard double containment for high purity piping, leak detection, agricultural & aquacultural, chemical processing/blending, healthcare/hospital use, laboratories, environmental, sight gauge assemblies, display/exhibits, and food and beverage processing.
Corzan® HP CPVC Schedule 80	1/2" - 8"	U.S. COAST GUARD	Chemical processing, semiconductor and electronics, water treatment, industrial manufacturing, mining, and power generation. Potable water, deck wash system, desalinization and chemical waste, black water, and brine ballast treatment.
Enpure™ High Purity PP Schedule 40 & 80	1/2" - 4"		Food processing, hospitals, laboratories, universities, biotechnology, research facilities, chemical manufacturing, photographic chemical processing, effluent treatment, water treatments, and pharmaceutical manufacturing.
Duraplus™ ABS Industrial	3/8" - 12"	(III) EABS	Chilled water/HVAC, Off shore applications, Mining and Secondary loop refrigeration.
DOUBLE CONTAIN	VMENT SYSTEMS		
Guardian™ Vinyl PVC & CPVC	PVC: Carrier 1/2" - 12" Containment 2"-18" CPVC: Carrier 1/2" - 12" Containment 2"-18"	457)	Plant chemical distribution lines, water and wastewater, acid systems for refineries, pickling lines and plating shops, chlorine injection, chlorine dioxide and chloralkali plant piping, steel wire plants, battery manufacturing, bleach lines, alum and caustic handling systems, semiconductor, overhead piping for personnel/ property/equipment protection, and hazardous waste systems. Xirtec PVC and Corzan CPVC are the chosen materials for the Guardian systems.
Drain-Guard™ PVC DWV	Carrier: 1-1/2" - 12" Containment 4" - 16"	<b>4</b> \$10	Healthcare/Hospital Use, laboratory applications, high-tech and data storage environments (network & server rooms etc.), museums and libraries, historical sites, theaters, restaurants (public areas), and residential buildings. Xirtec is the chosen material for the Drain-Guard system.
Clear-Guard™ PVC	PVC Sch 40 Carrier: 1/2" - 4" Containment 2"- 8"	4(1))	Plant chemical distribution lines, pharmaceutical, semiconductor, water and wastewater, and overhead piping for personnel/ property/equipment protection. Each containment piping system shall consist of Xirtec PVC or Corzan CPVC primary piping system supported within a Clear-Guard Schedule 40 clear PVC secondary containment housing.
CustomGuard® (Dissimilar Materials)	FRP/Metals/Dissimilar: Carrier 1/2" - 20" Containment 2" - 26"		Plant chemical distribution lines, water and wastewater, acid systems for refineries, pickling lines and plating shops, battery manufacturing, alum and caustic handling systems, pharmaceutical, generator back-up, semiconductor, and hazardous waste systems. Custom-designed and fabricated double containment systems including dissimilar material.
Encase™ Acid Waste PP	PP: Carrier 1-1/2" - 8" Containment 4" - 12"	411)	Corrosive chemical waste for university laboratories, schools, hospitals and industrial plants, and pharmaceuticals facilities.
Centra-Guard <sup>™</sup> Low Point Leak Detection Monitoring System			Above-ground suspended pipeline applications with sensors housed in a saddle type clamp, underground pipeline systems with drip leg assembly.
IPEX PAL-AT Cable Leak Detection Monitoring System	NOT available in Canada		Ideal for buried double containment piping applications that require exact leak location.

PRODUCT	SIZE RANGE	STANDARDS *	APPLICATIONS
CORROSIVE ACID	WASTE PIPING S	YSTEMS	
Enfield™ Electrofusion Joint PP	1-1/2" - 12"	<b>(1)</b> (1) (1) (1)	Corrosive chemical waste for university laboratories, schools, hospitals, industrial plants, and
Labline® Mechanical Joint PP	1-1/2" - 4"		pharmaceuticals facilities.
Plenumline™ Mechanical Joint PVDF	1-1/2" - 4"	(h) (h) (9) (s)	Corrosive chemical waste for challenging conditions, highly restrictive return air plenum applications, and high-temperature corrosive chemical waste situations.
Floway™ Floor Drains PP	2" - 6"		For efficiently managing chemical spills; designed to feed into IPEX acid waste systems.
Neutratank® PP or PE Neutralization Tanks	1-1/2" - 6"		Corrosive retention tank (with limestone) for the neutralization of chemical waste prior to discharge into the sewer.
Neutrasystem2™ pH Monitoring System	110/120 VAC input 24V DC operating voltage	(L) KEMA	Monitoring pH discharge levels for Neutratank.
COMPRESSED AIR	R SYSTEMS		
Duraplus™ Airline	1/2" - 4"	451)	Plant air, ventilation, and valve actuation.
Duratec® Airline	3/8" - 1" NOT available in Canada	(Ansi (B) FD/A OSHA	Plant air, inert gas distribution, manufacturing hand tool operatin, manual and automated welding operations, semi-conductor tool hook up, valve actuation - control systems, microbulk inert gas delivery, and robotic installations.
SPECIALTY PROD	UCTS		
Ventilation Duct (PVC & CPVC)	6" - 24"	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Industrial venting systems.
PVC Well Casing	2" - 16"	(f)) (S)	Well drop-pipe, and submersible pumps.
Roll Grooved PVC Pipe Schedule 40 & 80	2" - 12"		Can be used in any application where PVC pipe is acceptable and where it is desireable to have a quick assembly under adverse conditions.

# INDUSTRIAL EASY SPEC THERMOPLASTIC VALVES

PRODUCT	SIZE RANGE	UP TO PRESSURE *	APPLICATIONS				
BALL VALVES		* Consult IPEX literature for specifi					
VKD Series †	3/8" - 4"		Ball valves are generally used for on/off service, but can range from simple molded-in-place construction to high-				
EasyFit VXE Series †	1/2" - 6"	232 psi @ 73°F (1600 kPa @ 23°C)	end industrial designs with many features and benefits.				
EasyFit VEE Series	1/2" - 4"		Multi-port ball valves allow for mixing, diverting, and				
MP Series	1/2" - 2"	150 psi @ 73°F (1034 kPa @ 23°C)	bypassing flow.  Multi-port ball valves allow for mixing, diverting, and				
TKD Series 3-Way †	1/2" - 2"		bypassing flow. Extensive material options provide for				
VKR Series Regulating †	1/2" - 2"	232 psi @ 73°F (1600 kPa @ 23°C)	complete chemical compatibility in highly corrosive processes. Many ball valves feature full port flow, blocking				
Vented VKD Series †	3/8" - 4"	202 poi 0 10 1 (1000 iii ii 0 20 0)	true union ends, and compact ergonomic designs				
Vented Easyfit VXE Series †	3/8" - 6"		allowing for simple installation and maintenance.				
BUTTERFLY VALVES		* Consult IPEX literature for specific	c pressure ratings				
FK Series †	1-1/2" - 12"		These highly versatile valves can be used for simple on/off service but also for processes requiring throttling.  End-of-line installation of the lugged version allows for				
FK Series Lugged †	2-1/2" - 12"	150 psi @ 73°F (1034 kPa @ 23°C)	downstream piping disassembly with the upstream system still under pressure. The extensive size range and material availability make them applicable in a wide range of				
FE Series †	1-1/2" - 12"		applications. With simple, direct mounting for actuation, automated process control can be easily achieved.				
DIAPHRAGM VALVES		* Consult IPEX literature for specific	c pressure ratings				
VM Series	1/2" - 4"		Diaphragm valves are ideal for processes requiring precise flow throttling. The weir style design - no dead space in the				
VM Series Pneumatic	1/2" - 4"	150 psi @ 73°F (1034 kPa @ 23°C)	valve - is extremely good for abrasive slurries, high purity water and potentially off gassing chemicals such as sodium hypochlorite. Styles range from compact and direct acting				
DV Series	1/2" - 6"		to high end industrial design with many features and benefits. Diaphragm valves are available in both manual				
CM Series Compact	1/2" - 3/4"	90 psi @ 73°F (621 kPa @ 23°C)	operation and pneumatic operators.  These valves are widely used in high purity applications				
CM Series Compact Pneumatic	1/2" - 3/4"	, ,	because their design prevents friction and subsequent particle creation when cycling. Many body and diaphragm				
DM Series	1/2" - 2"	115 psi @ 73°F (793 kPa @ 23°C) depending on available control pressure	material options are available as well as simple pneumatic actuation.				
CHECK & VENT VALV	/ES	* Consult IPEX literature for specifi	c pressure ratings				
SXE Series Ball	1/2" - 4"	232 psi @ 73°F (1600 kPa @ 23°C)	Check valves should be used whenever there is a need to prevent back-flow of process media. IPEX offers high				
SSE Series Spring Assisted	1/2" - 4"		efficiency ball and piston checks as well as heavy duty swing check valves.				
VR Series Piston	1/2" - 4"	232 psi (1600 kPa) depending on size	Many styles exist including: simple ball checks, heavy duty swing checks, and highly efficient piston checks. These				
SC Series Swing	3" - 8"	100 psi (690 kPa) depending on size	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				
VA Series Air Release	3/4", 1-1/4" & 2"	232 psi (1600 kPa)	piping system.				
SPECIALTY VALVES		* Consult IPEX literature for specific	c pressure ratings				
RV Series Sediment Strainers	1/2" - 4"	232 psi (1600 kPa) depending on size	process line, ensuring that downstream components are				
S12/22 Series 2-Way Solenoid	1/4" - 1/2"	90 psi (621 kPa)	protected.  Solenoids are ideal for high-cycle applications where				
VV Angle Seat	1/2" - 2"		remote operation and precise control are important.				
LV Series Lab	1/4"	150 psi @ 73°F (1034 kPa @ 23°C)	Lab cock valves are an economical solution for small scale on/off requirements.				
VALVE ACTUATION		* Consult IPEX literature for specifi	c pressure ratings				

Automation is an ideal solution for precise control of many valves in a system. When valves are remotely located, or the process requires constant monitoring and adjustment, actuation is the solution.

Pneumatic and electric actuators can be easily fitted on our ball, multi-port, and butterfly valves.

IPEX offers quarter turn automation solutions for valves from

IPEX offers quarter turn automation solutions for valves from 3/8" to 12" with a variety of standard and optional accessories.

# PHYSICAL PROPERTIES

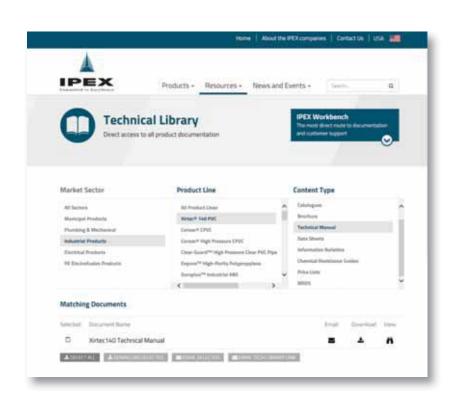
PVC (POLYVINYL CHLORIDE) CPVC (CHLORINATED POLYVINYL CHLORIDE)

Cell classification 12454 23447 24448 ASTM D178 Specific gravity 1.42 1.50 1.51 ASTM D63 Modulus of elasticity tensile, psi at 73°F 7,000 7,500 7,320 ASTM D63 Modulus of elasticity tensile, psi at 73°F 400,000 380,000 423,000 ASTM D63 Flexural strength, psi 14,500 11,400 13,200 ASTM D63 Flexural strength, psi 14,500 11,400 13,200 ASTM D63 Compressive strength, psi 9,000 10,100 10,100 ASTM D65 Compressive strength, psi 9,000 10,100 10,100 ASTM D65 Poisson's ratio 0.38 0.33 0.33 Working stress, psi at 73°F 2,000 2,000 2,000 Coefficient of thermal expansion in./in./°F (x 10°s) 3.0 3.8 3.4 ASTM D65 Linear expansion, in./10°F per 100° of pipe 0.36 0.44 - 0.46 0.41 Maximum operating temperature under pressure 140°F (60°C) 200°F (93°C) 200°F (93°C) Deflection temperature under load, °F at 66 psi 173 n/a n/a ASTM D64 Thermal conductivity, BTU.in./hr.ft².°F 1.2 0.95 0.95 ASTM C17 Burning rate Self extinguish Self extinguish Self extinguish ASTM D68 Burning class V-0 V-0 V-0 V-0 UL-94 Flash ignition, °F 730 900 900 Limited oxygen index (%) 4STM D2863	PROPERTIES	MATERIALS					
Specific gravity         1.42         1.50         1.51         ASTM D79           Tensile strength, psi at 73°F         7,000         7,500         7,320         ASTM D63           Modulus of elasticity tensile, psi at 73°F         400,000         380,000         423,000         ASTM D63           Flexural strength, psi         14,500         11,400         13,200         ASTM D79           Izod impact, ft.lbs./in. at 73°F, notched         0.65         2.0         10.0         ASTM D69           Compressive strength, psi         9,000         10,100         10,100         ASTM D69           Poisson's ratio         0.38         0.33         0.33           Working stress, psi at 73°F         2,000         2,000         2,000           Coefficient of thermal expansion in./in./°F (x 10°°)         3.0         3.8         3.4         ASTM D69           Linear expansion, in./10°F per 100° of pipe         0.36         0.44 - 0.46         0.41         0.41           Maximum operating temperature under pressure         140°F (60°C)         200°F (93°C)         200°F (93°C)           Deflection temperature under load, °F at 66 psi         173         n/a         n/a         ASTM D69           Thermal conductivity, BTU.in./hr.ft².°F         1.2         0.95         0.95	PROPERTIES	PVC			STANDARDS		
Specific gravity         1.42         1.50         1.51         ASTM D79           Tensile strength, psi at 73°F         7,000         7,500         7,320         ASTM D63           Modulus of elasticity tensile, psi at 73°F         400,000         380,000         423,000         ASTM D63           Flexural strength, psi         14,500         11,400         13,200         ASTM D79           Izod impact, ft.lbs./in. at 73°F, notched         0.65         2.0         10.0         ASTM D69           Compressive strength, psi         9,000         10,100         10,100         ASTM D69           Poisson's ratio         0.38         0.33         0.33           Working stress, psi at 73°F         2,000         2,000         2,000           Coefficient of thermal expansion in./in./°F (x 10°°)         3.0         3.8         3.4         ASTM D69           Linear expansion, in./10°F per 100° of pipe         0.36         0.44 - 0.46         0.41         0.41           Maximum operating temperature under pressure         140°F (60°C)         200°F (93°C)         200°F (93°C)           Deflection temperature under load, °F at 66 psi         173         n/a         n/a         ASTM D69           Thermal conductivity, BTU.in./hr.ft².°F         1.2         0.95         0.95							
Tensile strength, psi at 73°F 7,000 7,500 7,320 ASTM D63 Modulus of elasticity tensile, psi at 73°F 400,000 380,000 423,000 ASTM D63 Flexural strength, psi 14,500 11,400 13,200 ASTM D63 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D25 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D25 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D25 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D25 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D25 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D65 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D65 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D65 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D65 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D65 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D66 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D66 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D66 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 10.0 ASTM D66 Izod impact, ft.lbs./in. at 73°F, notched 0.65 2.0 Izod impact, ft.lbs./in. at	Cell classification	12454	23447	24448	ASTM D1784		
Modulus of elasticity tensile, psi at 73°F         400,000         380,000         423,000         ASTM D63           Flexural strength, psi         14,500         11,400         13,200         ASTM D79           Izod impact, ft.lbs. /in. at 73°F, notched         0.65         2.0         10.0         ASTM D25           Compressive strength, psi         9,000         10,100         10,100         ASTM D69           Poisson's ratio         0.38         0.33         0.33           Working stress, psi at 73°F         2,000         2,000         2,000           Coefficient of thermal expansion in./in./°F (x 10°)         3.0         3.8         3.4         ASTM D69           Linear expansion, in./10°F per 100′ of pipe         0.36         0.44 - 0.46         0.41         0.41           Maximum operating temperature under pressure         140°F (60°C)         200°F (93°C)         200°F (93°C)           Deflection temperature under load, "F at 66 psi         173         n/a         n/a         ASTM D64           Thermal conductivity, BTU.in./hr.ft².°F         1.2         0.95         0.95         ASTM D63           Burning class         V-0         V-0         V-0         UL-94           Flash ignition, "F         730         900         900	Specific gravity	1.42	1.50	1.51	ASTM D792		
Flexural strength, psi         14,500         11,400         13,200         ASTM D79           Izod impact, ft.lbs. /in. at 73°F, notched         0.65         2.0         10.0         ASTM D69           Compressive strength, psi         9,000         10,100         10,100         ASTM D69           Poisson's ratio         0.38         0.33         0.33         0.33           Working stress, psi at 73°F         2,000         2,000         2,000           Coefficient of thermal expansion in. /in. /°F (x 10°)         3.0         3.8         3.4         ASTM D69           Linear expansion, in. /10°F per 100′ of pipe         0.36         0.44 - 0.46         0.41         0.41           Maximum operating temperature under pressure         140°F (60°C)         200°F (93°C)         200°F (93°C)           Deflection temperature under load, "F at 66 psi         173         n/a         n/a         ASTM D64           Thermal conductivity, BTU.in. /hr.ft².°F         1.2         0.95         0.95         ASTM D63           Burning rate         Self extinguish         Self extinguish         Self extinguish         ASTM D63           Burning class         V-0         V-0         V-0         UL-94           Flash ignition, "F         730         900         900	Tensile strength, psi at 73°F	7,000	7,500	7,320	ASTM D638		
Izod impact, ft.lbs./in. at 73°F, notched   0.65   2.0   10.0   ASTM D250	Modulus of elasticity tensile, psi at 73°F	400,000	380,000	423,000	ASTM D638		
Compressive strength, psi 9,000 10,100 10,100 ASTM D69  Poisson's ratio 0.38 0.33 0.33  Working stress, psi at 73°F 2,000 2,000 2,000  Coefficient of thermal expansion in./in./°F (x 10°5) 3.0 3.8 3.4 ASTM D69  Linear expansion, in./10°F per 100′ of pipe 0.36 0.44 - 0.46 0.41  Maximum operating temperature under pressure 140°F (60°C) 200°F (93°C) 200°F (93°C)  Deflection temperature under load, °F at 66 psi 173 n/a n/a ASTM D64  Thermal conductivity, BTU.in./hr.ft².°F 1.2 0.95 0.95 ASTM C17  Burning rate Self extinguish Self extinguish Self extinguish ASTM D63  Burning class V-0 V-0 V-0 V-0 UL-94  Flash ignition, °F 730 900 900  Limited oxygen index (%) 43 60 60 ASTM D2863	Flexural strength, psi	14,500	11,400	13,200	ASTM D790		
Poisson's ratio         0.38         0.33         0.33         0.33           Working stress, psi at 73°F         2,000         2,000         2,000           Coefficient of thermal expansion in. /in. /°F (x 10-5)         3.0         3.8         3.4         ASTM D69           Linear expansion, in. /10°F per 100° of pipe         0.36         0.44 - 0.46         0.41         0.41           Maximum operating temperature under pressure         140°F (60°C)         200°F (93°C)         200°F (93°C)           Deflection temperature under load, °F at 66 psi         173         n/a         n/a         ASTM D64           Deflection temperature under load, °F at 264 psi         160         212         239         ASTM D64           Thermal conductivity, BTU.in. /hr.ft².°F         1.2         0.95         0.95         ASTM D63           Burning rate         Self extinguish         Self extinguish         Self extinguish         ASTM D63           Burning class         V-0         V-0         V-0         UL-94           Flash ignition, °F         730         900         900           Limited oxygen index (%)         43         60         60         ASTM D2863	Izod impact, ft.lbs./in. at 73°F, notched	0.65	2.0	10.0	ASTM D256		
Working stress, psi at 73°F  2,000  43  44  45  45  45  45  45  45  45  45	Compressive strength, psi	9,000	10,100	10,100	ASTM D695		
Coefficient of thermal expansion in. /in. /°F (x 10-5)  Linear expansion, in. /10°F per 100′ of pipe  0.36  0.44 - 0.46  0.41  Maximum operating temperature under pressure  140°F (60°C)  Deflection temperature under load, °F at 66 psi  173  n/a  n/a  ASTM D64  Deflection temperature under load, °F at 264 psi  Thermal conductivity, BTU.in. /hr.ft².°F  1.2  0.95  0.95  ASTM C17  Burning rate  Self extinguish Self extinguish Self extinguish Self extinguish Self extinguish Flash ignition, °F  730  900  900  Limited oxygen index (%)  ASTM D2863	Poisson's ratio	0.38	0.33	0.33			
Linear expansion, in./10°F per 100′ of pipe  0.36  0.44 - 0.46  0.41  Maximum operating temperature under pressure  140°F (60°C)  200°F (93°C)  200°F (93°C)  200°F (93°C)  Deflection temperature under load, °F at 66 psi  173  n/a  n/a  ASTM D64  Deflection temperature under load, °F at 264 psi  160  212  239  ASTM D64  Thermal conductivity, BTU.in./hr.ft².°F  1.2  0.95  0.95  ASTM C17  Burning rate  Self extinguish  Self extinguish  Self extinguish  ASTM D63  Burning class  V-0  V-0  V-0  V-0  UL-94  Flash ignition, °F  730  900  900  Limited oxygen index (%)	Working stress, psi at 73°F	2,000	2,000	2,000			
Maximum operating temperature under pressure 140°F (60°C) 200°F (93°C) 200°F (93°C)  Deflection temperature under load, °F at 66 psi 173 n/a n/a ASTM D64  Deflection temperature under load, °F at 264 psi 160 212 239 ASTM D64  Thermal conductivity, BTU.in./hr.ft².°F 1.2 0.95 0.95 ASTM C17  Burning rate Self extinguish Self extinguish Self extinguish ASTM D63  Burning class V-0 V-0 V-0 UL-94  Flash ignition, °F 730 900 900  Limited oxygen index (%) 43 60 60 ASTM D2863	Coefficient of thermal expansion in./in./ $^{\circ}F$ (x 10 $^{-5}$ )	3.0	3.8	3.4	ASTM D696		
Deflection temperature under load, °F at 66 psi 173 n/a n/a ASTM D64 Deflection temperature under load, °F at 264 psi 160 212 239 ASTM D64 Thermal conductivity, BTU.in./hr.ft².°F 1.2 0.95 0.95 ASTM C17 Burning rate Self extinguish Self extinguish Self extinguish Self extinguish ASTM D63 Burning class V-0 V-0 V-0 UL-94 Flash ignition, °F 730 900 900 Limited oxygen index (%) 43 60 60 ASTM D2863	Linear expansion, in./10°F per 100' of pipe	0.36	0.44 - 0.46	0.41			
Deflection temperature under load, °F at 264 psi 160 212 239 ASTM D64 Thermal conductivity, BTU.in./hr.ft².°F 1.2 0.95 0.95 ASTM C17 Burning rate Self extinguish Self extinguish Self extinguish Self extinguish ASTM D63 Burning class V-0 V-0 V-0 UL-94 Flash ignition, °F 730 900 900 Limited oxygen index (%) 43 60 60 ASTM D2863	Maximum operating temperature under pressure	140°F (60°C)	200°F (93°C)	200°F (93°C)			
Thermal conductivity, BTU.in./hr.ft².°F  1.2  0.95  0.95  ASTM C17  Burning rate  Self extinguish Self extinguish Self extinguish V-0  V-0  V-0  UL-94  Flash ignition, °F  730  900  900  Limited oxygen index (%)  43  60  60  ASTM D2863	Deflection temperature under load, °F at 66 psi	173	n/a	n/a	ASTM D648		
Burning rate Self extinguish Self extinguish Self extinguish ASTM D63  Burning class V-0 V-0 V-0 UL-94  Flash ignition, °F 730 900 900  Limited oxygen index (%) 43 60 60 ASTM D2863	Deflection temperature under load, °F at 264 psi	160	212	239	ASTM D648		
Burning class         V-0         V-0         V-0         UL-94           Flash ignition, °F         730         900         900           Limited oxygen index (%)         43         60         60         ASTM D2863	Thermal conductivity, BTU.in./hr.ft <sup>2</sup> .°F	1.2	0.95	0.95	ASTM C177		
Flash ignition, °F       730       900       900         Limited oxygen index (%)       43       60       60       ASTM D2863	Burning rate	Self extinguish	Self extinguish	Self extinguish	ASTM D635		
Limited oxygen index (%) 43 60 ASTM D2863	Burning class	V-0	V-0	V-0	UL-94		
	Flash ignition, °F	730	900	900			
	Limited oxygen index (%)	43	60	60	ASTM D2863-70		
Water absorption, %, (24 hrs. at 73°F) 0.05 0.03 0.03 ASTM D57	Water absorption, %, (24 hrs. at 73°F)	0.05	0.03	0.03	ASTM D570		

<sup>\*</sup> The properties listed in this table represent general material properties and should be used as a guideline only.

# IPEX TECHNICAL MANUALS available at www.ipexna.com

Obtaining the most up-to-date technical information has never been easier with our innovative ON-LINE MANUALS



## WHAT YOU CAN DO



IPEX offers a comprehensive range of integrated process piping systems – pipe, fittings, flanges, strainers and valves in PVC, CPVC, polypropylene and ABS – designed to meet the temperature, pressure and size requirements of a wide range of chemical processing and similar industrial applications.

In addition to costing less than common and exotic metal systems, IPEX thermoplastic process piping systems are lightweight, as well as easy to handle, store, cut and join, so transportation and installation cost are substantially lower.

When you specify a high-performance process piping system from IPEX, you get the added benefits of a complete piping solution that is engineered for total integration, and backed by comprehensive, coast-to-coast support – all from one reliable source.

# Process Piping Systems









Xirtec PVC & Corzan CPVC

Clear-Guard Clear PVC Pipe

Enpure High Purity

Duraplus ABS Industrial

2





## XIRTEC PVC & CORZAN CPVC

PVC Sch 40 - 1/2" - 24" (12mm - 600mm) PVC Sch 80 - 1/4" - 24" (6mm - 600mm) CPVC Sch 40 & 80 - 1/4" - 16" (6mm - 400mm)

# Xirtec 40 CORZAN

#### THE IPEX SYSTEM ADVANTAGE

IPEX vinyl process piping systems; a complete line of pipe, fittings, flanges, strainers and valves to meet all your process system requirements.

IPEX developed the Xirtec®140 (PVC) and Corzan® (CPVC) systems to meet industry demands for a complete Pipe, Valves and Fittings (PVF) package that is designed, produced and backed by a single manufacturer. These systems are engineered and manufactured to IPEX's strict quality, performance and dimensional standards, and therefore eliminate the problems inherent in purchasing and installing piping system components manufactured by several different companies.

IPEX high-performance vinyl systems are designed to meet the temperature, pressure and size requirements of piping systems used in chemical processes and other industrial applications. They feature outstanding resistance to photodegradation, creep stress and immunity to oxidation, and are exceptionally suited for use with a wide range of acids, alcohols, salts and halogens. The perfect extended service, low maintenance alternative to common and exotic metal systems.

Xirtec140 pipe and fittings and Corzan pipe are available in Schedule 40 and 80, IPS. Corzan fittings are available in Schedule 80. All pipe and fittings are also available in cast iron sizes for underground applications.

## **APPLICATIONS**

- Plant chemical distribution lines
- Water and wastewater
- Acid systems for refineries, pickling lines and plating shops
- Chlorine injection, chlorine dioxide and chloralkali plant piping
- Steel wire plants
- Battery manufacturing
- Bleach lines in textile and paper mills
- · Alum and caustic handling systems
- Circuit board manufacturing
- Semiconductor
- Pharmaceutical
- Cooling water and cooling tower systems
- Tailing and slurry lines
- Washwater recovery systems
- Plant water supply
- Brine and seawater systems
- Fish farming
- Waterworks
- Aquariums and swimming pools
- Irrigation systems in golf courses, greenhouses, etc.

#### **STANDARDS**

#### XIRTEC140

#### **CORZAN**



ASTM D1785









NSF 14



## **ADVANTAGES**

1 Lower Installation Costs, Easy Handling

In addition to a lower material cost, Xirtec & Corzan pipe can significantly reduce labour and transportation costs on a typical installation. The reason? They are lightweight, easily handled, stored, cut and joined.

2 Extended Life

Xirtec PVC and Corzan CPVC provide years of maintenance free service. Our materials will not rust, pit, scale or corrode on either interior or exterior surfaces. Thermoplastic piping systems in a variety of demanding industrial applications have operated successfully for over 45 years.

3 Superior Underground Performance

Xirtec and Corzan CPVC are immune to damage from naturally corrosive soil conditions as well as electrochemical and galvanic corrosion. This is particularly advantageous in underground installations where galvanic reaction often causes damage to metal piping products.

4 Exceptional Chemical Resistance

The IPEX vinyl systems, including pipe, valves and fittings, provide outstanding resistance to a wide range of chemicals such as most acids, alcohols, alkalies, salt solutions, halogens and more.

5 Improved Flow

Xirtec and Corzan have a substantially lower Roughness Factor than metal and other materials, and since they do not rust, pit, scale or corrode, the interior walls remain smooth in virtually any service.

6 Potable Water Approved

Xirtec140 polyvinyl chloride (PVC) and Corzan chlorinated polyvinyl chloride (CPVC) are suitable for use with potable water as listed with the National Sanitation Foundation (NSF) and CSA International.

7 Exceptional Temperature Range

IPEX vinyl systems are designed to meet a broad range of service temperatures. Xirtec has a recommended maximum service temperature of 140°F (60°C) in pressure, with a higher limit of 180°F (82°C) for intermittent gravity flow.

**Lower Thermal Conductivity** 

With a low thermal conductivity factor, IPEX vinyl systems have less heat loss or gain, thus sustaining service temperature more efficiently than metal piping. As a result, pipe insulation needs may be reduced.

Environmentally Responsible

With energy conservation a prime concern, you can rely on the fact that IPEX's manufacturing process for Xirtec and Corzan piping materials requires less than half the energy needed to produce the equivalent size of carbon steel or steel alloy materials.



DID YOU KNOW?

One of the outstanding characteristics of PVC is its resistance to ignition. This is demonstrated by its flash point of 730°F (388°C), compared to 400°F (204°C) for wood chips.

CPVC offers an even greater fire safety profile than PVC. CPVC's ignition resistance is demonstrated by its flash point of 900°F (482°C), with a low flame spread as well.

## PRODUCT SELECTION CHART

## PIPE PRESSURE RATINGS - XIRTEC140 PVC AND CORZAN CPVC

Si	zes	II	IPEX schedule 40			PEX Schedule 8	0
Diameter	0.D.	Wall Thickness	I.D.	*Max. Pressure 73°F	Wall Thickness	I.D.	*Max. Pressure 73°F
(in.)	(in.)	(in.)	(in.)	(psi)	(in.)	(in.)	(psi)
1/4	.540	-	-	-	.119	.302	1,130
3/8	.675	-	-	-	.126	.423	920
1/2	.840	.109	.602	600	.147	.526	850
3/4	1.050	.113	.804	480	.154	.722	690
1	1.315	.133	1.029	450	.179	.936	630
1-1/4	1.660	.141	1.360	370	.191	1.255	520
1-1/2	1.900	.145	1.590	330	.200	1.476	470
2	2.375	.154	2.047	280	.218	1.913	400
2-1/2	2.875	.203	2.445	300	.276	2.290	420
3	3.500	.216	3.042	260	.300	2.864	370
4	4.500	.237	3.998	220	.337	3.786	320
6	6.625	.280	6.031	180	.432	5.709	280
8	8.625	.322	7.941	160	.500	7.565	250
10	10.750	.365	9.976	140	.593	9.493	230
12	12.750	.406	11.888	130	.687	11.294	230
14	14.000	.438	13.072	130	.750	12.412	220
16	16.000	.500	14.936	130	.843	14.224	220
18	18.000	.562	16.809	130	.937	16.014	220
20	20.000	.593	18.743	120	1.031	17.814	220
24	24.000	.687	22.544	120	1.218	21.418	210

### **XIRTEC 140 PRESSURE PIPE**

Dime	nsion				PRODUC	CT CODE			
inches	mm	PVC Sch 40 White Plain End	PVC Sch 40 White Bell End	PVC Sch 40 Grey Bell End	PVC Sch 80 Grey Plain End	PVC Sch 80 Grey Bell End	CPVC Sch 40 Plain End	CPVC Sch 80 Plain End	CPVC Sch 80 Solvent Bell End
1/2 x 10'	12 x 3m	022600	022603	022004	-	085106	-	-	-
3/4 x 10'	20 x 3m	022633	022604	022011	-	085111	-	-	-
1 x 10'	25 x 3m	022612	022611	022016	-	085114	-	-	-
1-1/4 x 10'	32 x 3m	022608	022674	022027	-	085119	-	-	-
1-1/2 x 10'	40 x 3m	022614	022616	022032	-	-	-	-	_
2 x 10'	50 x 3m	022618	022619	022037	-	-	-	-	-
2-1/2 x 10'	65 x 3m	022621	-	022042	-	-	-	-	-
3 x 10'	75 x 3m	022637	022624	022046	-	-	-	-	_
4 x 10'	100 x 3m	022626	022628	_	085138	-	-	-	_
6 x 10'	150 x 3m	022666	022659	_	085143	_	-	_	_
1/4 x 20'	6 x 6m	-	-	-	085103	-	-	-	_
3/8 x 20'	10 x 6m	-	-	_	085104	-	-	-	_
1/2 x 20'	12 x 6m	022602	022601	-	085101	085108	019300	019203	_
3/4 x 20'	20 x 6m	022677	022607	-	085107	085112	019301	019205	_
1 x 20'	25 x 6m	022606	022610	-	085110	085116	019302	019207	-
1-1/4 x 20'	32 x 6m	022678	022617	-	085117	085122	019303	019209	_
1-1/2 x 20'	40 x 6m	022675	022615	-	085115	085127	019304	019211	019031
2 x 20'	50 x 6m	022679	022620	-	085120	085132	019305	019213	019032
2-1/2 x 20'	65 x 6m	022646	022625	-	085125	085134	019306	019216	-
3 x 20'	75 x 6m	022623	022630	-	085130	085137	019307	019217	019033
4 x 20'	100 x 6m	022627	022640	022040	085140	085139	019308	019219	019256
5 x 20'	125 x 6m	022651	022650	-	085150	-	-	-	_
6 x 20'	150 x 6m	022665	022660	022060	085160	085162	019309	019220	019218
8 x 20'	200 x 6m	022681	022680	022058	085180	085147	019310	019221	019255
10 x 20'	250 x 6m	022691	222690	022061	085190	085192	019013	019222	-
12 x 20'	300 x 6m	022693	022692	022064	085195	085151	019016	019223	_
14 x 20'	350 x 6m	022682	022694	-	085158	085152	-	019228	-
16 x 20'	400 x 6m	022683	022696	-	085153	085155	019226	019229	_
18 x 20'	450 x 6m	022687	022697	-	085159	-	-	-	-
20 x 20'	500 x 6m	022702	022698	-	-	085170	-	-	_
24 x 20'	600 x 6m	022704	022699	-	-	085171	-	-	-

## FOR XIRTEC 140 PVC SCHEDULE 40 WHITE

† Fabricated fittings

■ Molded fittings: 150 psi max. working pressure, non-shock @ 23°F (73°F)

#### FOR XIRTEC 140 PVC SCHEDULE 40 GREY

- † Indicates fabricated and fiberglass reinforced pipe fittings
- ▶ Indicates Series 160 Fabricated and Fiberglass reinforced pipe fittings. The maximum continuous working pressure of fittings is 160 psi @ 23°C (73°F) under ideal conditions. no provisions have been made for pressure surges, water hammer, or other conditions which should be considered.

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 40 WHITE & SCH. 40 GREY FITTINGS

	Dimensio	on	Sch 40 White	Sch 40 Grey		Dimensi	ion	Sch 40 White	
	inches	mm	Product Code	<b>Product Cod</b>		inches	mm	Product Code	Product Cod
Tee	Soc x Soc x Soc				Re	ducing Tee Soc	x Soc x Soc		
<u> </u>	1/2	12	035775	035290		1/2 x 1/2 x 3/4	12 x 12 x 20	035789	-
	3/4	20	035776	035291		1/2 x 1/2 x 1	12 x 12 x 25	035354	-
	1	25	035777	035292	_ (	3/4 x 1/2 x 1/2	20 x 12 x 12	035790	-
$-\mathcal{V}$	1-1/4	32	035778	035293		√ 3/4 x 1/2 x 3/4	20 x 12 x 20	235007	-
	1-1/2	40	035779	035294		3/4 x 3/4 x 1/2	20 x 20 x 12	035792	035305
	2	50	035780	035295		3/4 x 3/4 x 1	20 x 20 x 25	035791	-
	2-1/2	65	035781	035296		1 x 1/2 x 1	25 x 12 x 25	235008	-
	3	75	035782	035297		1 x 3/4 x 1/2	25 x 20 x 12	235009	-
	4	100	035783	035298		1 x 3/4 x 3/4	25 x 20 x 20	035994	-
	5	125	035784	035299		1 x 3/4 x 1	25 x 20 x 25	035962	-
	6	150	035785	035300		1 x 1 x 1/2	25 x 25 x 12	035794	035307
	8	200	035786	035301		1 x 1 x 3/4	25 x 25 x 20	035795	035308
	10	250	035930			1 x 1 x 1-1/4	25 x 25 x 32	035989	-
	12	300				1 x 1 x 1-1/2	25x 25 x 40	035793	-
	10	250		035302	t	1-1/4 x 1 x 1/2	32 x 25 x 12	235010	-
	12	300			†	1-1/4 x 1 x 3/4	32 x 25 x 20	035796	-
	14	350		035304	†	1-1/4 x 1 x 1	32 x 25 x 25	235011	-
	16	400		· -	†	1-1/4 x 1-1/4 x 1/2	32 x 32 x 12	035797	035311
	18	450		· -		1-1/4 x 1-1/4 x 3/4	32 x 32 x 20	035798	035312
	20	500		· -		1-1/4 x 1-1/4 x 1	32 x 32 x 25	035799	035313
	24	600		- -		1-1/4 x 1-1/4 x 1-1/2	32 x 32 x 40	235012	-
	24	600		-	•	1-1/2 x 1-1/4 x 1/2	40 x 32 x 12	235014	-
_						1-1/2 x 1-1/4 x 3/4	40 x 32 x 20	235015	-
lee	Soc x Soc x Fpt				_	1-1/2 x 1-1/4 x 1	40 x 32 x 25	035959	-
•	1/2	12	035851	-		1-1/2 x 1-1/2 x 1/2	40 x 40 x 12	035800	035315
4	3/4	20	035852	-		1-1/2 x 1-1/2 x 3/4	40 x 40 x 20	035801	035316
	1	25	035853	-		1-1/2 x 1-1/2 x 1	40 x 40 x 25	035802	035317
	1-1/4	32	035854	-		1-1/2 x 1-1/2 x 1-1/4	40 x 40 x 32	035803	035318
	1-1/2	40	035855	-		1-1/2 x 1-1/2 x 2	40 x 40 x 50	035082	-
	2	50	035856	-		1-1/2 x 1-1/2 x 2-1/2	40 x 40 x 65	235016	-
	2-1/2	65	035857	-		2 x 1-1/2 x 3/4	50 x 40 x 20	235017	-
	3	75	035858	-		2 x 1-1/2 x 1	50 x 40 x 25	035804	-
	4	100	035859	-		2 x 1-1/2 x 1-1/2	50 x 40 x 40	035805	-
	3/4 x 3/4 x 1/2	20 x 20 x 12	-	035348		2 x 2 x 1/2	50 x 50 x 12	035806	035319
	1 x 1 x 1/2	25 x 25 x 12	-	-		2 x 2 x 3/4	50 x 50 x 20	035807	035320
	1 x 1 x 3/4	25 x 25 x 20	-	035349		2 x 2 x 1	50 x 50 x 25		035321
	1-1/4 x 1-1/4 x 1/2	32 x 32 x 12	-	035350		2 x 2 x 1-1/4	50 x 50 x 32		-
	1-1/4 x 1-1/4 x 3/4	32 x 32 x 20	-	035977		2 x 2 x 1-1/2	50 x 50 x 40		035322
	1-1/4 x 1-1/4 x 1	32 x 32 x 25	-	-		2-1/2 x 2-1/2 x 1/2			-
	1-1/2 x 1-1/2 x 1/2	40 x 40 x 12	-	035351		2-1/2 x 2-1/2 x 3/4	65 x 65 x 20	035812	-
	1-1/2 x 1-1/2 x 3/4	40 x 40 x 20	-	035352		2-1/2 x 2-1/2 x 1			-
	1-1/2 x 1-1/2 x 1	40 x 40 x 25	-	035353		2-1/2 x 2-1/2 x 1-1/4	65 x 65 x 32	035814	-
	2 x 2 x 3/4	50 x 50 x 20	-	035355		2-1/2 x 2-1/2 x 1-1/2			-
	2 x 2 x 1	50 x 50 x 25	-	035356		2-1/2 x 2-1/2 x 2			-
	2 x 2 x 1-1/2	50 x 50 x 40	-	-		3 x 3 x 1/2	75 x 75 x 12		-
						3 x 3 x 3/4	75 x 75 x 20		-
Tee	Fpt x Fpt x Fpt					3 x 3 x 1	75 x 75 x 25		035326
100		10	025044		_	3 x 3 x 1-1/4	75 x 75 x 32		-
	1/2	12	035844	-		3 x 3 x 1-1/2	75 x 75 x 40		035327
	3/4	20	035845	-		3 x 3 x 2	75 x 75 x 50		035328
	1	25	035846	-		3 x 3 x 2-1/2	75 x 75 x 65		035329
	1-1/4	32	035847	-		3 x 3 x 4	75 x 75 x 100		-
	1-1/2	40	035848	-		4 x 4 x 3/4	100 x 100 x 20	035824	-
	2	50	035849	-		4 x 4 x 1	100 x 100 x 25	035825	-

	Dimen	sion	Sch 40 White	Sch 40 Gre	у	Dimension		Sch 40 White	Sch 40 Grey
	inches	mm	<b>Product Code</b>	Product Cod	le	inches	mm	Product Code	-
Redi	ucing Tee So	c x Soc x Soc	(cont'd)		Red	ducing Tee Soc	x Soc x Fpt		
	4 x 4 x 1-1/4	100 x 100 x 32		-		1/2 x 1/2 x 3/4	12 x 12 x 20	035860	-
	4 x 4 x 1-1/2	100 x 100 x 40		-		3/4 x 1/2 x 1/2	20 x 12 x 12	035862	-
	4 x 4 x 2	100 x 100 x 50		035331		3/4 x 1/2 x 3/4	20 x 12 x 20	235019	-
	4 x 4 x 3	100 x 100 x 75		035332		3/4 x 3/4 x 1/2	20 x 20 x 12	035863	-
	5 x 5 x 2	125 x 125 x 50		-		1 x 3/4 x 1/2	25 x 20 x 12		-
	5 x 5 x 3	125 x 125 x 75		-		1 x 1 x 1/2	25 x 25 x 12	035865	-
	5 x 5 x 4	125 x 125 x 100		-		1 x 1 x 3/4	25 x 25 x 20	035866	-
	6 x 6 x 2	150 x 150 x 50		-		1-1/4 x 1 x 1/2	32 x 25 x 12	035868	-
	6 x 6 x 3	150 x 150 x 75		035334		1-1/4 x 1 x 1	32 x 25 x 25	235020	-
	6 x 6 x 4	150 x 150 x 100		035335		1-1/4 x 1-1/4 x 1/2		035869	-
	8 x 8 x 3	200 x 200 x 75		-	t	1-1/4 x 1-1/4 x 3/4	32 x 32 x 20	035870	-
	8 x 8 x 4	200 x 200 x 100		035336	†	1-1/4 x 1-1/4 x 1		035871	-
	8 x 8 x 6	200 x 200 x 150		035337	t	1-1/2 x 1-1/4 x 1/2		235021	_
	10 x 10 x 4	250 x 250 x 100				1-1/2 x 1-1/4 x 3/4		035872	-
	10 x 10 x 6	250 x 250 x 150				1-1/2 x 1-1/4 x 1		235022	-
	10 x 10 x 8	250 x 250 x 200				1-1/2 x 1-1/2 x 1/2		035873	-
	12 x 12 x 4	300 x 300 x 100				1-1/2 x 1-1/2 x 3/4		035874	-
	12 x 12 x 6	300 x 300 x 150				1-1/2 x 1-1/2 x 1		035875	-
	12 x 12 x 8	300 x 300 x 200				1-1/2 x 1-1/2 x 1-1/4		035876	_
	12 x 12 x 10	300 x 300 x 250		035345		2 x 1-1/2 x 3/4	50 x 40 x 20	235023	-
	14 x 14 x 6	350 x 350 x 150				2 x 1-1/2 x 1	50 x 40 x 25	235024	_
	14 x 14 x 8	350 x 350 x 200				2 x 2 x 1/2	50 x 50 x 12		_
	14 x 14 x 10	350 x 350 x 250				2 x 2 x 3/4	50 x 50 x 20	035878	_
	14 x 14 x 12	350 x 350 x 300			†	2 x 2 x 1	50 x 50 x 25	035879	_
	16 x 16 x 8	400 x 400 x 200			t	2 x 2 x 1-1/4	50 x 50 x 32	035880	_
	16 x 16 x 10	400 x 400 x 250			†	2 x 2 x 1-1/2	50 x 50 x 40	035881	_
	16 x 16 x 12	400 x 400 x 300			t	2-1/2 x 2-1/2 x 1/2		235025	_
	16 x 16 x 14	400 x 400 x 350			†	2-1/2 x 2-1/2 x 3/4		035592	-
	18 x 18 x 8	450 x 450 x 200				2-1/2 x 2-1/2 x 1		035882	_
	18 x 18 x 10	450 x 450 x 250			,	2-1/2 x 2-1/2 x 1-1/4		035883	_
	18 x 18 x 12	450 x 450 x 300				2-1/2 x 2-1/2 x 1-1/4 2-1/2 x 2-1/2 x 1-1/2		035884	_
	18 x 18 x 14	450 x 450 x 350				3 x 3 x 1/2	75 x 75 x 12	035885	
		450 x 450 x 400			•	3 x 3 x 3/4	75 x 75 x 20	035886	
	18 x 18 x 16 20 x 20 x 12				•	3 x 3 x 1	75 x 75 x 25	035887	
	20 x 20 x 12 20 x 20 x 14	500 x 500 x 300 500 x 500 x 350				3 x 3 x 1-1/4	75 x 75 x 32	035888	-
	20 x 20 x 14 20 x 20 x 16	500 x 500 x 350			•	3 x 3 x 1-1/4	75 x 75 x 40	035889	
					•	3 x 3 x 2	75 x 75 x 50	035889	-
	20 x 20 x 18	500 x 500 x 450 600 x 600 x 350			•	4 x 4 x 1	100 x 100 x 25		-
	24 x 24 x 14				•				-
	24 x 24 x 16	600 x 600 x 400			•	4 x 4 x 1-1/2 4 x 4 x 2	100 x 100 x 40 100 x 100 x 50		-
	24 x 24 x 18	600 x 600 x 450							-
	24 x 24 x 20	600 x 600 x 500	) - 1	-	•	4 x 4 x 3	100 x 100 x 75		-
						5 x 5 x 4	125 x 125 x 100		-
						6 x 6 x 2	150 x 150 x 50		-
						6 x 6 x 4	150 x 150 x 75		-
						6 x 6 x 4	150 x 150 x 100		-
						8 x 8 x 3	200 x 200 x 75		-

 $8 \times 8 \times 4$ 

200 x 200 x 100

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 40 WHITE & SCH. 40 GREY FITTINGS

	Dimension		Sch 40 White		-		Dimer	ision	Sch 40 White	-
	inches	mm	Product Code	Product Co	de		inches	mm	Product Code	Product Code
90° EI	bow Soc x Soc					90° \$	Street Elbow	Spig x Soc		
	3/8	9	-	035108			1/2	12	035544	-
	1/2	12	035519	035109			3/4	20	035545	-
	3/4	20	035520	035110			1	25	035546	035128
	1	25	035521	035111			1-1/4	32	035547	-
	1-1/4	32	035522	035112			1-1/2	40	035548	035129
	1-1/2	40	035523	035113			2	50	035549	-
	2	50	035524	035114						
	2-1/2	65	035525	035115						
	3	75	035526	035116		000	Street Elbow	Mat v Fat		
	4	100	035527	035117		30 .			025550	025120
	5	125	035528	035118			1/2	12	035552	035132
	6	150	035529	035119			3/4	20	035553	035133
	8	200	035530	035120			1	25	035554	035134
	10	250	035928	-			1-1/4	32	035555	-
	12	300	035929	-			1-1/2	40	035556	035135
	10	250	035531	t 035121	†		2	50	035557	-
	12	300	035532	t 035122	†					
	14	350	035533	+ 035123	†					
	16	400	035534	t 035124	†	90° I	Reducing Elb	OW Soc x Soc	>	
	18	450	-	t -	Þ		3/4 x 1/2	20 x 12	035535	_
	20	500	-	t -			1 x 1/2	25 x 12	035536	-
	24	600	-	t -	Þ		1 x 3/4	25 x 20	035978	-
							1-1/4 x 1/2	32 x 12	235029	_
90° EI	<b>bow</b> Soc x Fpt						1-1/4 x 3/4	32 x 20	235030	-
	1/2	12	035506	035101			1-1/4 x 1	32 x 25	035991	-
	3/4	20	035507	035102			1-1/2 x 1/2	40 x 12	235031	-
	1	25	035508	035103			1-1/2 x 1	40 x 25	235032	-
$\langle - \langle - \rangle$	1-1/4	32	035509	035104			2 x 1-1/2	50 x 40	035537	-
	1-1/2	40	035510	035105						
	2	50	035511	035106						
	2-1/2	65	035512	-		90° I	Reducing Elb	OW Soc v Ent		
	3	75	035589	-		30 1	1/2 x 3/4	12 x 20	035514	
	4	100	035513	-			3/4 x 1/2	20 x 12	035514	-
							1 x 1/2	20 x 12 25 x 12	035516	-
							1 x 1/2 1 x 3/4	25 x 12	035516	-
90° EI	<b>bow</b> Fpt x Fpt						1 x 3/4 1-1/4 x 1	32 x 25	053317	-
	1/2	12	035538	035125			1-1/4 x 1 1-1/2 x 1	40 x 25	031007	-
	3/4	20	035539	035126			2 x 1-1/2			-
$\langle -\langle -$	1	25	035540	035127			Z X 1-1/Z	50 x 40	035518	-
	1-1/4	32	035541	-						
	1-1/2	40	035542	-		ahi2	Outlet Elbow	1 Soc v Soc v	Soc	
	2	50	035543	-			1/2	12	035498	
		v S00					1/2	12	033438	-
900 64	treet Filhow M+									
90° St	treet Elbow Mt :		035500							
90° St	1/2	12	035500	-		Side	₩ Outlet Elhow	I Soc x Soc x	Fnt	
90° SI	1/2 3/4	12 20	035501	-		Side	Outlet Elbow			
90° \$1	1/2 3/4 1	12 20 25	035501 035502			Side	1/2	12	235033	-
90° SI	1/2 3/4	12 20	035501	-		Side		12 20	235033 235034	- - -

	Dimension		Sch 40 White	Sch 40 Grey
	inches	mm	<b>Product Code</b>	<b>Product Code</b>
45	PEIDOW Soc x Soc			
	1/2	12	035481	035083
	3/4	20	035482	035084
	1	25	035483	035085
	1-1/4	32	035484	035086
	1-1/2	40	035485	035087
	2	50	035486	035088
	2-1/2	65	035487	035089
	3	75	035488	035090
	4	100	035489	035091
	5	125	035490	035092
	6	150	035491	035093
	8	200	035492	035094
	10	250	035926	-
	12	300	035927	-
	10	250	035493 <b>t</b>	035095 +
	12	300	035494 t	035096 +
	14	350	- †	035097 +
	16	400	035495 <b>t</b>	035098 +
	18	450	- †	- )
	20	500	035496 t	
	24	600	035497 <b>t</b>	- )
90	Radius Bends - 60	) SpxS	р	
_	1/2	12	- †	035932 +
الأ	3/4	20	035396 t	035009 +
l (	1	25	035397 +	035010 +
6	1-1/4	32	035398 t	035011 +
	1-1/2	40	035399 t	035012 +
	2	50	035400 t	035013 t

45⁰	Radius Bends - 60	) Sp x Sp				
_	1/2	12	-	t	-	t
	3/4	20	035391	t	-	†
( (	1	25	-	t	-	†
9	1-1/4	32	-	t	-	†
	1-1/2	40	035392	t	035004	†
	2	50	035939	t	035005	t
	2-1/2	65	-	t	-	†
	3	75	035393	t	035006	†
	4	100	035394	t	035007	†
	6	150	035395	t	035008	t
	8	200	-	t	-	t

n/a

n/a

Dimension		Sch 40 White	Sch 40 Grey
inches	mm	Product Code	<b>Product Code</b>

## 22-1/2° Radius Bends - 6D Sp x Sp

1/2	12	n/a	t	-	t
3/4	20	n/a	t	035000	t
1	25	035383	t	-	t
1-1/4	32	035384	t	-	t
1-1/2	40	035385	t	035970	t
2	50	035386	t	035001	t
2-1/2	65	035387	t	-	t
3	75	035388	t	035002	t
4	100	035389	t	035003	t
6	150	035390	t	-	t
8	200	-	t	-	t
10	250	-	t	057502	t
12	300	-	t	_	t

### Hose Adapter Insert x IPS Soc

	1/2	12	035596	-
	3/4	20	035597	-
	1	25	035598	-
3	1-1/4	32	035599	-
	1-1/2	40	035600	-
	2	50	035601	-
	3	75	235037	-
	4	100	235038	-

## Hose Adapter Insert x Mt

	1/2	12	-	035157
	3/4	20	-	035158
	1	25	-	035159
1	1-1/4	32	-	035160
1	1-1/2	40	-	035161
	2	50	-	035162
	2-1/2	65	-	035163
	3	75	-	035164
	4	100	-	035165

ASTM D2609 - Plastic Insert fitting for polyethylene

2-1/2

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 40 WHITE & SCH. 40 GREY FITTINGS

	Dimensior inches	n mm	Sch 40 White Product Code	Sch 40 Grey Product Cod		Dimensior inches	1 mm	Sch 40 White Product Code	Sch 40 Grey Product Code
Cross	Soc x Soc x So	c x Soc			Cou	pling Soc x Soc			
	1/2	12	035469	035068		3/8	9	035447	-
	3/4	20	035470	035069		1/2	12	035448	035052
	1	25	035471	035070		3/4	20	035449	035053
	1-1/4	32	035472	035071		1	25	035450	035054
	1-1/2	40	035473	035072		1-1/4	32	035451	035055
	2	50	035474	035073		1-1/2	40	035452	035056
	2-1/2	65	035475	035074		2	50	035453	035057
	3	75	035476	035075		2-1/2	65	035454	035058
	4	100	035477	035076		3	75	035455	035059
	6	150			t	4	100	035456	035060
	8					5	125	035457	035061
		200		t - • -	†	6	150	035458	035062
	10	250		•	t	8	200	035459	035062
	12	300		t -	†	10	250	035460 +	
	14	350		t -	†	12	300	035461 +	
	16	400		t -	†	14	350	035462 +	
	18	450	-	t -	•	16	400		
	20	500	-	t -	•	18			
	24	600	-	t -	•	20	450 500	- t 035464 t	
Reduc	ing Cross Soc	x Soc x So	oc x Soc			24	600	035465 t	-
	8 x 4	200 x 100	-	t -	Fem	iale Adapter Soc	x Fpt		
$\langle \rangle$	8 x 6	200 x 150	-	t -		1/2	12	035559	035136
	10 x 6	250 x 150	-	t -		3/4	20	035560	035137
	10 x 8	250 x 200		t -		1	25	035561	035138
	12 x 8	300 x 200	-	t -		1-1/4	32	035562	035139
	12 x 10	300 x 250	-	t -		1-1/2	40	035563	035140
	14 x 10	350 x 250		t -		2	50	035564	035141
	14 x 12	350 x 300		t -		2-1/2	65	035565	035142
	16 x 12	400 x 300		t -		3	75	035566	035143
	16 x 14	400 x 350		· † -		4	100	035567	035144
	18 x 14	450 x 350		t -		5	125	035568	035145
	18 x 16	450 x 400		t -		6	150	035569	035146
	20 x 16	500 x 400		t -		8	200	035570	033140
	20 x 18	500 x 450		t -		0	200	033370	
	24 x 18	600 x 450		t -	Fem	ale Adapter Spig	x Fpt		
	24 x 10	600 x 500				1/2	12	-	035148
	24 X 20	000 X 500	-	t -		3/4	20	-	035149
						1	25	-	035150
Coupli	<b>ng</b> Fpt x Fpt					1-1/4	32	-	035151
	1/2	12	035466			1-1/2	40	_	035152
	3/4	20	035467			2	50	_	035153
	1	25	035468			3	75	_	035155
	1	23	000+00			4	100	-	035156
<u>.</u>		_							
Reduc	ing Coupling		005750		Red	ucing Female Ad			
	3/4 x 1/2	20 x 12	035759			1/2 x 1/4	12 x 6	035571	-
	1 x 3/4	25 x 20	035760			1/2 x 3/8	12 x 9	035951	-
	1-1/4 x 1	32 x 25	035761			1/2 x 3/4	12 x 20	035572	-
	1-1/2 x 1-1/4	40 x 32	035762			3/4 x 1/2	20 x 12	035992	-
	2 x 1-1/2	50 x 40	035764			3/4 x 1	20 x 25	035990	-

1 x 3/4

25 x 20

035958

4 x 3

100 x 75

	Dimensio	on	Sch 40 White	-
	inches	mm	Product Code	<b>Product Code</b>
0		~ 0 0		
<u> </u>	ncentric Couplin 8 x 3	<b>g</b> Soc x So 200 x 75		
		200 x 75		- 1
	8 x 4			035042 1
	8 x 6	200 x 150		035043 1
	10 x 4	250 x 100		035044 1
	10 x 6	250 x 150		035045 1
	10 x 8 12 x 4	250 x 200		035046 1
	12 x 4 12 x 6	300 x 100		h - 1
		300 x 150		035047 1
	12 x 8	300 x 200		035048 1
	12 x 10	300 x 250		1 035049
	14 x 6	350 x 150		t - 1
	14 x 8	350 x 200		- 1
	14 x 10	350 x 250		t - 1
	14 x 12	350 x 300		- 1
	16 x 8	400 x 200		- 1
	16 x 10	400 x 250		- 1
	16 x 12	400 x 300		035051 1
	16 x 14	400 x 350		t - 1
	18 x 8	450 x 200		r - 1
	18 x 10	450 x 250		- 1
	18 x 12	450 x 300		- I
	18 x 14	450 x 350		- 1
	18 x 16 20 x 12	450 x 400 500 x 300		· - ]
	20 x 12	500 x 300 500 x 350		: - 1 : - 1
	20 x 14	500 x 400		t - 1 t - 1
	20 x 18	500 x 450		
	24 x 14	600 x 350		: - J
	24 x 16	600 x 400		- 1
	24 x 18	600 x 450		· - 1
	24 x 20	600 x 500		- 1
	21 / 20	000 N 000		•
Ma	le Adapter Soc	x Mt		
	3/8	9	035934	-
	1/2	12	035602	-
	3/4	20	035603	-
	1	25	035604	-
	1-1/4	32	035605	-
	1-1/2	40	035606	-
	2	50	035607	-
	2-1/2	65	035608	-
	3	75	035609	-
	4	100	035610	-
	5	125	035611	-
	6	150	035612	-
	8	200	035613	-
IPS	to PIP Adapter	Spig x Soc		
	6	150	235045	-
	8	200	235046	-
$\bigcirc$				

Dimension

Sch 40 White Sch 40 Grey

	Dimensio	Sch 40 White	Sch 40 Grey	/	
	inches	mm	Product Code	<b>Product Cod</b>	е
_					
FCC	entric Coupling	Soc x Soc			
$\supset$	8 x 4	200 x 100	- 1		t
$\exists$	8 x 6	200x150	- 1	035079	†
	10 x 4	250 x 100	035479		t
	10 x 6	250 x 150	- 1	035080	t
	10 x 8	250 x 200	- 1	035081	t
	12 x 4	300 x 100	- 1		t
	12 x 6	300 x 150	035480	-	t
	12 x 8	300 x 200	- 1		t
	12 x 10	300 x 250	- 1	-	t
	14 x 6	350 x 150	- 1	-	t
	14 x 8	350 x 200	- 1	-	t
	14 x 10	350 x 250	- 1		t
	14 x 12	350 x 300	- 1	t -	t
	16 x 8	400 x 200	- 1	t -	t
	16 x 10	400 x 250	- 1	· -	t
	16 x 12	400 x 300	- 1	t -	t
	16 x 14	400 x 350	- 1	t -	t
	18 x 8	450 x 200	- 1	t -	D
	18 x 10	450 x 250	- 1	· -	Þ
	18 x 12	450 x 300	- 1	t -	•
	18 x 14	450 x 350	- 1	t -	Þ
	18 x 16	450 x 400	- 1	t -	D
	20 x 12	500 x 300	- 1	t -	Þ
	20 x 14	500 x 350	- 1	t -	•
	20 x 16	500 x 400	- 1	t -	Þ
	20 x 18	500 x 450	- 1	t -	D
	24 x 14	600 x 350	- 1	-	Þ
	24 x 16	600 x 400	- 1	<del>-</del>	D
	24 x 18	600 x 450	- 1	-	D
	24 x 20	600 x 500	- 1	-	D

Reduci	na Ma	ch A al	nter 1	\/I+ v	200
Reuuci	ווע ועום	IC AUA	וטוכו ו	VII X	20C

υ	lucing Male Aua	ihrei mirxə	OC	
	1/2	12	-	035167
	1/2 x 3/4	12 x 20	035614	-
	3/4	20	-	035168
	3/4 x 1/2	20 x 12	035615	-
	3/4 x 1	20 x 25	035616	-
	1	25	-	035169
	1 x 3/4	25 x 20	035617	-
	1 x 1-1/4	25 x 32	035618	-
	1 1/4	32	-	035170
	1-1/4 x 1	32 x 25	035380	-
	1-1/4 x 1-1/2	32 x 40	035593	-
	1-1/2	40	-	035171
	1-1/2 x 1-1/4	40 x 32	035619	-
	1-1/2 x 2	40 x 50	035620	-
	2	50	-	035172
	2 x 1-1/2	50 x 40	035973	-
	2 x 2-1/2	50 x 65	235041	-
	2-1/2	65	-	035173
	2-1/2 x 3	65 x 75	235042	-
	2-1/2 x 4	65 x 100	235043	-
	3	75	-	035174
	3 x 4	75 x 100	235044	-
	4	100	-	035175
	5	125	-	035176
	6	150	-	035177

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 40 WHITE & SCH. 40 GREY FITTINGS

	Dimensi		Sch 40 White			Dimer		Sch 40 White	
	inches	mm	Product Code	Product Code		inches	mm	Product Code	Product Cod
ser l	Extension F	pt x Mpt			Reduce	r Bushing	Spig x Soc	(con't)	
	1/2	12	035591	-		6 x 2	150 x 50	035683	-
	3/4	20	035944	-		6 x 3	150 x 75	035684	-
	1	25	035947	-		6 x 4	150 x 100	035685	035244
						6 x 5	150 x 125	035686	-
niant	x Female A	danter Spic	r v Ent			8 x 4	200 x 100	035687	035245
pigot	1/2	12	035578		-	8 x 6	200 x 150		035246
	3/4			-		10 x 4	250 x 100		
		20	035579	-		10 x 6	250 x 150		
	1	25	035580	-		10 x 8	250 x 200		
	1-1/4	32	035581	-		12 x 4	300 x 100		
	1-1/2	40	035582	-		12 x 6	300 x 150		
	2	50	035583	-		12 x 8	300 x 200		
	2-1/2	65	035584	-		12 x 10	300 x 250		035253
	3	75	035585	-		14 x 6	350 x 150		
	4	100	035586	-		14 x 8	350 x 200		
						14 x 10	350 x 250		
duc	er Bushing	Spig x Soc				14 x 12	350 x 300		
	1/2 x 1/4	12 x 6	035643	_	-	16 x 8	400 x 200		
	1/2 x 3/8	20 x 9	035644	_		16 x 10	400 x 250		
	3/4 x 1/2	20 x 12	035646	035209		16 x 12	400 x 300		035207
						16 x 14	400 x 350		
	1 x 1/2	25 x 12	035648	035211		18 x 10	450 x 250		
	1 x 3/4	25 x 20	035649	035212		18 x 12	450 x 300		
	1-1/4 x 1/2	32 x 12	035650	035213		18 x 14	450 x 350		
	1-1/4 x 3/4	32 x 20	035651	035214		18 x 16	450 x 400		
	1-1/4 x 1	32 x 25	035652	035215		20 x 12	500 x 300		
	1-1/2 x 1/2	40 x 12	035653	035216		20 x 14	500 x 350		
	1-1/2 x 3/4	40 x 20	035654	035217		20 x 16	500 x 400		
	1-1/2 x 1	40 x 25	035655	035218		20 x 18	500 x 450		
	1-1/2 x 1-1/4	40 x 32	035656	035219		24 x 14	600 x 350		
	2 x 1/2	50 x 12	035657	035220		24 x 16	600 x 400		
	2 x 3/4	50 x 20	035658	035221		24 x 18	600 x 450		
	2 x 1	50 x 25	035659	035222		24 x 20	600 x 500	- †	_
	2 x 1-1/4	50 x 32	035660	035223	T.T. Bus	hing Mpt	x FPT		
	2 x 1-1/2	50 x 40	035661	035224		3/8 x 1/4	9 x 6	035696	
	2-1/2 x 1/2	65 x 12	035662	-		1/2 x 1/4	12 x 6	035697	_
	2-1/2 x 3/4	65 x 20	035663	-		1/2 x 3/8	12 x 9	035698	_
	2-1/2 x 1	65 x 25	035664	-		3/4 x 1/4	20 x 6	035699	_
	2-1/2 x 1-1/4	65 x 32	035665	035227		3/4 x 3/8	20 x 9	035968	_
	2-1/2 x 1-1/2	65 x 40	035666	035228		3/4 x 1/2	20 x 12	035700	-
	2-1/2 x 2	65 x 50	035667	035229		1 x 1/2	25 x 12	035701	_
	3 x 3/4	75 x 20	035668	-		1 x 3/4	25 x 20	035702	-
					1	-1/4 x 1/2	32 x 12	035703	_
	3 x 1	75 x 25	035669	035231		-1/4 x 3/4	32 x 20	035704	_
	3 x 1-1/4	75 x 32	035670	035232		1-1/4 x 1	32 x 25	035705	_
	3 x 1-1/2	75 x 40	035671	035233		1/2 x 1/2	40 x 12	035706	_
	3 x 2	75 x 50	035672	035234		-1/2 x 3/4	40 x 20	035707	-
	3 x 2-1/2	75 x 65	035673	035235		1-1/2 x 1	40 x 25	035708	-
	4 x 2	100 x 50	035677	035238		1/2 x 1-1/4	40 x 32	035709	-
	4 x 2-1/2	100 x 65	035678	035239		2 x 1	50 x 25	035711	-
	4 x 3	100 x 75	035679	035240		2 x 1-1/4	50 x 32	035712	-
	5 x 2	125 x 50	035680	-		2 x 1-1/2	50 x 40	035713	-
	5 x 3	125 x 75	035681	-		2-1/2 x 2	65 x 50	035714	-
	5 x 4	125 x 100	035682	035241		3 x 2	75 x 50	035715	-
						3 v 2-1/2	75 x 65	035716	

3 x 2-1/2

75 x 65

	Dimen	SIUII		SCII 40 Grey
	inches	mm	<b>Product Code</b>	Product Code
Red	lucer Bushing	Spig x Ept		
	1/2 x 1/8	12 x 3	035717	-
	1/2 x 1/4	12 x 6	035718	035258
=	1/2 x 3/8	12 x 9	035719	035259
	3/4 x 1/4	20 x 6	035720	-
	3/4 x 1/2	20 x 12	035722	035260
	1 x 3/8	25 x 9	035723	-
	1 x 1/2	25 x 12	035724	035262
	1 x 3/4	25 x 20	035725	035262
	1-1/4 x 1/2	32 x 12	035726	035264
	1-1/4 x 3/4	32 x 20	035727	035265
	1-1/4 x 1	32 x 25	035727	035266
	1-1/2 x 1/2	40 x 12	035729	035267
	1-1/2 x 3/4	40 x 20	035730	035268
	1-1/2 x 1	40 x 25	035731	035269
	1-1/2 x 1-1/4	40 x 32	035732	035270
	2 x 1/2	50 x 12	035733	035271
	2 x 3/4	50 x 20	035734	035272
	2 x 1	50 x 25	035735	035273
	2 x 1-1/4	50 x 32	035736	035274
	2 x 1-1/2	50 x 40	035737	035275
	2-1/2 x 1/2	65 x 12	035738	-
	2-1/2 x 3/4	65 x 20	035739	-
	2-1/2 x 1	65 x 25	035740	-
	2-1/2 x 1-1/4	65 x 32	035741	-
	2-1/2 x 1-1/2	65 x 40	035742	035277
	2-1/2 x 2	65 x 50	035743	035278
	3 x 3/4	75 x 20	035744	-
	3 x 1	75 x 25	035745	-
	3 x 1-1/4	75 x 32	035746	-
	3 x 1-1/2	75 x 40	035747	035282
	3 x 2	75 x 50	035748	035283
	3 x 2-1/2	75 x 65	035749	-
	4 x 2	100 x 50	035750	035285
	4 x 2-1/2	100 x 65	035751	-
	4 x 3	100 x 75	035752	035286
	5 x 3	125 x 75	035753	-
	5 x 4	125 x 100	035754	235062
	6 x 2	150 x 50	035755	-
	6 x 3	150 x 75	035756	-
	6 x 4	150 x 100	035757	035287
	6 x 5	150 x 125	035758	-
45°	Wye Soc x So	r x Sor		
	1-1/2	40	035912	<u> </u>
7	2	50		
Y	3			
	4	75	035915	
	6	100	035916	
	6 x 6 x 4	150 150 x 150 x 100	035917 I	
	O A O A T	100 / 100 / 100	000322	

Dimension

Sch 40 White Sch 40 Grey

Dimer	ısion	Sch 40 White	Sch 40 Grey
inches	mm	Product Code	<b>Product Code</b>

## **45° Wye** Soc x Soc x Soc (50 psi / 345 kPa max)

	•				
	1/2	12	-	035357	t
1	3/4	20	-	035358	†
>	1-1/2	40	-	035359	t
	2	50	-	035360	†
	2-1/2	65	-	035361	t
	3	75	-	-	t
	4	100	-	035363	t
	6	150	-	035364	†
	8	200	-	035365	t
	10	250	-	035366	t
	12	300	-	035367	t
	14	350	-	-	t
	16	400	-	-	t
	18	450	-	-	•
	20	500	-	-	•
	24	600	-	-	•

### **45° Reducing Wye** Soc x Soc x Soc (50 psi / 345 kPa max)

	,	(-			
8 x 8 x 4	200 x 200 x	100	-	035372	t
8 x 8 x 6	200 x 200 x	150	-	035373	t
10 x 10 x 4	250 x 250 x	100	-	-	t
10 x 10 x 6	250 x 250 x	150	-	035374	t
10 x 10 x 8	250 x 250 x	200	-	-	t
12 x 12 x 4	300 x 300 x	100	-	-	t
12 x 12 x 6	300 x 300 x	150	-	035935	t
12 x 12 x 8	300 x 300 x	200	-	-	t
12 x 12 x 10	300 x 300 x	250	-	-	t
14 x 14 x 6	350 x 350 x	150	-	-	t
14 x 14 x 8	350 x 350 x	200	-	-	t
14 x 14 x 10	350 x 350 x	250	-	-	t
14 x 14 x 12	350 x 350 x	300	-	-	t
16 x 16 x 8	400 x 400 x	200	-	035375	t
16 x 16 x 10	400 x 400 x	250	-	-	t
16 x 16 x 12	400 x 400 x	300	-	-	t
16 x 16 x 14	400 x 400 x	350	-	-	t
18 x 18 x 8	450 x 450 x	200	-	-	Þ
18 x 18 x 10	450 x 450 x	250	-	-	Þ
18 x 18 x 12	450 x 450 x	300	-	-	Þ
18 x 18 x 14	450 x 450 x	350	-	-	Þ
18 x 18 x 16	450 x 450 x	400	-	-	Þ
20 x 20 x 12	500 x 500 x	300	-	-	D
20 x 20 x 14	500 x 500 x	350	-	-	Þ
20 x 20 x 16	500 x 500 x	400	-	-	D
20 x 20 x 18	500 x 500 x	450	-	-	Þ
24 x 24 x 14	600 x 600 x	350	-	-	Þ
24 x 24 x 16	600 x 600 x	400	-	-	Þ
24 x 24 x 18	600 x 600 x	450	-	-	D
24 x 24 x 20	600 x 600 x	500	-	-	Þ

1/2" - 2" - 235 psi maximum internal pressure rating @ 73°F (12 - 50mm - 1 620 kPa maximum internal pressure rating @ 23°C)

**3" - 6" - 150** psi maximum internal pressure rating @ **73°F** (75 - 150mm - 1 034 kPa maximum internal pressure rating @ 23°C)

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 40 WHITE & SCH. 40 GREY FITTINGS

	Dimer	ısion	Sch 40 White	-		Dii	mension	Sch 40 White	
	inches	mm	Product Code	<b>Product Code</b>		inches	mm	Product Code	<b>Product Code</b>
Cap	Soc				Plu	<b>g</b> Mpt			
<u>.</u>	3/8	9	035406	035590		3/8	9	035621	_
	1/2	12	035407	035017		1/2	12	035622	035188
	3/4	20	035408	035018		3/4	20	035623	035189
	1	25	035409	035019		1	25	035624	035190
	1-1/4	32	035410	035019		1-1/4	32	035625	035191
	1-1/2	40	035411	035020		1-1/2	40	035626	035192
	2	50	035412	035021		2	50	035627	035193
	2-1/2	65	035412	035022		2-1/2	65	035628	035194
		75				3	75	035629	035195
	3		035414	035024		4	100	035630	035196
	4	100	035415	035025		6	150	235047	-
	5	125	035416	035026					
	6	150	035417	035027	Plu	<b>g</b> Spig			
	8	200	035418	035028		3/8	9	035946	-
	10	250	035419 <del>1</del>			1/2	12	035631	035197
	12	300	035420 <del>1</del>			3/4	20	035632	035198
	14	350	035421 t	035031 +		1	25	035633	035199
	16	400	- 1	- †		1-1/4	32	035634	035200
	18	450	035422 <del>1</del>			1-1/2	40	035635	035201
	20	500	035940 t			2	50	035636	035202
	24	600	- 1			2-1/2	65	035637	035203 +
						3	75	035638	035204
Cap	Fpt					4	100	035639	-
	3/8	9	035948	-	Sar	Idles Pine O	D x Soc (Rated for	80 nsi / 552 kF	a Open-Ended)
	1/2	12	035423	035032	Jac	2-1/2 x 3		235048	a Open-Linded)
	3/4	20	035424	035033		• 3 x 1-1/		035996	-
	1	25	035425	035034		3 x 1-1/		235049	_
	1-1/4	32	035426	035035		• 3 x 2	75 x 50	035995	_
	1-1/2	40	035427	035036	• These	• 4 x 1-1/		035767	-
	2	50	035428	035037	sizes are bushed.	4 x 1-1/		035768	-
	2-1/2	65	035429	035038	busileu.	• 4 x 2	100 x 50	035769	-
	3	75	035430	035039		• 5 x 1-1/		235050	-
	4	100	035431	-		5 x 2	125 x 50	035955	-
	5	125	035432	_		• 6 x 1-1/	4 150 x 32	235051	-
	6	150	035433	_		6 x 1-1/	2 150 x 40	035588	-
	J	130	000400			• 6 x 2	150 x 50	035942	-
Union		D O	. 0 1			6 x 4	150 x 100	035770	-
Ullion	Soc x Soc	Buna O-ring			_	• 8 x 1-1/	4 200 x 32	235052	-
	1/2	12	035900	-		8 x 1-1/		235053	-
	3/4	20	035901	-		• 8 x 2	200 x 50	235054	-
	1	25	035902	-		8 x 4	200 x 100	035976	-
	1-1/4	32	035903	-		10 x 4	250 x 100	035771	-
	1-1/2	40	035904	-					
	2	50	035905	-	Sac		D x Fpt (Rated for		a Open-Ended)
						2-1/2 x 3/		235055	-
Unior	Fpt x Fpt	Buna O-ring	Seal			3 x 1-1/2		035993	-
	1/2	12	035906			4 x 1-1/2		035772	-
	3/4	20	035907	-		5 x 2	125 x 50	035943	-
	1	25	035907	_		6 x 1-1/2		035587	-
				-		6 x 4	150 x 100	235056	-
	1-1/4	32	035909	-		8 x 1-1/2		235057	-
	1-1/2	40	035910	-		8 x 4	200 x 100	035774	-
	2	50	035911	-		10 x 4	250 x 100	235058	-

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

	Dimen	sion	PVC Sch 80	CPVC Sch 80			ension	PVC Sch 80	CPVC Sch 80
	inches	mm	Product Code	Product Code		inches	mm	Product Code	Product Code
Tee	Soc x Soc x S	Soc			Red	ucing Tee	Soc x Soc x So	С	
$\overline{}$	1/4	6	036768	059479	$\sim$	3/4 x 3/4 x 1/2	20 x 20 x 12	036786	059492
	3/8	9	036769	059480		1 x 3/4 x 3/4	25 x 20 x 20	036790	-
	1/2	12	036770	059481		1 x 3/4 x 1	25 x 20 x 25	036791	059493
	3/4	20	036771	059482		1 x 1 x 1/2	25 x 25 x 12	036788	059494
	1	25	036772	059483		1 x 1 x 3/4	25 x 25 x 20	036789	-
	1-1/4	32	036773	059484		1-1/4 x 1 x 3/4		036792	-
	1-1/2	40	036774	059485		1-1/4 x 1 x 1-1/4		-	059495
	2	50	036775	059486		1-1/4 x 1-1/4 x 3/4		036793	-
	2-1/2	65	036776	059487		1-1/4 x 1-1/4 x 1		036794	-
	3	75	036777	059488		1-1/2 x 1-1/2 x 3/4		036795	059496
	4	100	036778	059489		1-1/2 x 1-1/2 x 1		036796	059497
	6	150	036780	059490		2 x 2 x 1/2	50 x 50 x 12	036797	059498
	8	200	036781	059491		2 x 2 x 3/4	50 x 50 x 20	036798	059499
	10	250		■ 059062 ■		2 x 2 x 1	50 x 50 x 25	036799	059500
	12	300		059084		2 x 2 x 1-1/2	50 x 50 x 40	036800	059501
	10	250	036782			3 x 3 x 2	75 x 75 x 50	036802	059502
	12	300		† -		3 x 3 x 2-1/2	75 x 75 x 65	036803	059504
	14	350		t -		4 x 4 x 2	100 x 100 x 50	036804	059505
	16					4 x 4 x 3	150 x 100 x 75	036805	-
		400		† -		6 x 6 x 3	150 x 150 x 75		-
	18	450	036126	† -		6 x 6 x 4 8 x 8 x 4	150 x 150 x 100 200 x 200 x 100	036808 036809	+ 059506
Tee	Soc x Soc x F	pt				8 x 8 x 6	200 x 200 x 150	036810	t 059567
	1/2	12	036828	059942	-	10 x 10 x 4	250 x 250 x 100	036919	t -
	3/4	20	036829	059943		10 x 10 x 6	250 x 250 x 150	036812	t -
	1	25	036830	059518		10 x 10 x 8	250 x 250 x 200	036813	t -
	2	50	036832	-		12 x 12 x 8	300 x 300 x 200	036814	t -
						12 x 12 x 10	300 x 300 x 250	036815	t -
Tee	Fpt x Fpt x F	pt				14 x 14 x 10	350 x 350 x 250	036816	t -
	1/4	6	036817	059507	-	14 x 14 x 12	350 x 350 x 300	-	t -
	3/8	9	036818	059508		16 x 16 x 12	400 x 400 x 300	-	t -
	1/2	12	036819	059509		16 x 16 x 14	400 x 400 x 350	-	-
	3/4	20	036820	059510					
	1	25	036821	059511	90°	Elbow Soc	x Soc		
	1-1/4	32	036821	059511		1/4	6	036179	059192
	1-1/4	40	036823	059512		3/8	9	036180	059193
	2	50	036824	059513		1/2	12	036181	059194
						3/4	20	036182	059195
	2-1/2	65 75	036825	059515		1	25	036183	059196
	3	75	036826	059516		1-1/4	32	036184	059197
	4	100	036827	059517		1-1/2	40	036185	059198
000	Elhow F=±	En+				2	50	036186	059199
an.	Elbow Fpt x	•	006107	050000	_	2-1/2	65	036187	059200
	1/4	6	036197	059206		3	75	036188	059201
	3/8	9	036198	059207		4	100	036189	059202
<b>*</b>	1/2	12	036199	059208		6	150	036191	059203
	3/4	20	036200	059209		8	200	036192	059204
	1	25	036201	059210		10	250	036864	059085
	1-1/4	32	036202	059211		12	300	036865	059086
	1-1/2	40	036203	059212		10	250	036193 +	-
	2	50	036204	059213		12	300	036194 t	-
	2 2-1/2	50 65	036204 036205	059213 059214		12 14	350	036194 <del>1</del> 036195 <del>1</del>	
									-

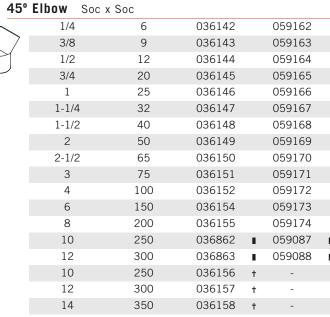
■,+,▶ See page 5 for descriptions

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

	Dimension		PVC Sch 80	CPVC Sch 80
	inches	mm	Product Code	Product Code
90°	Elbow Soc x	Fpt		
	1/2	12	036172	059187
	3/4	20	036173	059941
1	1	25	036174	059188
	1-1/4	32	036175	059189
	1-1/2	40	036176	059190
	2	50	036177	059191

	Dim	ension	PVC Sch 80	CPVC Sch 80
	inches	mm	Product Code	Product Code
22-	1/2° Elbow	Soc x Soc		
_	2	50	036134	059614
	3	75	036135	059615
7	4	100	036136	059616
	6	150	036137 t	-
	8	200	036138 t	-
	10	250	036139 t	-
	12	300	036140 <del>1</del>	-

059617



	3	75	-	059618
	4	100	-	059619
Cro	ss Soc x Soc	x Soc x Soc		
	1/4	6	-	059620
	1/2	12	036116	059154
<b>9</b> Y	3/4	20	036117	059155
	1	25	036118	059156
	1-1/4	32	036119	059157
	1-1/2	40	036120	059158
	2	50	036121	059159
	2-1/2	65	036122	059018
	3	75	036123	059160
	4	100	036124	059161

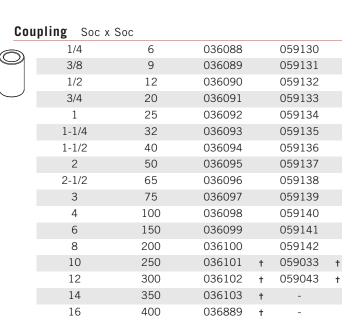
150

036125

50

11-1/4° Elbow Soc x Soc

	- '	000	000100	•
	16	400	036159	† -
45°	<b>Elbow</b> Fpt	x Fpt		
$\overline{}$	1/4	6	036160	059176
	3/8	9	036161	059177
=4	1/2	12	036162	059178
	3/4	20	036163	059179
	1	25	036164	059180
	1-1/4	32	036165	059181
	1-1/2	40	036166	059182
	2	50	036167	059183
	2-1/2	65	036168	059184
	3	75	036169	059185
	4	100	036170	059186
30°	Elbow Soc	x Soc		
_	6	150	236003	059022



	Dimension		PVC Sch 80	CPVC Sch 80	
	inches	mm	Product Code	Product Code	
Cou	pling Fpt x Fpt				
<b></b>	1/4	6	036104	059143	
	3/8	9	036105	059144	
	1/2	12	036106	059145	(
	3/4	20	036107	059146	
	1	25	036108	059147	
	1-1/4	32	036109	059148	
	1-1/2	40	036110	059149	
	2	50	036111	059150	
	2-1/2	65	036112	059151	
	3	75	036113	059152	

036114

059153

100

4

Dimen	sion	PVC Sch 80	CPVC Sch 80
inches	mm	Product Code	<b>Product Code</b>

45⁰	Wye Soc x	Soc x Soc				
~	1-1/2	40	036854	1	059553.	
$/\lambda$	2	50	036855	1	059536	ı
	3	75	036856		059537	1
	4	100	036857	1	059538	ı
	6	150	036858		059539	1
	6 x 4	150 x 100	036861	1	059541	ı
	8	200	036859	†	-	
	8 x 6	200 x 150	036884	t	-	

1/2" - 2" - 235 psi maximum internal pressure rating @ 73°F (12 - 50mm - 1 620 kPa maximum internal pressure rating @ 23°C)

**3" - 6" - 150** psi maximum internal pressure rating **@ 73°F** (75 - 150mm - 1 034 kPa maximum internal pressure rating **@** 23°C)

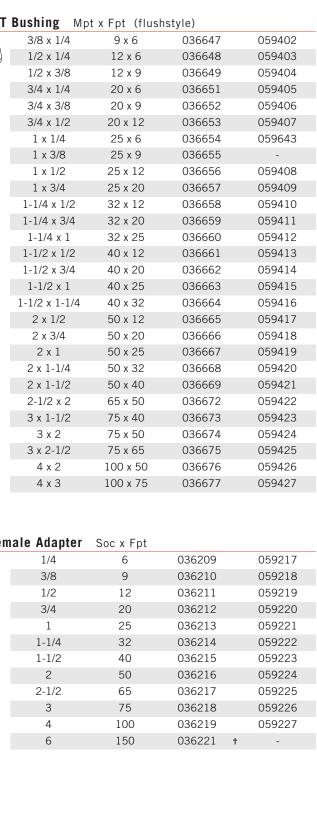
Red	ucer Coupling	Soc x Soc		
	3/4 x 1/2	20 x 12	036719	059460
	1 x 1/2	25 x 12	036720	059461
	1 x 3/4	25 x 20	036721	059462
	1-1/4 x 3/4	32 x 20	036723	-
	1-1/4 x 1	32 x 25	036724	059463
	1-1/2 x 1/2	40 x 12	036725	-
	1-1/2 x 3/4	40 x 20	036726	059464
	1-1/2 x 1	40 x 25	036727	059465
	1-1/2 x 1-1/4	40 x 32	036728	059466
	2 x 1/2	50 x 12	036897	-
	2 x 1	50 x 25	036729	059467
	2 x 1-1/2	50 x 40	036731	059458
	3 x 2	75 x 50	036735	059470
	4 x 2	100 x 50	036736	059459
	4 x 3	100 x 75	036738	059472
	6 x 4	150 x 100	036740	059471
	8 x 6	200 x 150	036743	059473
Red	ucer Coupling	Fpt x Fpt		
	1/2 x 1/4	12 x 6	036746	-
	3/4 x 1/2	20 x 12	036748	-

Red	lucer Coupling	Fpt x Fpt		
	1/2 x 1/4	12 x 6	036746	-
	3/4 x 1/2	20 x 12	036748	-
	1 x 1/2	25 x 12	036749	-
	1 x 3/4	25 x 20	036750	-
	1-1/4 x 3/4	32 x 20	036751	-
	1-1/2 x 1	40 x 25	036754	-
	2 x 1-1/2	50 x 40	036758	-

Red	ucer Bushing	Spig x Soc	(flushstyle)	
	3/8 x 1/4	9 x 6	036599	-
	1/2 x 1/4	12 x 6	036600	059373
	1/2 x 3/8	12 x 9	036601	059374
	3/4 x 1/2	20 x 12	036604	059375
	1 x 1/2	25 x 12	036605	059376
	1 x 3/4	25 x 20	036606	059377
	1-1/4 x 1/2	32 x 12	036607	059378
	1-1/4 x 3/4	32 x 20	036608	059379
	1-1/4 x 1	32 x 25	036609	059380
	1- 1/2 x 1/2	40 x 12	036610	059381
	1- 1/2 x 3/4	40 x 20	036611	059382
	1-1/2 x 1	40 x 25	036612	059383
	1-1/2 x 1-1/4	40 x 32	036613	059384
	2 x 1/2	50 x 12	036614	059385
	2 x 3/4	50 x 20	036615	059386
	2 x 1	50 x 25	036616	059387
	2 x 1-1/4	50 x 32	036617	059388
	2 x 1-1/2	50 x 40	036618	059389
	2 -1/2 x 1-1/4	65 x 32	036620	-
	2-1/2 x 1-1/2	65 x 40	036621	-
	2-1/2 x 2	65 x 50	036622	059392
	3 x 1	75 x 25	036623	-
	3 x 1-1/2	75 x 40	036624	059393
	3 x 2	75 x 50	036625	059394
	3 x 2-1/2	75 x 65	036626	059395
	4 x 2	100 x 50	036628	059396
	4 x 3	100 x 75	036630	059397
	6 x 2	150 x 50	036632	059398
	6 x 3	150 x 75	036633	059399
	6 x 4	150 x 100	036634	059400
	8 x 6	200 x 150	036638	059401
	10 x 6	250 x 150	036922 +	-
	10 x 8	250 x 200	036270 +	-
	12 x 10	300 x 250	036208 t	_
	12 x 6	300 x 150	036908	-
	12 x 8	300 x 200	036645	-

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

	Dimension		PVC Sch 80	CPVC Sch 80		Dime	nsion	PVC Sch 80	
	inches	mm	<b>Product Code</b>	Product Code		inches	mm	Product Code	
	<b>.</b>					<b>D</b> 12			
Kea	ucer Bushing		(flushstyle)		1.1		t x Fpt (flus		_
	3/8 x 1/4	9 x 6	036679	-		3/8 x 1/4	9 x 6	036647	
	1/2 x 1/4	12 x 6	036681	059428		1/2 x 1/4	12 x 6	036648	
	1/2 x 3/8	12 x 9	036682	059429		1/2 x 3/8	12 x 9	036649	
	3/4 x 1/4	20 x 6	036683	059430		3/4 x 1/4	20 x 6	036651	
	3/4 x 1/2	20 x 12	036684	059431		3/4 x 3/8	20 x 9	036652	
	1 x 3/8	25 x 9	036685	-		3/4 x 1/2	20 x 12	036653	
	1 x 1/2	25 x 12	036686	059432		1 x 1/4	25 x 6	036654	
	1 x 3/4	25 x 20	036687	059433		1 x 3/8	25 x 9	036655	
	1-1/4 x 1/2	32 x 12	036688	059434		1 x 1/2	25 x 12	036656	
	1-1/4 x 3/4	32 x 20	036689	059435		1 x 3/4	25 x 20	036657	
	1-1/4 x 1	32 x 25	036690	059436		1-1/4 x 1/2	32 x 12	036658	
	1-1/2 x 1/2	40 x 12	036691	059437		1-1/4 x 3/4	32 x 20	036659	
	1-1/2 x 3/4	40 x 20	036692	059438		1-1/4 x 1	32 x 25	036660	
	1-1/2 x 1	40 x 25	036693	059439		1-1/2 x 1/2	40 x 12	036661	
	1-1/2 x 1-1/4	40 x 32	036694	059440		1-1/2 x 3/4	40 x 20	036662	
	2 x 1/2	50 x 12	036695	059441		1-1/2 x 1	40 x 25	036663	
	2 x 3/4	50 x 20	036696	059442		1-1/2 x 1-1/4	40 x 32	036664	
	2 x 1	50 x 25	036697	059443		2 x 1/2	50 x 12	036665	
	2 x 1-1/4	50 x 32	036698	059444		2 x 3/4	50 x 20	036666	
	2 x 1-1/2	50 x 40	036699	059445		2 x 1	50 x 25	036667	
	2-1/2 x 3/4	65 x 20	036700	059446		2 x 1-1/4	50 x 32	036668	
	2-1/2 x 1	65 x 25	036701	059447		2 x 1-1/2	50 x 40	036669	
	2-1/2 x 1-1/4	65 x 32	036702	059448		2-1/2 x 2	65 x 50	036672	
	2-1/2 x 1-1/2	65 x 40	036703	059449		3 x 1-1/2	75 x 40	036673	
	2-1/2 x 2	65 x 50	036704	059450		3 x 2	75 x 50	036674	
	3 x 3/4	75 x 20	036705	-		3 x 2-1/2	75 x 65	036675	
	3 x 1	75 x 25	036706	059547		4 x 2	100 x 50	036676	
	3 x 1-1/4	75 x 32	036707	-		4 x 3	100 x 75	036677	
	3 x 1-1/2	75 x 40	036708	059451					
	3 x 2	75 x 50	036709	059452					
	3 x 2-1/2	75 x 65	036710	059453	_				
	4 x 2	100 x 50	036711	059454	Fen	iale Adapter			_
	4 x 2-1/2	100 x 65	036712	059640		1/4	6	036209	
	4 x 3	100 x 75	036713	059455		3/8	9	036210	
	6 x 2	150 x 50	036714	-		1/2	12	036211	
	6 x 3	150 x 75	036715	059641		3/4	20	036212	
	6 x 4	150 x 100	036716	059456		1	25	036213	
						1-1/4	32	036214	
						1-1/2	40	036215	
						2	50	036216	
Mal		c x Mpt				2-1/2	65	036217	
	1/2	12	036420	059286		3	75	036218	
	3/4	20	036421	059287		4	100	036219	
	1	25	036422	059288		6	150	036221 +	
	1-1/4	32	036423	059289					
	1-1/2	40	036424	059290					
	2	50	036425	059291					
	0.1/0	CF	006406	050000					



CPVC Sch 80

**Product Code** 

2-1/2

3

4

6

65

75

100

150

036426

036427

036428

036887

059292

059293

I	Dime	nsion	PVC Sch 80	CPVC Sch 80		Dime	nsion	PVC Sch 80	CPVC Sch 80
	inches	mm	Product Code	Product Code		inches	mm	Product Code	Product Code
Fem	ale Adapter	Soc x Fpt	(SS reinforced)		Cap	Fpt			
	1/2	12	036971	059951		1/4	6	036072	059119
	3/4	20	036972	059952		3/8	9	036073	059120
	1	25	036973	059953		1/2	12	036074	059121
	1-1/4	32	036974	059954		3/4	20	036075	059122
	1-1/2	40	036975	059955		1	25	036076	059123
	2	50	036976	059956		1-1/4	32	036077	059124
	2-1/2	65	036977	059646		1-1/2	40	036078	059125
	3	75	036978	059957		2	50	036079	059126
	4	100	036979	059958		2-1/2	65	036080	059127
						3	75	036081	059128
Fem	ale Adapter	Spig x Fpt	(SS reinforced)	)		4	100	036082	059129
	1/2	12	036965	059945	_				
	3/4	20	036966	059946					
	1	25	036967	059947					
	1-1/4	32	036968	059948	Plug	Mpt			
	1-1/2	40	036969	059949		1/4	6	036568	059361
	2	50	036970	059950		3/8	9	036569	059362
	3	75	236000	059647		1/2	12	036570	059363
	4	100	236001	059648		3/4	20	036571	059364
						1	25	036572	059365
Hos	e Adapter ⊢	lose x Mpt				1-1/4	32	036573	059366
	1/4	6	036394 +	-		1-1/2	40	036574	059367
	3/8	9	036395 +	-		2	50	036575	059368
	1/2	12	036396 +	-		2-1/2	65	036576	059369
M	3/4	20	036397 +	-		3	75	036577	059370
	1	25	036398 +	-		4	100	036578	059371
	1 1/4	32	036399 +	-		6	150	036579	-
	1 1/2	40	036400 +	-					
	2	50	036401 +	-					
	2 1/2	65	036402 +	-					
	3	75	036403 +	-	Plug	Spig			
	4	100	036404 +	-		2	50	036585	-
Cap	Soc								
$\bigcirc$	1/4	6	036056	059107					
$\exists$	3/8	9	.036057	059108					
	1/2	12	036058	059109	90° I	Radius Bend	s - 6D Snig	x Spig	
	3/4	20	036059	059110		1/2	12	- t	_
	1	25	036060	059111		3/4	20	036027 +	
	1-1/4	32	036061	059112		1	25	036027 +	
	1-1/2	40	036062	059113	6	1-1/4	32	036028 +	
	2	50	036063	059114		1-1/4	40		
	2-1/2	65	036064	059115		2	50		
	3	75	036065	059116					
	1	100	02000	050117		2-1/2	65	036032 +	-

†

†

t

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

	Dime inches	nsion mm	PVC Sch 80 Product Code			Din inches	nension mm	PVC Sch 80 Product Code	CPVC Sch 80 Product Code
45° Ra	adius Bend	s - 6D Spig	g x Spig		Union	Soc x Fp	t (Viton® O-r	ing Seal)	
	1/2	12		t		1/2	12	036410	-
	3/4	20	036020	†		3/4	20	036411	-
( (	1	25	036021	t		1	25	036412	-
	1-1/4	32	-	†		1-1/4	32	036413	-
	1-1/2	40	036022	t		1-1/2	40	036414	-
	2	50		t		2	50	036415	_
	2-1/2	65		t		3	75	236010	-
	3	75		t		4	100	236011	_
	4	100		t			100	200011	
	6	150		†					
	8	200		t	Tank A	dapter	Soc x Fpt		
	10	250		†		1/2	12	036038	059100
	12	300		†		3/4	20	036039	059101
						1	25	036040	059102
22-1/	2º Padiue I	Bends - 6D	Snig v Snig			1-1/4	32	036041	-
22-1/4					_	1-1/2	40	036042	059103
/7	1/2	12		† -		2	50	036043	059104
	3/4	20	- 026012	† -		3	75	036045	059105
	1	25		† -		4	100	036046	059106
	1-1/4	32	-	† -		6	150	- +	
	1-1/2	40		† -				•	
	2	50		† -					
	2-1/2	65 35		† -	Tank A	dapter	Fpt x Fpt		
	3	75		† -		1/2	12	036047	-
	4	100		† -		3/4	20	036048	-
	6	150		† -		1	25	036049	-
	8	200		† -		1-1/4	32	036050	-
	10	250		† -		1-1/2	40	036051	-
	12	300	-	† -		2	50	036052	-
						3	75	036054	-
Union	Soc x Soc	(Viton® O-r	ing Seal)			4	100	036055	-
	1/4	6	036833	059519		6	150	- †	-
	3/8	9	036834	-					
	1/2	12	036835	059520					
	3/4	20	036836	059521	Flange		olid style)		
	1	25	036837	059522		1/2	12	036223	059228
	1-1/4	32	036838	059523	(9)	3/4	20	036224	059229
	1-1/2	40	036839	059524		1	25	036225	059230
	2	50	036840	059525		1-1/4	32	036226	059231
	3	75	036842	059526		1-1/2	40	036227	059232
	4	100	036843	059550		2	50	036228	059233
						2-1/2	65	036229	059234
Union	Ent x Ent	(Viton® O-ri	ng Seal)			3	75	036230	059235
	1/4	6	036844	059527	_	4	100	036231	059236
	3/8	9	036845	-		5	125	036232	-
	1/2	12	036846	059529		6	150	036233	059238
	3/4	20	036847	059529		8	200	036234	059239
	1					10	250	036235 +	-
		25	036848	059531		12	300	036236 +	-
	1-1/4	32	036849	059532		14	350	036237 +	
	1-1/2	40	036850	059533		16	400	036238 t	
	2	50	036851	059534		18	450	036870 +	
	2								
	3	75 100	036852 036853	059535 059651		20	500	- †	-

24

600

036239 +

Dimension			on	PVC S	ch 80	CPVC S	ch 80_	
	in	ches	Annonisi	mm		t Code	Produc	
Flai	ıge	Fpt	(solid	style)				
_		1/2		12	036	5240	059	240
	:	3/4		20	036	5241	059	241
		1		25	036	242	059	242
	1	-1/4		32	036	243	059	243
	1	-1/2		40	036	244	059	244
		2		50	036	245	059	245
	2	-1/2		65	036	246	059	246
		3		75	036	247	059	247
		4		100	036	5248	059	248
		6		150	036	5249	059	249
Flai	nge	Blin	d					
		1/2		12	0362	250	059	9250
		3/4		20	0362	251	059	9251
		1		25	0362	252	059	9252
	1	-1/4		32	0362	253	059	9253
	1	-1/2		40	0362	254	059	9254
		2		50	0362	255	059	9255
	2	-1/2		65	0362	256	059	9256
		3		75	0362	257	059	9257
		4		100	0362	258	059	9258
		6		150	0362			9259
		8		200	0362		059	9260
		10		250	0362			-
		12		300	0362			-
		14		350	0362		•	-
		16		400	0362		•	-
		18		450	0362	265 <b>†</b>	•	-
		20		500	-	t	•	-
		24		600	0362	266 t	<b>*</b>	-

◆ Domed flange

### No-Leak Flange Spig x Spig



Leak Flalige	Shig x Shig				
1/2	12	036331	t	-	
3/4	20	036332	t	-	
1	25	036923	t	-	
1-1/4	32	036333	t	-	
1-1/2	40	036334	t	-	
2	50	036335	t	-	
2-1/2	65	036336	t	-	
3	75	036337	t	-	
4	100	036338	t	-	
6	150	036339	t	-	
8	200	036340	†	-	
10	250	036341	t	-	
12	300	036342	t	-	
14	350	036915	t	-	
16	400	036343	t	-	
18	450	036871	t	-	
20	500	-	t	-	
24	600	036924	t	-	

Dimen	sion	PVC Sch 80	CPVC Sch 80
inches	mm	Product Code	<b>Product Code</b>

Hea	vy Duty Vans	tone Flange	Soc w Fib	re-Lo	c Ring
	1/2	12	-		059262
	3/4	20	-		059263
	1	25	-		059264
	1-1/4	32	-		059265
	1-1/2	40	036323		059266
	2	50	036324		059267
	2-1/2	65	-		059268
	3	75	036326		059269
	4	100	036416		059270
	6	150	036417		059271
	8	200	036418		059272
	10	250	036419	t	059273
	12	300	036429	t	059569
	14	350	036358	† ▼	-
	16	400	036359	† ▼	-

▼ Molded hub, c/w coated metal rings

## Vanstone Flange Soc w PVC Ring



	otono i lango	000 11 1 0	, ,,,,,,,,	
	1/2	12	036344	-
)	3/4	20	036345	-
	1	25	036346	-
	1-1/4	32	036347	-
	1-1/2	40	036348	-
	2	50	036349	-
	2-1/2	65	036350	-
	3	75	036351	-
	4	100	036352	-
	5	125	036353	-
	6	150	036354	-
	8	200	036355	-
	10	250	036356 ▼	-
	12	300	036357 ▼	-

▼ Molded hub, c/w coated metal rings

## Vanstone Flange Soc w Steel Ring



_	18	450	036947	t	-
3)	20	500	036913	t	-
	24	600	036914	t	-

Note: these flanges are rated at 50 psi (345 kPa) maximum operating

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

	Dime	nsion	PVC Sch 80	CPVC Sch 80	1
	inches	mm	Product Code	<b>Product Code</b>	
Van	stone Flange	: Spig			
-0-	1/2	12	036374	059274	
	3/4	20	036375	059275	
	1	25	036376	059276	
	1-1/4	32	036377	059277	
	1-1/2	40	036378	059278	
	2	50	036379	059279	(
	2-1/2	65	036380	059280	
	3	75	036381	059281	
	4	100	036382	059282	
	6	150	036383	059283	
	8	200	036384	059570	
	10	250	036321 +	-	
	12	300	036406 +	-	

Dimens	sion	PVC Sch 80	CPVC Sch 80
inches	mm	Product Code	<b>Product Code</b>

## Nipples



۱	7/8 close	22	036434	059296
,	1-1/2	40	036445	059306
	2	50	036456	059316
	2-1/2	65	036457	-
	3	75	036458	059317
	3 1/2	90	036459	-
	4	100	036460	059318
	4-1/2	115	036461	-
	5	125	036462	059319
	6	150	036463	059320
	8	200	036464	-
	10	250	236012	-
	12	300	236013	_

#### 3/8" (9mm) diameter

1/4" (6mm) diameter

1 close	25	036435	059551
1-1/2	40	036446	059307
2	50	036466	059552
2-1/2	65	036467	-
3	75	036468	059939
3-1/2	90	036469	-
4	100	036470	059554
4-1/2	115	036471	-
5	125	036472	-
6	150	036473	-
8	200	036474	-
O	200	030474	

#### 1/2" (12mm) diameter

1-1/8 close	28	036436	059297
1-1/2	40	036447	059308
2	50	036475	059322
2-1/2	65	036476	-
3	75	036477	059321
3-1/2	90	036478	-
4	100	036479	059324
4-1/2	115	036480	-
5	125	036481	059325
5-1/2	140	036482	-
6	150	036483	059326
8	200	036484	-
10	250	036485	-
12	300	036486	-

## Vanstone Flange Fpt

•	anotono i lango	ı pı		
	1/2	12	036385	059656
	3/4	20	036386	059657
	1	25	036387	059658
	1-1/4	32	036388	059284
	1-1/2	40	036389	059659
	2	50	036390	059660
	2-1/2	65	036391	059661
	3	75	036392	059285
	4	100	036393	059662

1/8'	' Flange Gasket	Neoprene		
	1/2	12	036296	-
3	3/4	20	036297	-
	1	25	036298	-
	1-1/4	32	036299	-
	1-1/2	40	036300	-
	2	50	036301	-
	2-1/2	65	036302	-
	3	75	036303	-
	4	100	036304	-
	5	125	036305	-
	6	150	036306	-
	8	200	036307	-
	10	250	036308	-
	12	300	036309	-
	14	350	036310	-
	16	400	036311	-
	18	450	036312	-
	20	500	036313	-
	24	600	036314	-

	Dimens	sion	PVC Sch 80	CPVC Sch 80		Dimen	sion	PVC Sch 80	CPVC Sch 80
	inches	mm	Product Code	<b>Product Code</b>		inches	mm	Product Code	<b>Product Code</b>
Nipı	oles				Nip	ples			
	3/4" (20mm) dian	neter				1-1/2" (40mm) d	iameter		
_	1-3/8 close	35	026427	059298		1-3/4 close	45	036440	059301
	1-3/6 Close	40	036437			2	50	036451	059312
			036448	059309		2-1/2	65	036526	-
	2	50	036490	059327		3	75	036527	059342
	2-1/2	65	036491	-		3-1/2	90	036528	-
	3	75	036492	059328		4	100	036529	059343
	3-1/2	90	036493	-		4-1/2	115	036530	-
	4	100	036494	059329		5	125	036531	059344
	4-1/2	115	036495	-		5-1/2	140	036532	-
	5	125	036496	059331		6	150	036533	059345
	5-1/2	140	036497	-		8	200	036534	-
	6	150	036498	059332		10	250	036535	-
	8	200	036500	-		12	300	036536	-
	10	250	036501	-					
	12	300	036502	_		2" (50mm) diame	eter		
	12	000	000002			2 close	50	036441	059302
						2-1/2	65	036452	-
	1" (25mm) diame	ter				3	75	036539	059346
	1-1/2 close	40	036438	059299		3-1/2	90	036540	-
	2	50	036449	059310		4	100	036541	059347
	2-1/2	65	036504	-		4-1/2	115	036542	-
	3	75	036505	059333		5	125	036543	059348
	3-1/2	90	036506	-		5-1/2	140	036544	-
	4	100	036507	059334		6	150	036545	059349
	4-1/2	115	036508	-		8 10	200 250	036546	-
	5	125	036509	059335		12	300	036547 036548	-
				009330		12	300	030346	-
	5-1/2	140	036510	-		2-1/2" (65mm) d	iomotor		
	6	150	036511	059336				006440	050000
	8	200	036512	-		2-1/2 close	65	036442	059303
	10	250	036514	-		3	75 100	036549	059351
	12	300	036515	-		4 6	100 150	036550 036551	059351
						8	200	036551	059552
	1-1/4" (32mm) di	ameter				12	300	036553	-
	1-5/8 close	41	036439	059300		12	300	030333	_
	2	50	036450	059311		3" (75mm) diame	tor		
	2-1/2	65	036516	039311				026442	050204
				-		2-5/8 close	67 75	036443	059304
	3	75	036517	059338		3 4	75 100	036554 036555	059353 059354
	3-1/2	90	036518	-		5	125	036556	059354
	4	100	036519	059339		6	150	036557	059356
	4-1/2	115	036520	-		8	200	036558	-
	5	125	036521	059340		10	250	036559	_
	6	150	036522	059341		12	300	036560	_
	8	200	036523	-			- 200	- 220000	
	10	250	036524	-		4" (100mm) dian	neter		
	12	300	036525	-		2-7/8 close	72	036444	059305
						2-7/8 close 4	100	036562	033303
						5	125	036563	_
						6	150	036564	059357
						8	200	036565	-
						10	250	036566	-
						12	300	036567	-
							<del>-</del>		

## PRODUCT SELECTION CHART - XIRTEC 140 PVC SCH. 80 & CORZAN CPVC SCH. 80 FITTINGS

PVC Sch 80 CPVC Sch 80

	inches	mm	Product Code	Product Code
Exp	ansion Joint	6" (150mm)	Travel EPDM	
	1/2	12	136115	059973
	3/4	20	136117	059975
	1	25	136119	059977
	1-1/2	40	136121	059979
Ħ	2	50	136123	059981
Ц	3	75	136125	059983
	4	100	136127	059985

	Dimension		PVC Sch 80	CPVC Sch 80	
	inches	mm	Product Code	Product Code	
oly	propylene Pi	pe Clamps			
	1/2	12	035180	-	
	3/4	20	035181	-	
	1	25	035182	-	
	1-1/4	32	035183	-	
	1-1/2	40	035184	-	
	2	50	035185	-	

## Expansion Joint 12" (1300mm) Travel EPDM

Dimension

~	1/2	12	136116	059959
$\Box$	3/4	20	136118	059961
Ц	1	25	136120	059963
	1-1/2	40	136122	059965
T	2	50	136124	059967
	3	75	136126	059969
	4	100	136128	059971

#### **Strut Base**



Note: Strut Bases are sold individually, two Strut Bases are required to create one Strut Base Unit.

Example: If you require 10 complete Strut Base Units you must

order 20 strut bases.

035186

## Expansion Joint 6" (150mm) Travel Viton®

-					
	1/2	12	136101	059974	
	3/4	20	136103	059976	
	1	25	136105	059978	
	1-1/2	40	136107	059980	
	2	50	136109	059982	
	3	75	136111	059984	
	4	100	136113	059986	

### Pipe Straps 2 holes

	-	-			
6		1/2	12	036000	
	1)	3/4	20	036001	
l		1	25	036002	
	•	1-1/4	32	036003	
		1-1/2	40	036004	
		2	50	036005	

## Expansion Joint 12" (1300mm) Travel Viton®

1/2	12	136102	059960
3/4	20	136104	059962
1	25	136106	059964
1-1/2	40	136108	059966
2	50	136110	059968
3	75	136112	059970
4	100	136114	059972

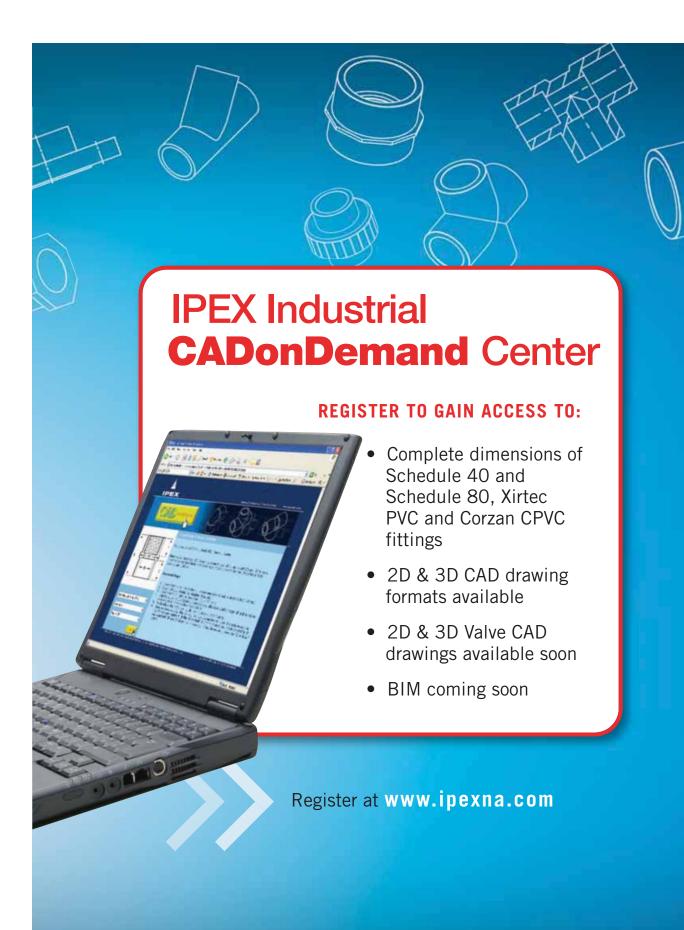
### Pipe Straps PVC Coated Steel 2 holes

		2-1/2	65	036006	
	/)	3	75	036007	
ŀ		3-1/2	90	036008	
	$\odot$	4	100	036009	
		5	125	036010	
		6	150	036011	

## **"U" Bend** 4" (100mm) O.C. for Ice Rink Piping

(10)	1	25	059019 Barbed end	
	1	25	- Plain End (Spigot)	

Fits 1" (25mm) ID Poly Pipe



## HIGH PRESSURE CLEAR-GUARD CLEAR PVC PIPE

1/2" - 8" (12mm - 200mm)

## Clear-Gu⊗rd™

IPEX Clear-Guard™ Clear PVC pipe provides a cost-effective multipurpose solution for many different piping applications. The benefits of rigid Xirtec®140 PVC piping are well documented including light weight, flexibility, durability and exceptional corrosion resistance. These benefits with the addition of clarity, are now available in our Clear-Guard Clear PVC pipe product. Our clarity provides 360° visibility for several applications including dual-containment, clean room and site glass applications.

With IPEX's new high pressure clear PVC pipe you can specify Schedule 40 clear pipe for applications where previously only Schedule 80 clear pipe would suffice. Our high pressure formulation, with a long-term hydrostatic design basis of 3,150 psi allows for better clarity and more versatility for various applications.

#### **APPLICATIONS**

- Clear-Guard Dual-Containment **Systems**
- Dual-Containment for High Purity Tubing
- Leak Detection Systems
- Agricultural & Aquacultural Applications
- Chemical Processing/Blending
- Healthcare/Hospital Use
- Laboratory Applications
- Environmental Applications
- Sight Gauge Assemblies
- Displays/Exhibits
- Food & Beverage Processing
- and more ...

#### **ADVANTAGES**

- Sizes range from 1/2" to 8" Schedule 40 pipe
- Standard 10 foot lengths
- 20 foot lengths available by special order
- **Certified to NSF-61**
- 3,150 psi HDB tested in accordance with
- **ASTM D2837**

Pressure and Vacuum service

#### STANDARDS









#### **COMPATIBILITY & PRESSURE RATING**

IPEX Clear-Guard Clear PVC pipe is produced from a rigid, virgin Polyvinyl Chloride (PVC) compound with a Cell Classification of 15334 per ASTM D1784. This material also enables Clear-Guard Clear PVC piping to carry a maximum service temperature of 140°F when appropriate temperature/pressure de-rating factors are applied.

As with our Xirtec140 PVC piping system our pressure ratings are dependent on the pipe diameter and the operating temperature of the system. As temperatures increase, the pressure rating of the system decreases. Refer to the table for de-rating factors on our Clear-Guard pressure ratings.

This material is compatible with Xirtec140 PVC pipe, fittings and valves, and can be joined into existing PVC systems using the appropriate solvent cement joining process.

#### **JOINING TECHNIQUES**

IPEX Clear-Guard Clear PVC pipe is easily joined by the solvent cementing process, providing a quick, strong, leak-tight seal for pressure applications.

To maintain the system's clarity, IPEX recommends the use of a clear, mediumbodied, fast-setting cement in conjunction with a clear primer for optimum joint integrity. As an added advantage due to the product's transparency, joint integrity is readily identified during the solvent cement joining process.

Details on proper solvent cementing techniques are available and must be reviewed for proper assembly and joint integrity.

Operating Pressure De-rating Factor
1.00
0.88
0.75
0.62
0.51
0.40
0.31
0.22





Clear-Guard™ has a higher Pressure Rating when compared to the competition

IPEX Clear-Guard PVC 3150 = HDB* @ 73°F					
Size	Product Code	Sch 40 Pressure Rating			
1/2"	22003	480			
3/4"	22009	390			
1"	22014	360			
1-1/4"	22026	290			
1-1/2"	22031	260			
2"	22036	220			
3"	22045	210			
4"	22053	180			
6"	22057	140			
8"	22198	120			

<sup>\*</sup> HDB = Hydrostatic Design Basis – the established stress value for a compound at a specific temperatuere

## ENPURE HIGH PURITY

## enpure \*\*

Enpure® proves itself as the superior high purity system manufacturing industries and research facilities are increasingly requiring high purity water systems that will meet the stringent requirements of their operations. Whether the application is for ultra pure water or for transporting chemically pure agents of foodstuffs, water purification technologies such as distillation, de-ionization, reverse osmosis and filtration eliminate a variety of impurities such as bacteria, particulates and both organic and inorganic contaminants.

The purity of a system depends on the leach ability of the material and joining method used to assemble the system.

Traditional materials used for handling high purity water have been metal and glass piping. The issue is that metals can exhibit problems with trace metal contamination; and elements such as sodium, boron, silica, lead and arsenic can be leached out of glass piping.

Over the past twenty years, advances in thermoplastic technology have enabled the effective use of plastics for high-purity water distribution systems, even in aggressive ultra high purity applications.

**DID YOU KNOW?** 

#### **APPLICATIONS**

- Food processing
- Laboratories
- Hospitals
- Universities
- Research facilities
- Biotechnology
- Chemical manufacturing
- Photographic chemical processing
- Effluent treatment plants
- Water treatment plants
- Pharmaceutical manufacturing

#### **STANDARDS**



FDA Code of Federal Regulations CFR Title 21-177.1520 2002

28



Enpure is manufactured from special high purity natural polypropylene

#### **ADVANTAGES**

#### 1 Virgin Material

Enpure is manufactured from special high purity virgin polypropylene materials. No regrind material is used in the manufacturing process, thereby avoiding contamination by colorants or other materials and potential loss of physical properties due to the incorporation of heat stressed materials.

#### Abrasion Resistance

The inherent abrasion resistance of natural PP allows substantial increases in life expectancy compared to other materials. In many applications, natural polypropylene outperforms other materials such as metals.

#### (3) Improved Flow

IPEX piping is smooth and has a substantially lower roughness factor than metal and other materials, and since thermoplastics do not rust, pit, scale or corrode, the interior walls remain smooth in virtually any service.

#### 4 Biological Resistance

Enpure natural PP piping is resistant to fungi and bacterial growth. The smoothness of the interior walls inhibits bacterial growth by eliminating sites where bacteria can adhere.

#### 5 Chemical Resistance

Enpure natural PP offers a complete high purity system including pipe, fittings and valves with outstanding resistance to most organic and inorganic chemicals in common use. It is potentially vulnerable to strong oxidizing acids, certain organic solvents and chlorinated hydrocarbons.

#### **6** Corrosion Resistance

Our thermoplastic materials are immune to damage from naturally corrosive soil conditions as well as electrochemical or galvanic corrosion. These noncorroding properties extend service life and lower maintenance costs even in below-grade applications

#### Extended Life

Once properly selected for the application and correctly installed, Enpure products provide years of maintenance free service.

#### **8** Lower Costs

IPEX Enpure natural PP has lower material and installation costs than other comparable materials such as stainless steel or PVDF.

#### Service Temperature

IPEX Enpure line of pipe, fittings and valves are designed to meet the highest purity standards. It is because of this that there are no additives in the virgin polypropylene material. Additives such as antioxidants and UV stabilizers help thermoplastic materials with oxidation resistance. Since Enpure does not contain these additives, it is pressure rated at 73°F (23°C) and will experience lower pressure capabilities and a shortened service life if operated at elevated temperatures.

#### 10) Standards and Approvals

IPEX manufactures the widest range of thermoplastic piping systems available. All products are produced to the strictest internal quality control specifications and meet or exceed applicable regulatory standards.

#### **VALVE SELECTION**

As is the case with other thermoplastic components in a processing system, a valve must be selected based on the characteristics of the fluid medium, the system's operating parameters, and its intended function for a particular application. Certain valve types are more suitable than others for on/off service, throttling or modulating, automation, back flow prevention, etc. The following table summarizes the valves offered as part of the Enpure system.

Some other considerations that may be important when selecting a valve include: physical space requirements or constraints, connection style, manual or remote operation, as well as position indication or feedback.

#### **AUTOMATED VALVES**

IPEX can provide quarter turn pneumatic or electric actuators and mounting assemblies for Enpure ball valves. Pneumatic actuator bonnets are also available for Enpure diaphragm valves. A wide selection of accessories such as pilot solenoid valves, position indicators, and microswitches, allow various control and feedback options. Please refer to the Thermoplastic Valves and Quarter Turn Automation literature or contact IPEX for further details regarding availability.

#### **ENPURE NATURAL PP VALVES**

Valve Type	Sizes	Materials	Connections/ Style	Pressure Rating (psi) at 73°F
VKD Series Ball Valves	1/2 - 2	Natural PP	Socket, Flange	150
VM Series Diaphragm Valves	1/2 - 2	Natural PP	Socket, Flange	150
SR Series Ball Check Valves	1/2 - 2	Natural PP	Socket, Flange	150

#### SHORT FORM SPECIFICATIONS

#### SCOPE

All high-purity water piping as shown on drawings shall be socket-fused, virgin natural polypropylene (containing no regrind material) as manufactured by IPEX. The complete system of piping, valves, fittings, faucets, pipe supports and fusion equipment shall be supplied and warranted by a single manufacturer.

#### **DIMENSIONS**

Physical dimensions of Enpure PP pipe and fittings shall meet or exceed Schedule 40 and Schedule 80 requirements.

#### **PIPING**

Piping shall be manufactured in 10' or 20' (3 m or 6.1 m) lengths to Schedule 40 and Schedule 80 dimensions from virgin, unpigmented, Type 2 high-impact copolymer polypropylene conforming to ASTM D 4101, using no antioxidants or plasticizers.

Piping shall be capped at each end and boxed for protection and cleanliness at the point of manufacturing.

#### **FITTINGS**

Fittings shall be manufactured from virgin, unpigmented, Type 2 high-impact copolymer polypropylene conforming to ASTM D 4101, using no antioxidants or plasticizers. Fittings shall be designed for socket fusion utilizing IPEX socket fusion tools and shall have a working design pressure of 150 psi at 73°F (1,000 kPa @ 23°C). All fittings shall be packaged in polybags at the point of manufacturing to preserve fitting cleanliness.

#### **FAUCETS**

All metal faucets shall be polyster powered lacquer coated and have non-pigmented polypropylene wetted parts. Faucets shall be recirculating- style to ensure the elimination of static water pockets and shall be rated at 150 psi @ 73°F (1,000 kPa @ 23°C). All faucets shall be fully compatible with all other natural polypropylene piping components in terms of dimensions, quality and purity.

#### **VALVES**

All valves shall be manufactured from virgin, unpigmented type 1
Homopolymer polypropylene conforming to ASTM D 4101, using no antioxidants or plasticizers that could compromise water quality. Valves shall be designed for socket fusion utilizing IPEX socket fusion tools and shall have a working design pressure of 150 psi @ 73°F (1,000 kPa @ 23°C).

- All ball valves shall be double-blocking type with o-ring cushions under the PTFE seats, in-line micro adjustment capability and incorporate a spanner wrench in the handle.
- All diaphragm valves shall be weir-style featuring smooth (non-drilled) GRF bonnets with integrated fasteners (for cleanliness) and rising position indicator.
- All valves with EPDM diaphragms shall feature concentric ridges on valve body and smooth diaphragms.
- All valves with PTFE diaphragm shall feature machined (smooth) bodies and rigid PTFE diaphragms for positive seal and longer cycle life.
- All ball check valves shall be single union design with micro adjustable locking seat carrier.

#### **SUPPORTS**

All piping supports shall incorporate IPEX Cobra clips manufactured from U.V. stabilized polypropylene and designed to allow free axial pipe movement during expansion and contraction of a pipe system. Support spacings shall be to the manufacturer's recommendations for the design temperature of the system.

#### **INSTALLATION**

Installation shall be in accordance with the contract drawings, the manufacturer's recommendations and the local building codes. The entire system shall be installed stress-free and in proper alignment, with due allowance for expansion and contraction.

#### **TESTING**

The water-testing requirements on any complete piping system vary dramatically depending on the operating pressure, temperature, installation conditions, jointing method and the proposed service medium. If the testing is not determined by the engineer or governed by regulatory code, the manufacturer should be contacted.

Air or compressed gas shall never be used for pressure testing rigid thermoplastic piping systems.

#### JOINING METHODS

Joining methods should also be considered when reviewing sources of potential contamination. Not all joining methods are equal. Some joining methods can introduce contaminants into the system that are not introduced by the pipe material itself.

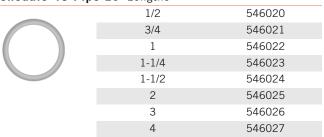
Below is a breakdown of the most common joining methods and their potential affects on purity. To ensure a contamination-free system, Enpure utilizes a socket fusion joining method.

Purity Level	Joining Methods	Description	
•	Threaded Metal Joints	Threaded metal components may cause leaching of contained metals, local stagnation of fluid flow and may produce potential sites for bacterial growth when used with high purity water.	
• •	Soldered Metal Joints	Oxidation at welded, braised or soldered metal joints can cause contamination when exposed to the high purity water.	
• • •	Solvent Welded Joints	Solvent welded plastic joints, unless carefully made and cured, can contribute contamination to high purity water.	
• • • •	Socket Fusion	Socket fusion is a simple process of melting and fusing components together resulting in a clean homogeneous joint. As no compounds are used in the process, sources of material contamination are eliminated. For these types of applications, socket fusion is the joining method of choice.	

#### PRODUCT SELECTION CHART

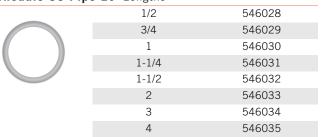
	Dimension inches	Product Code		Dimension inches	Product Code
Schedule 40 Pip	<b>e</b> 10' Lengths		Schedule 80 Pipe	10' Lengths	
	1/2	546000		1/2	546008
	3/4	546001		3/4	546009
( )	1	546002	(( ))	1	546010
	1-1/4	546003		1-1/4	546011
	1-1/2	546004		1-1/2	546012
	2	546005		2	546013
	3	546006		3	546014
	4	546007		4	546015

#### Schedule 40 Pipe 20' Lengths



Note: 20' Enpure pipe lengths are non-stock items available upon special request.

#### Schedule 80 Pipe 20' Lengths



Note: 20' Enpure pipe lengths are non-stock items available upon special request.

#### **Dimension** Product Code inches **Coupling** Soc 1/2 537122 3/4 537123 1 537124 1-1/4 537125 1-1/2 537126 2 537127 3 537128 4 537129

	Dimension inches	Product Code
Cap Soc		
	1/2	537182
$(\bigcirc)$	3/4	537183
	1	537184
	1-1/4	537185
	1-1/2	537186
	2	537187
	3	537188

#### 90° Elbow Soc 1/2 537142 3/4 537143 1 537144 1-1/4 537145 1-1/2 537146 2 537147 3 537148 4 537149

Stub Flange Soc				
	1/2	537192		
	3/4	537193		
	1	537194		
	1-1/4	537195		
	1-1/2	537196		
	2	537197		
	3	537198		
	4	537099		

45° Elbow Soc 1/2 537152 3/4 537153 1 537154 1-1/4 537155 1-1/2 537156 2 537157 3 537158 4 537159

Steel Backing Flange - ASA 150 Drilling				
	1/2	537222		
	3/4	537223		
	1	537224		
	1-1/4	537225		
	1-1/2	537226		
	2	537227		
	3	537228		
	4	537229		

Tee Soc				
	1/2	537162		
	3/4	537163		
	1	537164		
	1-1/4	537165		
	1-1/2	537166		
	2	537167		
	3	537168		
	4	537169		

Note: One stub flange and one steel backing flange are required for complete flange system.

Note: One stub flange and one steel backing flange are required for complete flange system.

# Union w/ Viton® Seals Soc



1/2	537172
3/4	537173
1	537174
1-1/4	537175
1-1/2	537176
2	537177

#### Blind Flange - ASA 150 Drilling



_		
	1/2	537212
	3/4	537213
	1	537214
	1-1/4	537215
	1-1/2	537216
	2	537217
	3	537218
	4	537219

Dimension inches	Product Code

#### Reducer Bushing Soc



300				
3/4 x 1/2	537241			
1 x 1/2	537242			
1 x 3/4	537243			
1-1/4 x 1	537244			
1-1/2 x 1	537245			
1-1/2 x 1-1/4	537246			
2 x 1	537247			
2 x 1-1/4	537248			
2 x 1-1/2	537249			
3 X 1-1/2	537250			
3 x 2	537251			
4 x 2	537252			
4 x 3	537253			

#### 90° Bend Soc



1/2	537272
3/4	537273
1	537304
1-1/4	537305
1-1/2	537306
2	537307
3	537308
4	537309

#### Nipple - 6" Long Sp x MPT



1/2	537322
3/4	537323
1	537324
1-1/4	537325
1-1/2	537326
2	537327
3	537328
4	537329

#### Cobra Pipe Clip - PP



1.1	
1/2	437341
3/4	437342
1	437343
1-1/4	437344
1-1/2	437345
2	437346
3	437348
4	437349

Note: \* 1/2" and 3/4" pipe clips are supplied without retaining bands.

Dimension	Product
inches	Code

#### Female Adapter Soc x FPT



J	300 X 11 1			
	1/2 x 1/2	537362		
	1/2 x 1/4	537370		
	1/2 x 3/8	537371		
	3/4 x 3/4	537363		
	1 x 1	537364		
	1-1/4 x 1-1/4	537365		

#### VKD True Union Ball Valve w/ Viton® Seals Soc



1/2	537031
3/4	537032
1	537033
1-1/4	537034
1-1/2	537035
2	537036

#### End Connectors for True Union Ball Valves Soc



1/2	537014
3/4	537015
1	537016
1-1/4	537017
1-1/2	537018
2	537019

#### **UPP Diaphragm Valve - PTFE Diaphragm** Soc



1/2	537451
3/4	537453
1	537455
1-1/4	537456
1-1/2	537457
2	537458

# PRODUCT SELECTION CHART

Dimension	Product
inches	Code

#### Dimension Product Code inches

#### **UPP Diaphragm Valve - EPDM Diaphragm** Soc



1/2	537469
3/4	537470
1	537471
1-1/4	537472
1-1/2	537473
2	537474

<b>Heater Bushing</b>	Set-	PTFE	Coated	(1	x Soc,	1	Χ	Sp
-----------------------	------	------	--------	----	--------	---	---	----

•	ot ille odatou (	1 x 50c, 1 x 5p)
	1/2	537382
	3/4	537383
	1	537384
	1-1/4	537385
	1-1/2	537386
	2	537387
	3	537388
	4	537389

537480

#### Single Union Ball Check Valve w/ Viton® Seats & Seals Soc



1/2	53//84
3/4	537785
1	537786
1-1/4	537787
1-1/2	537788
2	537189

#### **Recirculating Faucet Sp**



Socket Fusion Joining Kit c/w Full Set of Heater Bushings

1/2 to 2	537401
1/2 to 4	537404

#### **Tempilstiks**

537406
537407

#### Socket Fusion Joining Tool - Paddle Only

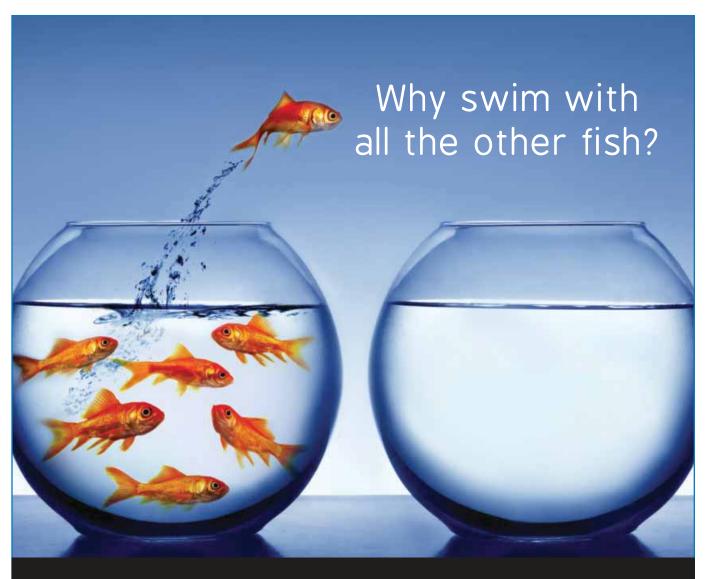


1/2 to 2 537403 1/2 to 4 537400	0	•
1/2 to 4 537400	1/2 to 2	537403
	1/2 to 4	537400

#### Bench Fusion Joining Kit c/w Full Set of Heater Bushings

1/2 to 4

537410



### IPEX Industrial - Tough Products for Tough Environments

#### THE IPEX SYSTEM ADVANTAGE

The IPEX advantage is obvious. Every plastic pipe, valve and fitting you need for any project; available from a single, reliable source.

Only IPEX offers a complete system of pipe, valves and fittings engineered and manufactured to IPEX's strict quality, performance and dimensional standards. Available in PVC, CPVC, ABS, and natural Polypropylene – for Process Piping, Double Containment, High-Purity, Acid Waste, and Compressed Air applications, as well as a full range of specialty products and systems.

## LEADER IN THERMOPLASTIC PIPING SYSTEMS

IPEX designs and manufactures one of the world's most diverse lines of integrated thermoplastic piping systems. All engineered from the ground up to handle the full range of today's industrial, mechanical, municipal, and electrical applications.

An industry pioneer with more than 50 years of experience in plastic piping systems combined with progressive manufacturing technologies, efficient distribution centers and coast-to-coast customer support. When you choose IPEX, you can be confident that all your piping materials are backed by one company.

# DURAPLUS ABS INDUSTRIAL

# Duraplu

The Duraplus® Industrial Piping System by IPEX offers a complete range of ABS pressure pipe, valves and fittings that are ideal for demanding applications ranging from abrasive slurries and separation reagents to caustic processes and low temperature glycol systems. These rugged Duraplus components operate over a wide range of temperatures while delivering excellent material properties including:

- Exceptional Toughness
- Non-Toxicity
- Corrosion Resistance

This design and installation manual provides the most up-to-date comprehensive information about IPEX's Duraplus ABS Industrial Piping System. By combining IPEX's laboratory test results with over 50 years of field experience, we have produced a manual suited to engineers, contractors and distributors alike. All aspects of Duraplus are described here – from basic raw material properties through to installation procedures of the finished product.

IPEX offers matched Duraplus pipes, fittings and valves in IPS sizes ranging from 3/8" to 12" nominal diameter, suitable for pressures up to 230 psi at 73°F (23°C) (depending on the size).

#### **DURAPLUS® FEATURES:**

- High impact strength
- Outstanding ductility
- Wide chemical resistance
- Competitive installed cost
- Operating range from -40°F to +176°F
- Long term UV resistance
- Multiple proven and easy joining methods

#### **APPLICATIONS**

#### Chilled water / HVAC

Chilled Water Lines Cooling Tower Pipes
Condensate Drain Humidification Supply
Lines Lines

#### Off Shore Applications

"Mud" Systems
Topside (low pressure)
Operations
Vacuum Systems (Drill
Cuttings Transport)
Deck Wash System –
Supply & Drainage
Deluge Systems
(Emergency Showers/Eye
Baths)
Chilled Water (Air
Conditioning)
Potable Water
Black Water Drainage
Compressed Air

#### Mining

Slurries Chemical Treatment
Water Lines Tailing Lines
Vent Piping

#### Secondary Loop Refrigeration

Glycol Chilled Lines

#### **STANDARDS**

The ABS compound used in the manufacturing of Duraplus ABS Industrial Pipe complies with the material requirements of ASTM D3965, "Standard Specification for Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings". The ABS material has an IZOD impact resistance of not less than 5ft.lb/in at -22°F per ASTM D256.

#### **ADVANTAGES**

1 Lightweight

Duraplus Industrial ABS material is 1/8 the weight of steel and 1/5 the weight of copper.

Simple, reliable joining method

Solvent cemented joints can be made quickly and easily without expensive equipment or certifications. Flanging and threaded joints are also possible.

Grooved joints

Allow quick assembly and disassembly, pipe rotation for even wear and cleaning of individual pipe sections.

Wide range of pressure and temperature capabilities

Operating pressures from drainage up to 230 psi and temperature range from -40°F to 176° F (-40°C to 80°C) make this product suitable for the harshest environments.

**5** Lower installation costs

Duraplus Industrial ABS is less expensive to install because of its simple joining methods – its lightweight and ease of handling.

6 Lower maintenance costs

Duraplus Industrial ABS has excellent chemical resistance, corrosion resistance and impact resistance resulting in a piping system that lasts longer.

No heat, no sparks, no open flames

Pipe can be joined to fitting without the necessity of heat.

8 Abrasion resistance

The rubber-like poly-butadiene phase gives Duraplus Industrial ABS exceptionally good abrasion resistance to slurries and other abrasive media.

### DID YOU KNOW?

Duraplus Industrial ABS is an extremely versatile process piping system that combines ruggedness, chemical resistance, light weight and ease of installation.

The most common applications for Duraplus Industrial ABS utilizes its outstanding impact resistance, ductility and abrasion resistance at both low and high temperatures.



#### SHORT FORM SPECIFICATIONS

#### **GENERAL**

Duraplus ABS is designed for industrial pressure pipe applications where the extremely high-impact resistance and ductility of the material offers some insurance against internal and external shock loadings and site abuse conditions. It's unique combination of ABS properties – non-toxicity, purity, corrosion- and chemical-resistance, toughness, low-hydraulic resistance, and the ability to perform over a wide temperature range (-40°F to +176°F) ensures excellent in-service performance and system life.

#### **MATERIAL SPECIFICATION**

Pipe and fittings shall be manufactured from a copolymeric material – Acrylonitrile Butadiene Styrene (ABS) – conforming to a 43232 cell classification in accordance with ASTM D3965.

Material for both pipe and fittings shall have a design stress of not less than 2,000 psi, and shall be designed with a 2 to 1 safety factor for a 50 year lifespan when operated under continuous pressure.

The material shall have an izod impact resistance value of not less than 6 ft./lb. at 73°F and 3 ft./lb. at -22°F, when tested in accordance with ASTM D256, method 'A'.

#### **PIPE**

Pipes shall be manufactured by IPEX and designed on a Standard Dimension Ratio (SDR) basis to give various pressure ratings as described below:

Pipe Class	SDR	Continuous Pressure Rating at 73°F (23°C)	Size Range
Class 90 psi	SDR 24.0	90 psi (6 bar)	10" & 12"
Class 115 psi	SDR 19.0	115 psi (8 bar)	6" & 8"
Class 145 psi	SDR 15.5	145 psi (10 bar)	1" to 8"
Class 180 psi	SDR 12.5	180 psi (12 bar)	1" to 6"
Class 230 psi	SDR 10.0	230 psi (16 bar)	3/8" to 4"

#### **FITTINGS**

Fittings shall be of the socket type, designed for solvent welding as supplied by IPEX.

Fittings shall be designed and manufactured so that they withstand the continuous pressures applicable to the maximum pressure native of the pipe.

#### **SOLVENT CEMENT**

All joints shall be made with Gray Duraplus ABS solvent cement as supplied by IPEX.

The solvent cement shall be designed to withstand continuous applied pressures up to 230 psi at 73°F.

#### **DESIGN AND INSTALLATION**

The design and installation of ABS pressure systems shall be performed in accordance with the recommendations detailed in the Handling and Installation section of this manual, local and national regulations where applicable.

To ensure the full integrity of the completed system, all components shall be supplied by IPEX.

# DURAPLUS ABS INDUSTRIAL

#### **Dimension Product** Code inches

Pipe - 90 psi at 73° F



10	346034
12	346035

Standard length of pipe is 20 feet.

Pipe - 145 psi at 73° F



1	346003
1-1/2	346004
2	346005
3	346007
4	346008
6	346009
8	346010

Standard length of pipe is 20 feet.

Pipe - 180 psi at 73° F



1	346013
1-1/4	346014
1-1/2	346015
2	346011
3	346016
4	346017
6	346012

Standard length of pipe is 20 feet.

Note: 180 psi pipe is a non-stock item available upon special request.

Minimum runs are required.

#### Pipe - 230 psi at 73° F



3/8	346018
1/2	346019
3/4	346020
1	346021
1-1/4	346022
1-1/2	346023
2	346024
3	346025
4	346026

The standard pipe length for 3/8" and 1/2" pipe is 10 feet. The standard length for all other sizes is 20 feet.

Dimension	Product
inches	Code

Class "T" - Suitabl

ıb	le for Threading	
	3/8	346033
	1/2	346027
	3/4	346028
	1	346029
	1-1/4	346030
	1-1/2	346031
	2	346032

#### Saddle Clip - Polypropylene



3/8	337453
1/2	337454
3/4	337455
1	337456
1-1/4	337457
1-1/2	337458
2	337459
3	337460
4	337461

#### Cobra Pipe Clip - Polypropylene



71 17	
3/8	437340
1/2	437341
3/4	437342
1	437343
1-1/4	437344
1-1/2	437345
2	437346
2-1/2	437347
3	437348
4	437349

Note: \*3/8" 1/2" and 3/4" pipe clips are supplied without retaining bands.

Coupling Soc		
	3/8	337021
	1/2	337022
	3/4	337023
	1	337024
	1-1/4	337025
	1-1/2	337026
	2	337027
	3	337028
	4	337029
	6	337030

8

10

12

Dimension

inches

Product Code

337031

337032

337033

# Dimension Product inches Code

#### Gasket - Full Face, Drilled ASA 150, Neoprene



1/2	337439
3/4	337440
1	337441
1-1/4	337442
1-1/2	337443
2	337444
3	337445
4	337446
6	337447

Flange - Stub Soc

	_
	$\supset$
	=
	_

2	337235
3	337236
4	337237
6	337238
8	337239
10	337243
12	337244

Note: A metal backing ring must be used with this flange.

#### Flange - Full Face, Drilled ASA 150 Soc



- /	
1/2	337353
3/4	337354
1	337355
1-1/4	337356
1-1/2	337357
2	337358
3	337359
4	337360
6	337361

Note: A metal backing ring must be used with this flange.

#### Gasket - Stub Flange, Neoprene



2	337448
3	337449
4	337450
6	337451
8	337452
10	337422
12	337423

Note: It is essential that steel backing rings are used with all types of stub, full face and blind flanges.

#### Flange - Full Face, Undrilled Soc



1/2	337226
3/4	337227
1	337228
1-1/4	337229
1-1/2	337230
2	337231
3	337232
4	337233
6	337234

Note: A metal backing ring must be used with this flange.

Dimension inches	Product Code

#### Backing Ring - Galv, M.S. Drilled ASA 150



1/2	337426
3/4	337427
1	337428
1-1/4	337429
1-1/2	337430
2	337431
3	337433
4	337434
6	337435
8	337436
10	337437
12	337438

Note: For use with flanges.

#### Blind Flange - Drilled ASA 150



Note: A metal backing ring must be used with this flange.

Undrilled flanges are available at the same price as drilled. Order code 131.

#### Cap Soc



3/8	337245
1/2	337246
3/4	337247
1	337248
1-1/4	337249
1-1/2	337250
2	337251
3	337252
4	337253

#### Union - EPDM Seal Soc



3/8	337270
1/2	337271
3/4	337272
1	337273
1-1/4	337274
1-1/2	337275
2	337276
3	337277
4	337278

Dimension	Product
inches	Code

#### Union ABS Soc x Brass Female Thread



*3/8	337279
1/2	337280
3/4	337281
1	337282
1-1/4	337000
1-1/2	337283
2	337284

<sup>\*</sup> Discontinued when stock is depleted

#### 90° Elbow Soc



3/8	337132
1/2	337133
3/4	337134
1	337135
1-1/4	337136
1-1/2	337137
2	337138
3	337139
4	337140
6	337141
8	337142
*10	337011
*12	337012

<sup>\*</sup>Only available in spigot x spigot.

#### 45° Elbow Soc



3/8	337156
1/2	337157
3/4	337158
1	337159
1-1/4	337160
1-1/2	337161
2	337162
3	337163
4	337164
6	337165
8	337166
*10	337013
*12	337014

<sup>\*</sup>Only available in spigot x spigot.

Only the correct Duraplus® cement will provide a compatible joint. All warranties void if other cement used.

	Dimension inches	Product Code
90° Bend - Short	Radius Soc	
	1/2	337148
	3/4	337149
	1	337150
	1-1/4	337151
	1-1/2	337152
	2	337153

3

4

337154

337155

#### 90° Bend - Long Radius Sp (Center Line Radius = 4xD)



3	337320
4	337321
6	337322
8	337323
*10	337324
*12	337325

 $<sup>^{\</sup>ast}$  Please note center line radius of 10" & 12" varies from 4xD

#### 45° Bend - Long Radius Sp (Center Line Radius = 4xD)



3	33/330
4	337331
6	337332
8	337333
*10	337334
*12	337335

 $<sup>^{\</sup>ast}$  Please note center line radius of 10" & 12" varies from 4xD

#### Tee Soc



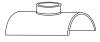
3/8	337170
1/2	337171
3/4	337172
1	337173
1-1/4	337174
1-1/2	337175
2	337176
3	337177
4	337178
6	337179
8	337180
*10	337015
*12	337016

<sup>\*</sup> Only available in spigot tees.

### Product Code inches

**Dimension** 

#### Saddle Soc



2 x 1-1/4	337205
3 x 1	337207
3 x 1-1/2	337208
4 x 1	337209
4 x 2	337210
6 x 1	337211
6 x 1-1/2	337212
6 x 2	337213

#### 45° Wye Soc



1/2	337214
3/4	337215
1	337216
1-1/4	337217
1-1/2	337218
2	337219

#### 45° Wye - Fabricated Sp x Sp



3	337220
4	337221
6	337222
8	337223
10	337224
12	337225

#### **Reducer Bushing**



Sp x Soc	
1/2 x 3/8	337050
3/4 x 1/2	337051
1 x 1/2	337052
1 x 3/4	337053
1 1/4 x 1/2	337045
1 1/4 x 3/4	337046
1 1/4 x 1	337054
1 1/2 x 1/2	337047
1 1/2 x 3/4	337048
1 1/2 x 1	337055
1 1/2 x 1 1/4	337056
2 x 3/4	337049
2 x 1	337057
2 x 1 1/4	337058
2 x 1 1/2	337059
3 x 1 1/2	337061
3 x 2	337062
4 x 3	337064
6 x 4	337065
8 x 6	337066
10 x 8	337067
12 x 10	337068

<sup>\*\*\*</sup> All Threads are BSP tapered unless otherwise noted \*\*\*

\cuucci	Dus

Dimension	Product
inches	Code

#### Reducer Bushing Male Thread x Female Thread

**1/2 x 3/8	337075
**3/4 x 1/2	337076
**1 x 3/4	337077

\*\* Discontinued when stock is depleted All Threads are BSP tapered unless otherwise noted

|--|

#### Female Adapter Sp x Female Thread



1/2	337257
3/4	337258
1	337259
1-1/4	337260
1-1/2	337261
2	337262

#### Reducer Bushing Sp x Female Thread



**1/2 x 3/8	337072
**3/4 x 1/2	337073
**1 x 3/4	337074

\*\* Discontinued when stock is depleted All Threads are BSP tapered unless otherwise noted

#### Nipple Sp x NPT



3/8	337340
1/2	337341
3/4	337342
1	337343
1-1/4	337344
1-1/2	337345
2	337346
3	337347
4	337348

Note: Systems using plastic threaded components are restricted to 180 psi. The use of PTFE sealing tape is recommended.

All Threads are BSP tapered unless otherwise

#### Reducer Coupler Soc



1/2 x 3/8	337120
3/4 x 1/2	337121
1 x 3/4	337122
1-1/4 x 1	337123
1-1/2 x 1-1/4	337124
2 x 1-1/2	337125
3 x 2	337126
4 x 3	337127
6 x 4	337128
8 x 6	337129
10 x 8	337130
12 x 10	337131

#### Plug Male Thread



1/2	337264
3/4	337265
1	337266
1-1/4	337267
1-1/2	337268
2	337269

#### Adapter Coupling Soc x Female Thread



1/2	337037
3/4	337038
1	337039
1-1/4	337040
1-1/2	337041
2	337042

#### VM Manual Diaphragm Valve - EPDM Diaphragm Sp



1/2	337643
3/4	337644
1	337645
1-1/4	337646
1-1/2	337647
2	337648
3	337649

Note: Other diaphragm materials are available upon request

Dimension	Product
inches	Code

#### VKD True Union Ball Valve - EPDM Seals Soc



3/8	337801
1/2	337802
3/4	337803
1	337804
1-1/4	337805
1-1/2	337806
2	337807
3	337808
4	337809

# Dimension Product inches Code

#### FK, Viton® Seals - Glass filled PP body



2	337656
3	337657
4	337658
6	337659
8	337660

Chemical duty (CD) - incorporating more chemically resistant components, this valve can be used with a wide range of organic or inorganic chemicals even at elevated temperatures.

#### Single Union Ball Check Valve - EPDM Soc



3/8	337727
1/2	337728
3/4	337729
1	337730
1-1/4	337731
1-1/2	337732
2	337733
3	337734

#### RV Y-Strainer EPDM Seals Soc



1/2	337739
3/4	337740
1	337741
1 1/4	337742
1 1/2	337743
2	337744

#### L Port Ball Valve - EPDM Soc



337720
337721
337722
337723
337724
337725

<sup>\*\*</sup> Discontinued when stock is depleted Note: T Port valves are available upon Request All Threads are BSP tapered unless otherwise noted

#### **Solvent Cement**



1 pint	337466
1 quart	337467

**Product** 

Code

#### Solvent Cement



1 pint	337468
1 quart	337469

#### FK, EPDM Seals - Glass filled PP Body



2	337651
3	337652
4	337653
6	337654
8	337655

General service (GS) - offered primarily for use with water, but suitable for a wide range of diluted chemicals, swimming pools, irrigation, potable water, etc. The GS valve is also suitable for compressed air and gases.

#### **Joints**

An indication of the number of joints likely to be made per quart of Duraplus® cement is as follows (it is recommended that MEK Cleaner order equals one-half the quantity of solvent cement required):

Liquid

Quantity

Number of Joints
290
144
48
32
16
10
4
4



### **IPEX Protects Your Investment**

Certain environments demand fail-safe systems. No leaks. No risk. IPEX understands the complexity of design and installation for demanding **DOUBLE CONTAINMENT** 

APPLICATIONS. And, unlike of manufacturers, 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

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 technologies.

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% 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









ncase

ardian

46

ustomguard 53

lear-Guard 54

Centra-Guard 55

# Enc@se™

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.

### **DID YOU KNOW?**

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

#### **ADVANTAGES**

#### **Polypropylene Material**

- Thirty 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 25 years

#### **Modular Design**

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

#### **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 buttwelded 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.

#### **Full Product Backup**

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

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



#### 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, buttwelded 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.

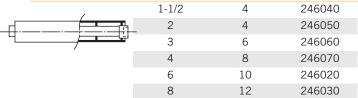
#### **TESTING**

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.

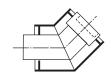
Dimensi	on inches	Product
Primary	secondary	Code

Dimension	ı inches	Product
Primary	secondary	Code

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







1-1/2	4	231141
2	4	231142
3	6	231143
4	8	231144
6	10	231139
8	12	231140

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



1-1/2	4	231313
2	4	231314
3	6	231315
4	8	231316
6	10	231311
8	12	231312

#### 1/4 Bend Soc x Sp



1-1/2	4	231134
2	4	231135
3	6	231136
4	8	231137
6	10	231132
8	12	231133

#### **Secondary Coupling** Soc



-	4	231114
-	6	231116
-	8	231118
-	10	231110
-	12	231112

#### 45° Wye Soc x Sp x Soc



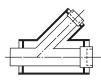
1-1/2	4	231153
2	4	231154
3	6	231155
4	8	231156
6	10	231151
8	12	231152

#### **Primary Coupling Soc**



1-1/	2	-	257141
2		-	257147
3		-	257150
4		-	257154
6		-	257158
8		-	257161

#### Reducing Wye Soc x Sp x Soc



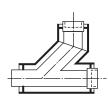
x 3p x 30c		
2 x 1-1/2	4 x 4	231187
3 x 1-1/2	6 x 4	231188
3 x 2	6 x 4	231189
4 x 2	8 x 4	231190
4 x 3	8 x 6	231191
6 x 2	10 x 4	231181
6 x 3	10 x 6	231182
6 x 4	10 x 8	231183
8 x 3	12 x 6	231184
8 x 4	12 x 8	231185
8 x 6	12 x 10	231186

#### Secondary Repair Coupling Soc



-	4	231004
-	6	231006
-	8	231008
-	10	231010
_	12	231009

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

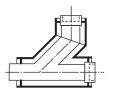


1-1/2	4	231203
2	4	231204
3	6	231205
4	8	231206
6	10	231201
8	12	231202

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.

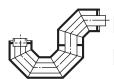
Dimension inches		Product
Primary	secondary	Code

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



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	

#### P-Trap Soc x Sp



3	6	231373
4	8	231374
6	10	231371
8	12	231375

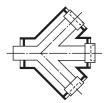
Product Code

#### Floor Drain Sp



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

#### 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

#### End Cap Soc



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

#### 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

#### End Seal Soc x Sp



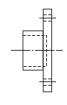
4	231483
4	231484
6	231485
8	231486
10	231481
12	231482
	6 8 10

#### P-Trap Soc x Sp



1-1/2	4	231361
2	4	231372

#### Flange - ASA 150 Soc



_	. 000		
	1-1/2	-	257361
	2	-	257365
	3	-	257366
	4	-	257367
	6	-	257368
	8	-	257369
	10	-	257362
	12	-	257363

#### PRODUCT SELECTION CHART

	Dimension inches		Product
	Primary	secondary	Code
Blind Flange - AS	A 150		
	1-1/2	-	231453
村	2	-	231454
	3	-	231455
-++	4	-	231456
	6	-	231457
苷	8	-	231458
	10	-	231451
	12	-	231452

1-1/2 2

3

6

8

Dimensi	on inches	Product
Primary	secondary	Code

#### Secondary Hub Clamp

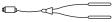


-	4	257258
-	6	231444
-	8	231445
-	10	231441
_	12	231///2

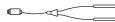
#### IPEX Control Unit (Current Style)



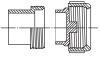
Kit includes hub clamps, 1 1/2" thru 6", connector cable & 5' link cable.



#### Connector Cable Old Style Machine



#### **Cleanout** Sp



1-1/2	-	257232
2	-	257235
3	-	257238
4	-	257241
6	-	257244

4

4

6 x 4

8 x 4

10 x 4

12 x 4

231425

231426

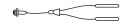
231421

231422

231423

231424

#### Connector Cable Current Style Machine



231301

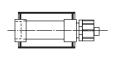
257124

257279

231302

#### **Cleanout Assembly Soc**

Access Tee Soc x Sp x Sp



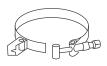
4	231383
4	231384
6	231385
8	231386
10	231381
12	231382
	8 10

#### Link Cable c/w EZ Connector



2 ft. EZ	4	257268
5 ft. EZ	6	257269
10 ft. EZ	8	257270
15 ft. EZ	10	257271

#### Primary Hub Clamp c/w Brass Nut



1-1/2	-	231741
2	-	231742
*3	-	231411
4	-	231743
6	-	231744
8	-	231745

<sup>\*</sup> Designed to be left on.

#### Encase Link Cable c/w Link Lead

5 ft.

50

Dimensi	on inches	Product
Primary	secondary	Code

Dimensio	n inches	Product
Primary	secondary	Code

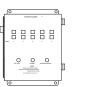
631188

#### Above Ground Leak Detection Station with Sensor

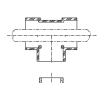


4	-	231834
6	-	231835
8	-	231836
10	-	231837

#### 5 Zone Panel



#### **Below Ground Leak Detection Station with Sensor**



	4	-	231838
	6	-	231839
	8	-	231840
200	10	-	231841
T. Carlotte	12	-	231842
Ř			

#### 10 Zone Panel



# Leak Detection Jumper Cable - - 631186

# GUARDIAN VINYL DOUBLE CONTAINMENT SYSTEMS

# Gu@rdian™

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.

### 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 preassembled spooled pieces to

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**

minimize installation time and

#### **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

field joints.

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<sup>TM</sup> 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-Gu⊲rd™

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"

FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

#### **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 maybe readily drained and manually checked for leaks.



# CENTRA-GUARD LEAK DETECTION

# Centra-Gu⊲rd™

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, reusability 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.

# FOR PRICING CONTACT YOUR IPEX REPRESENTATIVE.

#### 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	

SYSTE	EM	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

# Acid Waste Piping Systems









Enfield	Electro <sup>.</sup>	tusion Acid	Waste
System	s FRPP	& NRPP	

Labline Mechanical-Joint Acid Waste

Plenumline Mechanical Joint Acid Waste System FR-PVDF

Neutratank Neutralization Tanks HDPE & PP

58

70











# ENFIELD ELECTROFUSION ACID WASTE SYSTEMS

#### **ENFIELD**

Enfield electrofusion fittings are molded with an integral resistance wire in the socket, with jointing completed by energizing the resistance wire via a microprocessor controlled Enfusion Control Unit. The result of these innovations is an unparalleled level of joint reliability and repeatability. Enfield has proven over time that it produces the optimum level of performance where it matters most - at the joint interface. It offers unprecedented control of jointing - controlled fit, controlled temperature and controlled time.

#### **ADVANTAGES**

- Positive reliable joints made in 2 minutes installation time is reduced
- Several joints can be made at one time
- 3 Proven reliability for over a decade
- **Enfield is manufactured from polypropylene** which has an operating temperature range from -10°F (-23°C) to 212°F (100°C).\* This allows systems to be flushed with boiling water
- Heavy gauge resistance wire molded into sockets no loose components, controlled fusion of joints
- **Easy connecting** heavy duty socket terminal posts complete with protection ears
- Microprocessor controlled Enfusion unit ensures secure joints and joint repeatability
- 8 Matched system high quality pipe and fittings are matched to give ease of installation and long term reliability
- 9 Easy to install even in difficult areas
- 10 Installed cost 50% less than glass
- 11) Breakage factor eliminated
- (12) Maintenance free

#### **STANDARDS**









NSF-approved IAPMO-listed & CSA-certified Meets ASTM F1412, D4101 and CSA B181.3

#### DID YOU KNOW?

Enfield® offers polypro fittings, constructed with a heavy gauge resistance wire that is integrally molded into the socket. These are considered to be the premier fittings on the market.



50

#### SHORT FORM SPECIFICATIONS

#### **GENERAL**

Acid waste drain and vent system, as shown on drawings, shall be NSF listed and CSA certified Schedule 40, polypropylene as manufactured by IPEX. System to include pipe supplied in 10 ft. lengths (or 20 ft lengths if NFRPP is specified), fittings, traps and neutralization tanks from the same manufacturer. It shall also include recommended adapters to connect to other piping materials, where applicable.

#### **MATERIAL**

Pipe shall be made from NSF listed Type 1, flame retardant polypropylene conforming to ASTM D4101, with a maximum average flame spread of zero seconds and a maximum extent of burning of 13 mm, in accordance with ASTM D635. Matched fittings shall be made from NSF listed flame retardant polypropylene with average maximum burn time of 80 seconds and maximum extent of burning of 20 mm in accordance with ASTM D635.

If NFRPP pipe is specified, it shall be made from NSF 14 listed and CSA certified Schedule 40 PP as manufactured by IPEX. Pipe shall comply with ASTM F1412 and material used shall comply with the material requirements of ASTM D4101.

#### **FITTINGS**

Fittings shall be NSF listed and have an integral heavy gauge, nickel/chrome electrical resistance wire molded in place in the fitting body. Copper wire elements, loose wire or other loose joint components, are prohibited. Fittings shall be Enfield or approved equal.

#### **JOINTS**

Connections between polypropylene pipe and fittings shall be made using the Enfield joint. All joints shall have a fusion cycle controlled by a microprocessor operated, waterproof, Enfusion control unit equipped with input and output voltage sensors, ambient temperature sensors to automatically adjust fusion time and audible alarms to indicate cycle interruptions and completion of the joining process. The unit shall be capable of fusing multiple joints and with a minimum capability of eight 2" joints with the same fusion time as a single joint.

Connections between polypropylene and other piping materials shall be made using Enfield adapters according to manufacturer's (IPEX) recommendations. All electrofusion machines shall be third party certified by UL and CSA.

#### INSTALLATION AND TESTING

Installation and testing shall be in accordance with the contract drawings, the manufacturer's recommendations and the local plumbing codes. Testing with compressed air is prohibited. The entire system shall be installed free of stress and in proper alignment. Horizontal supports shall provide a wide bearing area and be free of burrs or sharp edges. Support spacings shall be in accordance with the manufacturer's recommendations and local plumbing codes. Vertical piping shall have riser clamps at each floor. Pipe supports should be installed so that horizontal piping is in uniform alignment and with a uniform slope of at least 1/8".



Dimension	Product
inches	Code

#### AW Polypropylene Pipe Flame Retardant Sch 40

	1-1/2	146001
	2	146002
(( ))	3	146003
	4	146004
	6	146006
	8	146008
	10	146010
	12	146012

10' Lengths

Dimension	Product
inches	Code

#### AW Polypropylene Pipe Flame Retardant Sch 40



1-1/2	146031
2	146032
3	146033
4	146034
6	146036
8	146038
10	146040
12	146042

20' Lengths

Note: 20' Schedule 40 FR pipe is a non-stock item available upon special order.

#### AW Polypropylene Pipe Flame Retardant Sch 80



1-1/2	146013
2	146014
3	146015
4	146016

10' Lengths

Note: 20' Schedule 80 FR pipe is a non-stock item available upon special order.

#### AW Polypropylene Pipe Flame Retardant Sch 80



1-1/2	146022
2	146023
3	146024
4	146025

20' Lengths

Note: 20' Schedule 80 FR pipe is a non-stock item available upon special order.

#### AW Polypropylene Pipe Black Non-Flame Retardant Sch 40



1-1/2	146101
2	146102
3	146103
4	146104
6	146106
8	146108
10	146110
12	146212

20' Lengths

#### AW Polypropylene Pipe Black Non-Flame Retardant Sch 80



1-1/2	146201
2	146202
3	146203
4	146204
6	146206
8	146208
10	146210
12	146211

20' Lengths

Dimension	Product
inches	Code

#### **Black Non-Flame Retardant Enfield Coupling**

2	257147
3	257150
4	257154
6	257158
8	257161
10	257143
12	257145

#### 90° Sweep Soc



1-1/2	257171
2	257172
3	257173
4	257174
6	257175

Product Code

Dimension

#### **Coupling** Soc



1-1/2	257141
2	257146
3	257149
4	257153
6	257157
8	257160
10	257142
12	257144

#### 90° Sweep Soc x Sp



'	
1-1/2	257281
2	257282
3	257283
4	257284
6	257286

#### Fabricated Repair Coupling Soc



ooupring 500	
2	257148
3	257152
4	257156
6	257159
8	257295

#### 1/8 Bend Soc



1-1/2	257191
2	257194
3	257195
4	257196
6	257197

#### 1/8 Bend Soc x Sp



1-1/2	257221
2	257222
3	257223
4	257224
6	257225

#### Fabricated 1/8 Bend Soc



8	257198
10	257192
12	257193

Dimension Product Code
------------------------

#### **1/4 Bend (90°)** Soc



1-1/2	257181
2	257184

#### 1/4 Bend (90°) Soc x Sp



•	
1-1/2	257291
2	257293

#### 1/4 Bend Soc x Loose Nut



1-1/2 257292

#### Fabricated 1/4 Bend (90°) Soc



8	257185
10	257182
12	257183

#### Sanitary Tee Soc



1-1/2	257201
2	257206
3	257208
4	257211

#### Dimension Product Code

#### Fabricated Sanitary Tee Soc



•••	,	
	6	257214
	8	257217
	10	257202
	12	257205

#### Reducing Sanitary Tee Soc



257207
257209
257210
257212
257213

<sup>\*</sup> Fabricated

#### Fabricated Reducing Sanitary Tee Soc



6 x 2	257215
6 x 4	257216
8 x 3	257163
8 x 4	257218
8 x 6	257219
10 x 3	257164
10 x 4	257203
10 x 6	257204
10 x 8	257165
12 x 4	257166
12 x 6	257167
12 x 8	257168
12 x 10	257169

#### Double Sanitary Tee Soc



*1-1/2	257351
2	257352
3	257354
4	257357
* Fabricated	

Dimension	Product
inches	Code

#### Fabricated Reducing Wye Soc

Dimension

#### 



2 x 1-1/2	257353
3 x 1-1/2	257355
4 x 2	257358
4 x 3	257359

C	sing wye Soc	
	8 x 2	257427
	8 x 3	257415
	8 x 4	257416
	8 x 6	257421
	10 x 3	257428
	10 x 4	257373
	10 x 6	257379
	10 x 8	257380
	12 x 3	257429
	12 x 4	257383
	12 x 6	257387
	12 x 8	257388
	12 x 10	257430

Product Code

#### 45° Wye Soc



1-1/2	257371
2	257390
3	257394
4	257400
6	257406

#### Fabricated 45° Wye Soc



8	257414
10	257372
12	257381

#### Combination Wye & 1/8 Bend (Long Turn Wye) Soc



1-1/2	257389
2	257392
3	257397
4	257403
6	257410

#### Reducing Wye Soc



C		
	2 x 1-1/2	257391
	3 x 1-1/2	257395
	3 x 2	257396
	4 x 1-1/2	257425
	4 x 2	257401
	4 x 3	257402
	6 x 1-1/2	257426
	6 x 2	257407
	6 x 3	257408
	6 x 4	257409

#### Fabricated Combination Wye & 1/8 Bend Soc



8		257417
10	)	257374
12	2	257384

Dimension	Product
inches	Code

#### Reducing Combination Wye & 1/8 Bend Soc



2 x 1-1/2	257393
3 x 1-1/2	257398
3 x 2	257399
4 x 1-1/2	257431
4 x 2	257404
4 x 3	257405
6 x 1-1/2	257432
6 x 2	257411
6 x 3	257412
6 x 4	257413

#### Reducing Double 45° Wye Soc



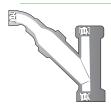
*2 x 1-1/2	257446
6 x 4	257458
t Fabriagtad	

Product Code

Fabricated

Dimension

#### Fabricated Reducing Combination Wye & 1/8 Bend Soc



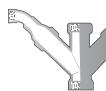
III	Commingrion	wye &	1/0	Dellu	50
	8 x 4		257	419	
	8 x 6		257	420	
	10 x 3		257	'375	
	10 x 4		257	376	
	10 x 6		257	377	
	10 x 8		257	'378	
	12 x 3		257	433	
	12 x 4		257	434	
	12 x 6		257	435	
	12 x 8		257	'386	
	12 x 10		257	'385	

#### Fabricated Reducing Double 45° Wye Soc



-		,
	3 x 2	257449
	4 x 2	257453
	4 x 3	257454
	8 x 6	257461
	10 x 4	257443
	10 x 6	257463
	10 x 8	257444
	12 x 4	257464
	12 x 6	257465
	12 x 8	257466
	12 x 10	257467

#### Fabricated Double Combination Wye & 1/8 Bend Soc



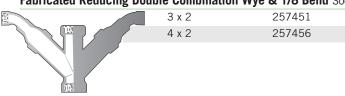
2	257447
3	257450
4	257455
6	257459

#### Fabricated Double 45° Wye Soc



2	257445
3	257448
4	257452
6	257457
8	257460
10	257442
12	257462

#### Fabricated Reducing Double Combination Wye & 1/8 Bend Soc



Dimension	Product
inches	Code

Dimension	Product
inches	Code

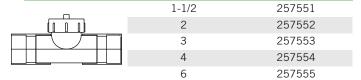
257176

# True Wye Soc



1-1/2	257341
2	257342

# Fabricated Cleanout Tee Sp



# Reducing True Wye Soc



2 x 1-1/2	257343
3 x 2	257344

# Molded Cleanout Tee Sp



# **Cleanout** Sp



1-1/2	257232
2	257235
3	257238
4	257241
*6	257244

\*Fabricated

# Fabricated Cap Soc



1-1/2	257541
2	257543
3	257544
4	257545
6	257546
8	257547
10	257542
12	257548

# Cleanout Plug Male Thread



1-1/2	25/233
2	257236
3	257239
4	257242

# Flange - ASA 150 Soc

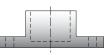
	1-1/2	257361
	2	257365
	3	257366
	4	257367
	6	257368

# Cleanout w/ Brass Plug Sp



1-1/2	257246
2	257231
3	257247
4	257248

# Fabricated Flange - ASA 150 Soc



8	257369
10	257362
12	257363

Product	Dimension
Code	inches

# Blind Flange - ASA 150

	1-1/2	231453
	2	231454
	3	231455
	4	231456
	6	231457
	8	231458
	10	231451

12

231452

Dimension	Product
inches	Code

# Adapter Female Thread x Loose Nut



<u> </u>	

# Adapter Soc x Loose Nut

1/2	257111

257101

# Fabricated Blind Flange - ASA 150

8	257370
10	257360
12	257364

# Male Adapter Soc x Male Thread



1-1/2	257121
2	257122

# Reducing Bushing Soc x Sp



2 x 1-1/2	257472
** 3 x 1-1/2	257473
3 x 2	257476
** 4 x 1-1/2	257474
4 x 2	257477
4 x 3	257479
6 x 1-1/2	257475
6 x 2	257478
6 x 3	257480
6 x 4	257483
8 x 3	257481
8 x 4	257484
8 x 6	257486
10 x 4	257482
10 x 6	257485
10 x 8	257487
12 x 4	257489
12 x 6	257490
12 x 8	257488
12 x 10	257471

<sup>\*\*</sup> Discontinued when stock is depleted

# Female Adapter Soc x Female Thread



1-1/2	257131
2	257132

# **Glass Adapter** Soc x Bead



1-1/2	257501
2	257502
3	257503
4	257504

# Cast Iron Adapter Soc x MJ Sp



1-1/2	257511
2	257512
3	257513
4	257514

Dimension	Product
inches	Code

Dimension Product inches Code

# 3"/12" FRPP Tail Piece Adapter



1-1/2 x 3	257133	
1-1/2 x 12	257134	
c/w Spig x Brass Compression Ring		

# P Trap - 3 piece Soc



3	257563
4	257564
6	257565
Shipped as 3 pieces	

# 1-1/2" x 12" FRPP Swivel Sink Strainer Adapter Sp x Female Thread Pipe Clip

257090



c/w Viton® Gasket

1-1/2 x 12



1-1/2	156251
2	156252

# FRPP Swivel Sink Strainer Adapter Sp x Female Thread



-	•
1-1/2	257093
*1-1/2	156450

c/w Viton® Gasket

# **Universal Trap** - Solid Base, P Type Soc x Female Thread



1-1/2	257521
1-1/2	257522

# P Trap - 2 piece Soc



3	1-1/2	257104
j	2	257105
	Shipped as 2 pieces	

# Universal Trap - Clear Base, P Type Soc x Female Thread



1-1/2	257531
1-1/2	257532

# Fabricated P Trap - 2 piece Soc



8	257566
10	257562
Shinned as 2 nieros	

# Universal Trap - Solid Base, S Type Soc



-1/2	257523

# Universal Trap - Clear Base, S Type Soc



1-1/2 257533

<sup>\*</sup>Pregrooved for Labline. Nut and Olive are extra.

# PRODUCT SELECTION CHART

	Dimension inches	Product Code
r Joint		
	3	257107

257108 257109

257279

Description	Product Code

# Connector Cable - NEW Style Machine





# Enfusion Control Unit - Complete Kit



Compensato

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

# Connector Cable - Old Style Machine



257263

# **Extension Pins**



- 257778

# Connector Cable - EZ Connector Cable



257294

# Enfusion Hub Clamp - New T Bar Handle & Bushing



	1-1/2	257254
	2	257256
9	3	257257
	4	257258
B	6	257259
	8	257260
	10	257255
	12	257262

# Link Cable c/w EZ Connector

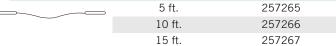
 2 ft. EZ	257268
5 ft. EZ	257269
10 ft. EZ	257270
15 ft. EZ	257271

# Stainless Steel T Handle for Hub Clamps

1-1/2 to 12

257125

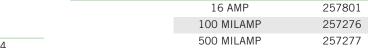
# Link Cable c/w Link Lead



# Oil Impregnated Brass Bushings for Clamps

1-1/2 to 12 257094

# Fuses





# At IPEX you get more than products. You get our knowledge.

You get more than just purity with Enpure<sup>TM</sup>. You get peace of mind. Enpure is one of the most complete and dependable pure-water thermoplastic piping systems available today. From the manufacturing of cosmetics to solutions for medical use, from pure-water lab applications to dialysis machines, Enpure is designed to meet all challenges. Manufactured with FDA approved materials, Enpure natural polypropylene pipe, valves and fittings eliminate the potential of contamination to your

pure process.

And, unlike conventional systems, Enpure is designed as a socket fusion system. No hazardous chemicals are used for joining. Connections are as "clean" as any other components in the system.

For more than 20 years IPEX has provided laboratories throughout North America with complete acid waste systems designed to take a variety of chemicals. Pour it, flush it or dump it – from school labs to industrial labs, Labline<sup>TM</sup> polypro, and Plenumline<sup>TM</sup>

Labline™ polypro, and Plenumline™ FR-PVDF acid waste systems are built to handle it.

Since their introduction, Labline and Plenumline mechanical joints have revolutionized the industry – and they continue to be regarded as state-of-the-art. Labline and Plenumline also feature a new no-heat Elastolive for quicker installation and higher performance.

Backed by IPEX's 50 years of experience, Enpure, Labline and Plenumline are built to our strict quality, performance and dimensional standards.

# LABLINE MECHANICAL JOINT ACID WASTE SYSTEMS

# **LABLINE®**

Labline (Mechanical Joint) has displaced the more expensive and difficult to install glass and metal systems. Gone is the need for fusing, caulking or welding of joints. Joining of the Labline System is complete in just 30 seconds and once the nut is locked into place, the end-user is assured of many years of trouble-free service. Yet, because it is a mechanical joint, the system can be easily dismantled and re-used, making it ideal for modular designs and for systems that may require re-modeling in the future.

# **STANDARDS**









NSF-approved IAPMO-listed & CSA-certified Meets ASTM F1412, D4101 and CSA B181.3

# **ADVANTAGES**

- 1 30 second jointing save on installation time
- 2 Proven reliability for over 30 years
- **Labline is manufactured from polypropylene** which has an operating temperature range from -10°F (-23°C) to 212°F (100°C).\* This allows systems to be flushed with boiling water
- All plastic construction no galvanic action, electrolysis or corrosion in the joint
- 5 Simple, inexpensive, non-temperamental tools
- 6 Easy to install, even in difficult areas
- Mastered by plumbers in minutes. No pre-heating required to install olive
- 8 System changes during installation can be done without spoiling fittings
- 9 Can be disassembled and re-used
- 10 Ideal for modular systems
- (1) Ideal for remodeling
- Matched system high quality pipe and fittings are matched to give ease of installation and long term reliability





Both Labline® and Plenumline™ contain no-heat Elastolives™ for quick installation and high performance.

# SHORT FORM SPECIFICATIONS

## **GENERAL**

Acid waste drain and vent system, as shown on drawings, shall be NSF listed, Schedule 40, polypropylene as manufactured by IPEX to include pipe supplied in 10 ft. lengths (or 20 ft lengths if NFRPP is specified), and matched fittings, traps and neutralization tanks from the same manufacturer. It shall also include recommended adapters to connect to other piping materials, where applicable.

### MATERIAL

Pipe shall be made from NSF listed Type 1, flame retardant polypropylene conforming to ASTM D4101, with a maximum average flame spread of zero seconds and a maximum extent of burning of 13 mm, in accordance with ASTM D635. Matched fittings shall be made from NSF listed flame retardant polypropylene with average maximum burn time of 80 seconds and maximum extent of burning of 20 mm in accordance with ASTM D635.

If NFRPP pipe is specified, it shall be made from NSF 14 listed and CSA certified Schedule 40 PP as manufactured by IPEX. Pipe shall comply with ASTM F1412 and material used shall comply with the material requirements of ASTM D4101.

## **FITTINGS**

Fittings shall be NSF listed, be of all plastic construction and be designed to lock into a machined groove on the mating piping. All fittings shall have integrally molded union connections. No metallic grab rings or clamps shall be allowed. Fittings containing EVA (ethylene vinyl acetate) are strictly prohibited. Couplings shall not be added to make mechanical joint fittings. Fittings shall be Labline or approved equivalent.

## **JOINTS**

Connections between polypropylene pipe and matched fittings shall be made using the Labline Joint.

## INSTALLATION AND TESTING

Installation and testing shall be in accordance with the contract drawings, the manufacturer's recommendations and the local plumbing codes. Testing with compressed air is prohibited. The entire system shall be installed free of stress and in proper alignment. Horizontal supports shall provide a wide bearing area and be free of burrs or sharp edges. Support spacings shall be in accordance with the manufacturer's recommendations and local plumbing codes. Vertical piping shall have riser clamps at each floor. Pipe supports shall be installed so that horizontal piping is in uniform alignment and with a uniform slope of at least 1/8" per foot, or in accordance with the local plumbing codes.



Dillielision	Product	
inches	Code	

# Coupling



1-1/2	156161
2	156162
3	156163
4	156164

# **Reducing Sanitary Tee**



2 x 1-1/2	156204
3 x 1-1/2	156207
3 x 2	156208
4 x 1-1/2	156211
4 x 2	156212
4 x 3	156213

Product Code

Dimension

# 1/8 Bend (45°)



1-1/2	156191
2	156192
3	156193
4	156194

# **Cleanout Tee**



1-1/2	156202
2	156205
3	156209
4	156214

# Loose Nut 1/8 Bend (45°) MJ x Loose Nut



1-1/2	156216
2	156217
3	156218
4	156219

# 45° Wye



1-1/2	156361
2	156363
3	156367
4	156373

# 1/4 Bend (90°)



1-1/2	156181
2	156182
3	156183
4	156184

# Reducing 45° Wye



2 x 1-1/2	156364
3 x 1-1/2	156368
3 x 2	156369
4 x 1-1/2	156374
4 x 2	156375
4 x 3	156376

# Loose Nut 1/4 Bend MJ x Loose Nut



1-1/2	156291
2	156292
3	156293
4	156294

# Combination Wye & 1/8 Bend



1-1/2	156362
2	156365
3	156370
4	156377

# **Sanitary Tee**



1-1/2	156201
2	156203
3	156206
4	156210

Dimension	Product
inches	Code

# Reducing Combination Wye & 1/8 Bend



2 x 1-1/2	156366
3 x 1-1/2	156371
3 x 2	156372
4 x 1-1/2	156380
4 x 2	156378
4 x 3	156379

Dimension	Product
inches	Code

# Reducing Coupling Loose Nut x MJ



2 x 1-1/2	156397
3 x 1-1/2	156398*
3 x 2	156400*
4 x 1-1/2	156399*
4 x 2	156401*
4 x 3	156402

<sup>\*</sup> Loose nut not furnished

# Double Wye



1-1/2	156381
2	156383
3	156387
4	156392

# Threaded Adapter Male Thread x Female Thread



1-1/2 x 1-1/4	156121
1-1/2 x 1-1/2	156131

# **Reducing Double Wye**



2 x 1-1/2	156384
3 x 1-1/2	156388
3 x 2	156389
4 x 1-1/2	156405
4 x 2	156393
4 x 3	156394

# Male Adapter MJ x Male Thread



1-1/2	156141
2	156142
3	156143
4	156144

# Double Wye & 1/8 Bend



156382
156385
156390
156395

# Female Adapter MJ x Female Thread



• •	no x i omalo imicaa	
	1-1/2	156151
	2	156152

# Reducing Double Wye & 1/8 Bend



2 x 1-1/2	156386
3 x 1-1/2	156406
3 x 2	156391
4 x 1-1/2	156407
4 x 2	156396
4 x 3	156408

# Glass Adapter MJ x Bead



1-1/2	156451
2	156452
3	156453
4	156454

# **Duriron Adapter** MJ x Spigot



1-1/2	156461
2	156462
3	156463
4	156464
4	156464

	Dillicipion	Product	
	inches	Code	
Olasmant Dina			

# **Cleanout Plug**



1-1/2	156241
2	156242
3	156243
4	156244

# Vent Loop U Bend



1-1/2	156101
2	156102

# Universal Trap Female Thread x M.

Dimension inches



emale Thread x MJ	
1-1/2	156501
1-1/2	156511
Transparent Base	
-	156512
PP Base Only	
-	156513
Clear Base Only	
-	156514
O-ring Gasket Only	
-	156516
Top Assembly For W501	& W511

Product Code

# P Trap - 2 Piece



1-1/2	156103
2	156104

# Universal Trap, S-Type Female Thread x MJ



1-1/2	156502
*1-1/2	156515
* Transparent Base	

# P Trap - 3 piece Long Radius



1-1/2	156711
2	156712
3	156713
4	156714

# Sink Outlet w/ Plug



- 5		
	1-1/2 - 3-3/8	156303
	1-1/2 - 3-3/8	156304
	1-1/2 - 2-7/8	156311
	1-1/2 - 2-7/8	156312
	-	156302

# S Trap - 3 Piece



	1-1/2	156105
	2	156106
í⊒ı		

# Sink Outlet Plug

-	156301
-	156305

# Running Trap - 3 Piece



1-1/2	156107
2	156108

# Sink Overflow

••		
	1-1/2	156321
	1-1/2	156322

All Labline fittings are furnished assembled with Olives and Union Nuts. IPEX components are dimensionally matched; do not install system of mixed brands without our expressed written consent.

Dimension	Product
inches	Code

156403

156404

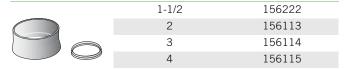
156409

# Dimension Product inches Code

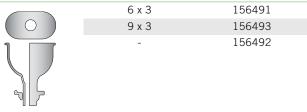
# Cup Sink Round



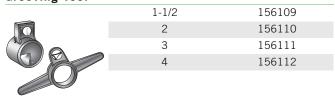
# No Heat Elastolive Yellow



# Cup Sink Oval



# **Grooving Tool**



# **Dilution Trap**



1-1/2	156601
*1-1/2	156611

# \* Transparent Base

# **Spanner**



1-1/2	156264
2	156266
3	156268
4	156270

# Pipe Clip



1-1/2	156251
2	156252

# **Grooving Tool & Spanner Combination Set**



1-1/2	156263
2	156265
3	156267
4	156269

# **Union Nut**



1-1/2	156231
2	156232
3	156233
4	156234

# **ADVANTAGES**

- 1 Rated for pedestrian traffic and available in sizes from 2" to 6".
- Ploway™ drains can be optionally configured with adjustable strainers, round funnels, sediment baskets and plain end or threaded outlets.
- Adjustable feature allows easy leveling after pouring of finished floors



# PRODUCT SELECTION CHART

Dimension	Product
Inches	Code

# F1000 Series Adjustable Floor Drain



Enfield 2	237001
Labline 2	237075
3	237011
4	237021
6	237031

# F1000 Series Adjustable Floor Drain



•		
	Enfield 2	237003
	Labline 2	237077
	3	237013
	4	237023
	6	237034

w/ Sediment Basket and 6" Round Funnel

# F1000 Series Adjustable Floor Drain



237002
237076
237012
237022
237033

w/ Sediment Basket

# F1000 Series Adjustable Floor Drain



Enfield 2	237004
Labline 2	237078
3	237014
4	237024
6	237032

w/ 6" Round Funnel Only

# PRODUCT SELECTION CHART

Dimension	Product
Inches	Code

# F4000 Series Non-Adjustable Floor Drain



Enfield 2	237041
Labline 2	237079
3	237051
4	237061
6	237071

# Gas Tight Plug



3	237815
4	237816
6	237817

Dimension Inches

Product Code

# **Allenhead Vandalproof Screws**

Set of 3 screws	237045

# F4000 Series Non-Adjustable Floor Drain



Enfield 2	237042
Labline 2	237080
3	237052
4	237062
6	237072

w/ Sediment Basket

# Blank Cover for F Series Drains

F1000 Series	237814
F4000 Series	237813

# F4000 Series Non-Adjustable Floor Drain



Enfield 2	237044
Labline 2	237081
3	237053
4	237063
6	237073

w/ Sediment Basket & 6" Round Funnel

# **Round Funnel**

6 237810

# Sediment Basket Strainer for F Series Drains

F1000	) Serie	es	23	37809	
F4000	) Serie	es	23	37808	

# F4000 Series Non-Adjustable Floor Drain



Enfield 2	237043
Labline 2	237082
3	237054
4	237064
6	237074

w/ 6" Round Funnel Only

# **Grid Strainers for F Series Drains**

F1000 Series	237807
F4000 Series	237806

257091 257092

# Floor Cleanout with Brass Cover (adjustable Cleanout) Sp



2	237173
3	237174
4	237175
6	237177

# Male Iron Pipe Threaded Outlet



# **FPT Tap for Priming Drain Assembly**

3,	/8	237430
1,	/2	237429

# PLENUMLINE MECHANICAL JOINT ACID WASTE SYSTEM

# **PLENUMLINE**

Plenumline mechanical joint acid waste systems easily displace costly and difficult-to-install glass and metal systems. With Plenumline, time-consuming methods associated with conventional heavy and brittle systems are replaced by a time proven mechanical joint that takes only 30 seconds to complete. Once the Plenumline nut is locked in place, the end-user is assured of many years of trouble-free service. In addition, mechanical joint systems can easily be dismantled and re-used, making Plenumline ideal for modular designs and future expansions.

# **STANDARDS**







(PVDF) Corrosive Waste Drainage Systems.

IAPMO-listed Meets ASTM F1673 Standard specification for Polyvinylidene Fluoride

# **ADVANTAGES**

- 1 Ideally suited to plenum applications
- 2 30-second joints shorten installation time
- Manufactured from Flame Retardant PVDF, which has an operating temperature range from -40°F (-40°C) to 285°F (140°C). With this high upper limit, Plenumline systems can be flushed with boiling water.
- All-plastic construction eliminates galvanic action, electrolysis and corrosion in the joint.
- **Easy to install**, even in tight areas, by using simple, inexpensive tools. Mechanical joints are mastered by plumbers in minutes; no pre-heating is required to install the new blue elastolive.
- Modularized design means Plenumline components can be disassembled and re-used. In addition, system modifications during installation can be performed without damaging fittings.
- **High-quality pipe and fittings** are matched to simplify installation and extend long-term reliability.
- 8 Flame Retardant PVDF material exhibits a flame spread index of 5 and smoke development index of 35 as tested in accordance with ASTM E84 and UL 723, and also meets 25/50 Flame/Smoke limits of ULC \$102.2.



# DID YOU KNOW?

IPEX Plenumline is a robust acid waste system, made from flame-retardant PVDF thermoplastic, designed for challenging conditions, including highly restrictive return air plenum applications and high-temperature corrosive chemical waste situations.



# SHORT FORM SPECIFICATIONS

## **GENERAL**

Acid waste drain and vent system, as shown on drawings, shall be IAPMO listed, Schedule 40, FR-PVDF as manufactured by IPEX to include pipe supplied in 10 ft. lengths and matched fittings, traps and neutralization tanks from the same manufacturer. It shall also include recommended adapters to connect to other piping materials, where applicable.

## **MATERIAL**

Pipe and fittings shall be made from Kynar 740-02, flame retardant PVDF conforming to ASTM F 1673, with a limiting oxygen index (LOI) of 60, Resin must have a vertical burn rating of 94 V-0. Kynar 740-02 resin based on testing to ASTM E84 (UL 723) must have surface burning characteristics greater than or equal to a flame spread 5 and smoke development 35.

### **FITTINGS**

Fittings shall be third party certified to ASTM F 1673 and ASTM E84, and IAPMO approved, be of all plastic construction and a tapered elastic retaining ring shall be designed to lock into a machined groove on the mating piping. All fittings shall have integrally molded union connections. No metallic grab rings or clamps shall be allowed. Fittings shall be Plenumline™ or approved equal.

# **INSTALLATION AND TESTING**

Installation and testing shall be in accordance with the contract drawings, the manufacturer's recommendations and the local plumbing codes. Testing with compressed air including air booster over water is prohibited. The entire system shall be installed free of stress and in proper alignment. Horizontal supports shall provide a wide bearing area and be free of burrs or sharp edges. Support spacings shall be in accordance with the manufacturer's recommendations and local plumbing codes. Vertical piping shall have riser clamps at each floor. Pipe supports shall be installed so that horizontal piping is in uniform alignment and with a uniform slope of at least 1/8" per foot, or in accordance with the local plumbing code requirements.

	Dimension	Dunderst	
	Inches	Product Code	
	monos		
Pipe			
	1-1/2	147045	
	2	147046	
	3	147047	
	4	147048	
Coupling			
ooupring	1-1/2	157006	
	2	157007	
	3	157008	
	4	157009	
1/8 Bend			
1/O DEIIU	1-1/2	157014	
	2	157015	
	3	157016	
	4	157017	
Loose Nut 1/8 Bend			
	1-1/2	157024	
	2	157025	
	3	157026	
	4	157027	
1/4 Bend			
- Della	1-1/2	157010	
	2	157011	
	3	157012	
	4	157013	
Loose Nut 1/4 Bend Loose Nut x MJ			
_	1-1/2	157032	
	2	157033	
	3	157034	
	4	157035	

1-1/2

2

	Dimension	Product	
	Inches	Code	
Oleanaut Tee			
Cleanout Tee	1-1/2	157061	
	2	157062	
	3	157062	
	4	157063	
	4	15/064	
45° Wye			
	1-1/2	157036	
	2	157037	
	3	157038	
	4	157039	
Reducing 45° Wye			
	2 x 1-1/2	157069	
	3 x 1/12	157073	
	3 x 2	157070	
	4 x 2	157071	
	4 x 3	157072	
Combination Wye & 1/8 Bend			
	1-1/2	157074	
	2	157075	
	3	157076	
	4	157077	
( <u>e                                    </u>			
Reducing combination Wye & 1/8 Bend			
	2 x 1 1/2	157070	

2 x 1-1/2	157078
3 x 1/12	157079
3 x 2	157080
4 x 2	157081
4 x 3	157082

# Double 45° Wye (Fabricated)

|--|

1-1/2	157049
2	157050
3	157051
4	157052

# **Reducing Double Wye**



2 x 1-1/2	157096
3 x 1/12	157104
3 x 2	157097
4 x 1-1/2	157091
4 x 2	157098
4 x 3	157099

# **Reducing Sanitary Tee**



**Sanitary Tee** 

2 x 1-1/2	157022
3 x 1/12	157065
3 x 2	157023
4 x 2	157067
4 x 3	157068

157018 157019

157020 157021

Inches Code
-------------

# Dimension Product Inches Code

# Double Wye & 1/8 Bend



1-1/2	157100
2	157101
3	157102
4	157103

# Male Adapter MJ x Male Thread



1-1/2	157002
1-1/2	137002
2	157003

# Female Adapter MJ x Female Thread



1-1/2	157004
2	157005

# **Cleanout Plug**



1-1/2	157028
2	157029
3	157030
4	157031

# U Bend for P-Trap



1-1/2	157000
2	157001

# P-Trap 2 piece



1-1/2	157083
2	157084

# P-Trap Long Radius 3 piece



1-1/2	15/085
2	157086
3	157087
4	157088

# **Running Trap**



1-1/2	157089
2	157090

# **Fabricated Cap**



1-1/2	157053
2	157054
3	157055
4	157056

# Loose Nut - Reducing Coupling Loose Nut x MJ



2 x 1-1/2	157040
3 x 1/12	157041
3 x 2	157042
4 x 2	157043
4 x 3	157044

Note: Loose Nut and Olive not furnished.

# Flange (Fabricated)



1-1/2	157057
2	157058
*3	157059
4	157060

\*While quantities last, Obsolete when stock depleted

# Tail Piece Adapter Sp x Brass Compression Ring



- P	٦ ٢		00p.000.0	
		1-1/2 x 1	.2	157105

# No Heat Elastolive Blue



1-1/2	157066
2	157106
3	157107
4	157108

Note: Blue olive nut is not interchangeable with the FRPP Yellow olive nut.

# **Union Nut**



1-1/2	157109
2	157110
3	157111
4	157112

# **Grooving Tool & Spanner Combination Set**



1-1/2	156263
2	156265
3	156267
4	156269

# Spanner



1-1/2	156264
2	156266
3	156268
4	156270

# **Grooving Tool**



1-1/2	156109
2	156110
3	156111
4	156270

All fittings are furnished assembled with Olives and Union Nuts. IPEX components are dimensionally matched; do not install system of mixed brands without our expressed written consent

# HDPE & POLYPROPYLENE NEUTRALIZATION TANKS

# **NEUTRATANK®**

IPEX offers a complete range of Neutratank® neutralization tanks as well as dilution, sampling and pH tanks for managing concentrations and pH levels in acid waste systems.

Neutratanks are made of high-density polyethylene or polypropylene material with a one-piece rotationally molded, seamless construction, a bolt-down flanged top and combination EZ Access cover. Neutratanks are available in sizes from 5 gallons to 2,000 gallons to suit most potential design conditions.

# DID YOU KNOW?

Neutratank®s are used for limestone neutralization of chemical waste prior to discharge into the sewer.

# **ADVANTAGES**

- 1 Cylindrical and rectangular limestone neutralization tanks from 5 to 2000 gallons are available.
- 2 A variety of lids, inlets, outlets and accessories are offered.
- 3 Dilution tanks are available in 1, 2 and 5-gallon sizes.

# SHORT FORM SPECIFICATIONS

Contractor shall furnish and install HDPE (Polypropylene) Neutralization Tank. Tank shall be rotationally molded, seamless construction with flanged top and welded or bolt down cover, as supplied by IPEX. Tank shall be Neutratank No. CT0100, having 100-gallon capacity complete with 3" inlet and outlet, and 11/2" vent connection. Tank to be 32" diameter x 42" high. Tank shall be installed in accordance with manufacturer's recommendations.

Contractor shall furnish and fill the tank prior to installation with limestone chips, as supplied by IPEX, to a level just below the tank outlet. Water should be added to the tank prior to placement of the limestone chips.



237526

# PRODUCT SELECTION CHART

Gallons	Inlet/Outlet Inches	Product Code	Gallons	Inlet/Outlet Inches	Pr C
in End			HDPE HD Bolted Flat Plain Er	nd	
5	1-1/2	237111	5	1-1/2	23
5	2	237112	5	2	23
15	2	237122	15	2	23
15	3	237123	15	3	23
30	2	237132	30	2	23
30	3	237133	30	3	23
30	4	237134	30	4	23
55	3	237143	55	3	23
55	4	237144	55	4	23
100	3	237152	100	3	23
100	4	237153	100	4	23
150	3	237241	150	3	2:
150	4	237242	150	4	23
200	3	237242	200	3	2:
200	4	237271	200	4	2:
275	3	237272	275	3	2
275	4	237128	275	4	2
			360	3	2
^Obsolete wne	n stock is deplete	3	360		2
			360	4	
dard Domed Pla	in End		500	6 3	2
5	1-1/2	237211	500		
5	2	237212	500	4 6	2
15	2	237222	500	б	2
15	3	237223			
30	2	237232	HDPE Steel Pedestrian Plain	End	
30	3	237233	5	1-1/2	2
30	4	237234	5	2	2
55	3	237243	15	2	2
55	4	237244	15	3	2
100	3	237252	30	2	2
100	4	237253	30	3	2
150	3	237281	30	4	2
150	4	237282	55	3	2
200	3	237411	55	4	2
200	4	237412	100	3	2
275	3	237130	100	4	2
275	4	237124	150	3	2
360	3	237125	150	4	2
360	4	237126	200	3	2
360	6	237497	200	4	2
500	3	237497	275	3	2
500	4	237135	275	4	2
500	6	237136	360	3	2
500	U	237430	360	4	2:
			360	6	2
			500	3	2
			500	4	2

500

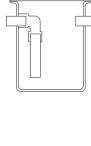
Polypro Standard Domed Plain End

Gallons

Inlet/Outlet

1-1/2

Product Code



Polypro HD B

	500	4	237107
	500	6	237108
olte	<b>d Flat</b> Plain E	nd	
	7	1-1/2	237206
7	7	2	237207
	15	2	237208
	15	3	237209
	30	2	237210
	30	3	237213
J	30	4	237214
	55	3	237215
	55	4	237216
	100	3	237218
	100	4	237220
	150	3	237224
	150	4	237225
	200	3	237226
	200	4	237228
	275	3	237230
	275	4	237235
	360	3	237236
	360	4	237238
	360	6	237239
	500	3	237240
	500	4	237245
	500	6	237246

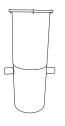
	Gallons	Inlet/Outlet Inches	Product Code
Polypro Steel F	<b>Pedestrian</b> Plai	n End	
	7	1 1/2	237524
	7	2	237525
	15	2	237526
	15	3	237527
	30	2	237528
	30	3	237529
	30	4	237530
	55	3	237531
	55	4	237532
	100	3	237533
	100	4	237534
	150	3	237535
	150	4	237536
	200	3	237537
	200	4	237538
	275	3	237539
	275	4	237540
	360	3	237541
	360	4	237542
	360	6	237543
	500	3	237544
	500	4	237545

Inlet / Outlet	Tank Size

Inlet / Outlet Tank Sizes & Connection Options			
1-1/2" Plain End, MPT, FPT, Flanged	5 gal to 55 gal		
2" Plain End, MPT, FPT, Flanged	5 gal to 150 gal		
3" Plain End, MPT, FPT, Flanged	15 gal to 500 gal		
3" Flanged	30 gal to 500 gal		
4" Plain End, MPT, FPT, Flanged	30 gal to 2000 gal		
6" Flanged	360 gal to 2000 gal		

Gallons	Ext Length	Product
Ganons	Inches	Code

# **HDPE Non-Adjustable Extension**



•	40.0			
		5	6 to 9	237462
		15	6 to 14	237463
		30	6 to 24	237464
		55	6 to 31	237465
		100	6 to 35	237466
		150	6 to 43	237467
		200	6 to 43	237468
		275	6 to 42	237469
		360	6 to 42	237470
		500	6 to 54	237471

Polypro Non-Adjustable extensions are available upon request.

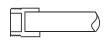
Inlet/Outlet	Product
Inches	Code

# **HDPE Plain End Vent**



1-1/2	237401
2	237402
3	237403
4	237404

# **HDPE MPT Connection**



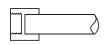
1-1/2	237421
2	237422
3	237423
4	237424

# Variable Extension (2"of Vertical Adjustment)



5/7	6 to 36	237454
15	6 to 36	237455
30	6 to 36	237456
55	6 to 36	237457
100	6 to 36	237458
150	6 to 36	237459
200	6 to 36	237460
275	6 to 36	237461
360	6 to 36	-
500	6 to 36	-

# **HDPE FPT Connection**



# **HDPE Flange Connection**



1-1/2	23/121
2	237131
3	237141
4	237142
6	237500

# FRP Overwrap



5/7	-	237440
15	-	237441
30	-	237442
55	-	237443
100	-	237444
150	-	237445
200	-	237446
275	-	237447
360	-	237448
500	-	237449

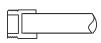
FRP Overwrap is for tanks without extensions Please contact IPEX for FRP overwrap pricing on tanks with non-adjustable extensions .

# **PolyPro Plain End Vent**



	1-1/2	237109
$\supset$	2	237110
	3	237113
	4	237114

# **PolyPro MPT Connection**

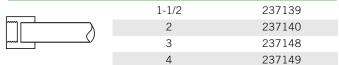


1-1/2	237156
2	237157
3	237158
4	237159

86

Inlet/Outlet	Product
Inches	Code

# **PolyPro FPT Connection**



	ct
Inches Code	

# **Threaded Manway**



8	237450
16	237451
22	237452

# **PolyPro Flange Connection**



1-1/2	237116
2	237118
3	237120
4	237138

# **Neutralizing Agent** Limestone Bags

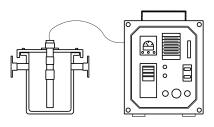
50 lbs TC50 237321

NOTE: F.O.B.- Shipping Location

Diameter Inches	Product Code

# Neutrasystem pH Monitoring & Recording System

pH Monitor w/ Tank & Alarm	237371
pH Monitor w/ Tank & Alarm & Chart	237331
pH Monitor w/ Alarm	237341
pH Monitor w/ Alarm & Chart	237351



Tank Size	Loading (lbs.)

# **Limestone Loading Guide for Neutralization**

5	50
15	125
30	250
55	500
100	1000
150	1500
200	2000
275	2500
360	3500
500	5250
700	8000
1000	10000
1250	12000
2000	18000

IPEX offers two compressed air systems designed to meet the requirements of a wide range of applications.

When you specify a high-performance piping systems from IPEX, you get the added benefits of a complete piping solution that is engineered for total integration, and backed by comprehensive, coast-to-coast support – all from one reliable source.

# Compressed Air Systems







Duratec Airline



# **DURATEC AIRLINE SYSTEMS**

# Duratec

Duratec is an innovative compressed air and inert gas distribution system designed to be absolutely leak-proof, installed quickly and easily, and maintained cost-effectively. As a result, Duratec saves you time and money.

Traditional metallic compressed air systems are a main cause of unnecessary energy use, excessive wear and tear on compressors and high consumption of compressor oils and filters. The culprits? Corrosion and leakage at pipe joints and fitting connections which often go undetected until they're discovered during a detailed compressed air system audit.

Duratec pipe comes in long 100 foot or 300 foot coils, which significantly reduces the number of joints in your system. Duratec fittings feature unique double o-ring seals to ensure long-term joint integrity. And the entire Duratec system can be easily and quickly installed, modified or expanded without the need for specialized equipment.



To make designing, sizing and installing a Duratec compressed air system easy, IPEX offers comprehensive reference tools, such as our Duratec Technical Manual. To download this manual visit our website at www.ipexinc.com.

# **APPLICATIONS**

- Plant air
- Inert gas distribution
- Manufacturing hand tool operation
- Manual and automated welding operations
- Semi-conductor tool hook up
- Valve actuation control systems
- Microbulk inert gas delivery systems
- Robotic installations

# STANDARDS





CSA B51, B137.9 **ASTM F1974** ASME B31.3, B31.9 **FDA Compliant** 

NSI / ASTM F1282

National CRN 0A02020.2C (Some fittings do not have CRN registration. Contact IPEX Inc. for details.)

Certified to OSHA Safety Regulations

# QUICK INSTALLATION

Cutting and joining Duratec is fast and simple.

- 1. Cut pipe square using plastic pipe cutter.
- 2. Slide nut and split ring over pipe and bevel the inside of the pipe by inserting then rotating the beveling tool.
- 3. Push the fitting into the pipe.
- 4. Turn the nut finger tight plus one full turn with a wrench.













# **ADVANTAGES**

1 Low Installation Costs

Duratec reduces costs on a typical installation not only for materials but also for labour and transportation costs when compared to traditional materials. How? Duratec's lightweight construction and simple assembly procedures.

Ease of Handling

Duratec is 75% lighter than the equivalent diameter of copper and SCH 40 carbon steel.

Quick Removable Connections

Threading is not required. All joints have double o-ring seals and can be quickly assembled or disassembled. Easy on-site modifications and repairs can be made.

4 Quick Installation

No special training or equipment is required to complete a Duratec system.

Clean

All Duratec pipe is packaged in cardboard boxes preventing contamination before use. The smooth PE-RT inner layer cannot rust, corrode or form loose scale. Clean air remains clean throughout the life of the system.

6 Flexible Yet Rigid

Due to its composite structure, Duratec pipe can be easily bent by hand and will maintain its desired shape. This unique feature allows for straight, professional looking installation and eliminates sagging.

7 Lower Operating Costs

Due to Duratec's advantages over metal systems, it costs you less time, labour and money to keep a Duratec system in optimal condition.

**8** Pressure loss means money loss

Metal systems can lose pressure due to pin-hole leaks and leakage at connections, all of which result in increased energy costs. Duratec's high-quality construction, on the other hand, guarantees consistent pressure for years to come.

9 Smooth Interior

Less friction means lower pressure drops and higher flow rates. This may allow for smaller pipe sizes to be used.

(10) Extended Life

Duratec is designed not to rust, scale or pit. Once properly selected for the application and correctly installed, Duratec Airline Systems will provide years of maintenance-free service.

(11) Corrosion Resistant

Duratec's tough outer PE-RT (Polyethylene of Raised Temperature) layer protects it against corrosion and deterioration and ensures long service life even in the most aggressive manufacturing environments. Its inner PE-RT layer is unaffected by inert gases and commonly-used compressor oils. Combined with its industrial nickel-plated Duratec fittings, the system provides long-term performance superior to metal piping systems.

12) Fewer Fittings

Duratec pipe comes in convenient 100 ft. and 300 ft. coils eliminating several joints and the need for threading, or soldering.

13) Safe

Duratec's unique composite construction means that accidental impact or puncture of the pipe results in a safe, ductile mode of failure. Duratec pipe has been third-party tested and certified to stringent OSHA safety requirements for compressed air systems, standards that guarantee safety comes first.

14 Performance

IPEX engineered Duratec pipe and fittings to provide top-notch performance. Rated for long term continuous operating pressures of 200psi at 73°F and 160psi at 140°F, Duratec pipe and fitting assemblies are also capable of sustaining quick burst pressures in excess of 800psi. This built-in safety factor ensures system performance and provides peace of mind for designers and facility managers.

# SHORT FORM SPECIFICATIONS

All compressed air and inert gas pipe in sizes 1" and smaller shall be PE-AL-PE composite pipe made with Raised Temperature Polyethylene and aluminum conforming to ASTM F1282 and CSA B137.9. PE-AL-PE pipe shall meet the health and safety requirements of OSHA.

All compressed air and inert gas fittings in sizes 1" and smaller shall be nickel plated brass or 316 stainless steel and shall conform to the dimensional and physical requirements of ASTM F1974 and CSA B137.9.

All pipe, fittings and accessories shall be Duratec Air-Line as manufactured by IPEX.

90

Discouries Designed On	
Dimension Product Co inches Code	il Length feet

# **HDPE-AL-HDPE** 200 psi @ 73°F, 160 psi @ 140°F, ASTM F1282



3/8	446024	100
3/8	446025	300
1/2	446026	100
1/2	446027	300
3/4	446030	100
3/4	446031	300
1	446032	100
1	446033	300

Dimension	Product
inches	Code

# **Duratec x Male Thread Adapter**



•		
3/8 D1 x 1/4	MPT	438081
3/8 D1 x 3/8	MPT	438000
3/8 D1 x 1/2	MPT	438001
1/2 D1 x 1/2	MPT	438002
3/4 D1 x 3/4	MPT	438003
1 D1 x 1 M	PT	438004

# **Duratec x Female Thread Adapter**



3/8 D1 x 1/2 FP1	438005
1/2 D1 x 1/2 FPT	438006
3/4 D1 x 3/4 FPT	438007
1 D1 x 1 FPT	438008

# Duratec x Duratec 90° Elbow



3/8 D1 x 3/8 D1	438079
1/2 D1 x 1/2 D1	438080
3/4 D1 x 3/4 D1	438067
1 D1 x 1 D1	438068

# Wall Bracket Multiport



3/4 x 1/2	437338
Inlet - 3/4 N	1PT
Outlet - 1/2	FPT

### Dimension **Product** inches Code

# Duratec x Male Thread Adapter Stainless Steel



•	
3/8 D1 x 3/8 MPT SS	438029
1/2 D1 x 1/2 MPT SS	438030
3/4 D1 x 3/4 MPT SS	438031
1 D1 x 1 MPT SS	438032

# **Duratec Airline x Tubing Adapter**



	_			
3/8	D1	x 1/4	MPT	438041
3/8	D1:	x 3/8	MPT	438042
1/2	D1	x 1/2	MPT	438043
3/4	D1	x 3/4	MPT	438044
1	D1	x 1 M	PT	438045

438009

# Duratec x Female Thread Wing Back (or Drop-Ear) 90° Elbow 1/2 D1 x 1/2 FPT

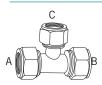


# **Duratec x Duratec x Duratec Tee**



3/8	438033
1/2	438010
3/4	438011
1	438012

# **Duratec x Duratec x Duratec Reducing Tee**



	0
1/2 x 1/2 x 3/8	438034
3/4 x 1/2 x 1/2	438013
3/4 x 3/4 x 1/2	438014
3/4 x 1/2 x 3/4	438015
1 x 1 x 1/2	438016
1 x 3/4 x 3/4	438017
1 x 1 x 3/4	438018
AxBxC	

	Dimension inches	Product Code
Duratec Coupling		



3/8	438020
1/2	438021
3/4	438022
1	438023

# Duratec x Cap



3/8	438036
1/2	438026
3/4	438027
1	438028

# 5-in-1 Bevelling Tool



3/8" to 1" Beveling Tool	438050
--------------------------	--------

# **Duratec x Duratec x Female Thread Tee**



1/2 D1 x 1/2 D1 x 1/2 FPT	438019
3/4 D1 x 3/4 D1 x 1/2 FPT	438078

# **Duratec Reducing Coupling**



1/2 x 3/8	438035
3/4 x 1/2	438024
1 x 3/4	438025

# **Duratec Airline Ball Valve**



3/8	438037
1/2	438038
3/4	438039
1	438040

# **Plastic Pipe Cutter**



3/Q" +o	1" Pipe Cutter	438051
3/6 10	I Tipe Cutter	430031

Dimension inches	Product Code	
---------------------	-----------------	--

# Plastic Pipe Cutter Replacement SS Blade

438052

# **Duratec Pipe Clip**



438063
438064
438065
438066

# Replacement Split Ring



3/8 Split Ring D1	438046
1/2 Split Ring D1	438047
3/4 Split Ring D1	438048
1 Split Ring D1	438049

# **Duratec Airline Replacement O-Ring**



3/8	438053
1/2	438054
3/4	438055
1	438056

# **Protective Heat Shrink Sleeve**



4" Heatshrink Sleeve for 3/4", 1" Fittings	438061
4" Heatshrink Sleeve for 1/2", 3/8" Fittings	438062

# Composite Pipe Bending Tool Kit up to 1"



1/2", 3/4", 1" Bending Tool Kit	438057

# **Composite Pipe Bending Spring**



1/2	438058
3/4	438059
1	438060



# Your Compressed Air System for the 21st Century

When your plant's compressed air system leaks, more than just air is getting out. You're losing money in the form of wasted energy, wear and tear on your compressors and increased operating and maintenance costs. Duratec® Airline, a unique time and moneysaving piping system, is designed to reduce leaks and costs.

A tough piping system that meets

ASME codes and OSHA safety
requirements, Duratec Airline requires less
time, labor and money to install and maintain than

traditional systems. Its long, lightweight coils cut down on the number of potential leak points in your system. Duratec fittings are quick and easy to install and feature double O-ring seals that

and feature double O-ring seals that ensure maximum joint integrity.

Duratec requires no special tools or installation training and eliminates the need for soldering and threading. And because Duratec is so quickly and easily installed, modified, and adapted to existing metal systems, it can reduce your plant's atime. So stop your compressed air system's

downtime. So stop your compressed air system's problems before they become big news — Install Duratec.

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.

# Thermoplastic Valves









Ball Valves

**Butterfly Valves** 

Diaphragm Valves

Check and Vent Valves

Specialty Valves

Quarter Turn Automation

96

101











# **THERMOPLASTIC VALVES**

# **Manual & Actuated Thermoplastic Valves**

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 both time and money.

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 most valve applications in thermplastic piping.

## **APPLICATIONS**

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



WHAT TYPE OF VALVE TO USE	Ball Valves	Butterfly Valves	Diaphragm Valves	Check & Vent Valves	Specialty Valves
On/Off Service	1	1			
High Capacity	1	1			
Throttling	√VKR only	1	✓		✓
Quick & Frequent Cycling	1				✓
Slurries/Dirty Fluids		1	✓		
Filtering					1
Back Flow Prevention				✓	
Air & Gas Release				✓	
Electro-Mechanical Control					1
Actuation	1	1	✓		





# VKD SERIES BALL VALVES - TRUE UNION

This 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 2-1/2" 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 FPM seals.

Pressure: up to 232 psi at  $73^{\circ}\text{F}$  depending on the material

Sizes: 3/8" - 4"



# VENTED VXD SERIES BALL VALVES - TRUE UNION

End Conn.	Size inches	PVC Product Code	Corzan CPVC Product Code
FPM w/ PT	FE Seats		
S/T	3/8	353028	353000
S/T	1/2	353083	353021
S/T	3/4	353084	353022
S/T	1	353085	353023
S/T	1-1/4	053503	353024
S/T	1-1/2	053504	353025
S/T	2	053505	353026
Socket	2-1/2	053506	353027
Socket	3	353086	353029
Socket	4	053562	353030

Note: VKD vented ball valves to be used for Sodium Hypochlorite service. Please consult IPEX for other vented applications.

Connection Connection	inches	Product Code	Product Code
VC w/ PTFE S	Seats		
S/T	3/8	253067	253068
S/T	1/2	053461	053467
S/T	3/4	053462	053468
S/T	1	053463	053469
S/T	1-1/4	053464	053470
S/T	1-1/2	053465	053471
S/T	2	053466	053472
Socket	2-1/2	053539	053542
Socket	3	053540	053543
Socket	4	053541	053544

Corzan®	CPVC	w/ PTFE	Seats
---------	------	---------	-------

S/T	1/2	053473	253008
S/T	3/4	053474	253009
S/T	1	053475	253010
S/T	1-1/4	053476	253011
S/T	1-1/2	053477	253012
S/T	2	053478	253013
Socket	2-1/2	053545	053548
Socket	3	053546	053549
Socket	4	053547	053550

# PP w/ PTFE Seats

Threaded	1/2	053525	253002
Threaded	3/4	053526	253003
Threaded	1	053527	253004
Threaded	1-1/4	053528	253005
Threaded	1-1/2	053529	253006
Threaded	2	053530	253007

# PP w/ PTFE Seats

Socket	20mm	053513	053519
Socket	25mm	053514	053520
Socket	32mm	053515	053521
Socket	40mm	053516	053522
Socket	50mm	053517	053523
Socket	63mm	053518	053524

# TKD SERIES 3-WAY BALL VALVES - TRUE UNION

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 FPM seals. Other materials are available upon request.



End Connection	Size inches	EPDM Product Code	FPM Product Code
PVC, w/ PTFE	Seats , L-F	Port	
S/T	1/2	253844	253856
S/T	3/4	253845	253857
S/T	1	253846	253858
S/T	1-1/4	253847	253859
S/T	1-1/2	253848	253860
S/T	2	253849	253861

PVC, w/ PTF	E Seats , T-P	ort	
S/T	1/2	253850	253862
S/T	3/4	253851	253863
S/T	1	253852	253864
S/T	1-1/4	253853	253865
S/T	1-1/2	253854	253866
S/T	2	253855	253867

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.

# VKR SERIES REGULATING BALL VALVES - TRUE UNION

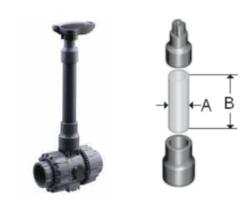
The new VKR Series Regulating Ball Valves combine the reliability and safety features of IPEX VKD ball valves with a newly designed profiled ball. The patented ball design provides linear flow regulation throughout its full range of operation even when the valve is open just a few degrees. The VKR is available in PVC with PTFE seats and either EPDM or FPM seals.





Connection	inches	Product Code	Product Code
PVC, w/ PTFE	Seats		
S/T	1/2	353684	353675
S/T	3/4	353683	353676
S/T	1	353682	353678
S/T	1-1/4	353681	353685
S/T	1-1/2	353680	353686
S/T	2	353679	353677











Size inches	Product Code
Locking Handle Kit - VKD & TKD	
3/8 & 1/2	253014
3/4 & 1	253015
1-1/4 & 1-1/2	253016
2	253017

Note: The locking attachment fits on the standard handle

Size	Dime	nsions	Product
inches	Α	B (min)	Code
Stem Extension	ı Kit - VKD 8	k TKD	
3/8 & 1/2	25mm	2"	154062
3/4	25mm	2"	154063
1	25mm	2"	154064
1-1/4	32mm	2"	154065
1-1/2	32mm	2"	154066
2	32mm	2"	154067

Note: The kit includes top and bottom PVC components, as well as a 6" length of extension pipe that must be solvent welded together to achieve the desired extension length. The minimum length to which the extension pipe can be cut is shown in the adjacent table. For longer extensions, contact IPEX Customer Service.

Size inches	Product Code	
Wall / Panel Mounting Kit -	· VKD only	
3/8 thru 1	154322	
1-1/4 thru 2	154323	
No. The latest to the second		

Note: The kit includes the mounting plate, 2 brass inserts and 2 screws  $\,$ 

Size

inches	Product Code	Product Code
ANSI 150 Flanging	Kit - VKD & TKD	
3/8 & 1/2	154324	154330
3/4	154325	154331
1	154326	154332
1-1/4	154327	154333
1-1/2	154328	154334
2	154329	154335

**PVC Kit** 

**CPVC Kit** 

 ${\bf PVC}$  Kit includes: 1 PVC Flange & Nut, 1 PVDF locking ring and 1 True union nut.

 $\ensuremath{\mathbf{CPVC}}$  Kit includes: 1 CPVC Flange & Nut, 1 PVDF locking ring and 1 True union nut.

This is a NON-STOCKING item. For OEM business, please contact Customer Service for pricing and stocking options.

# **VXE 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 VXE Series True Union Ball Valves represent the lastest innovation in thermoplastic ball valve manufacturing technology. The VXE Series is designed for industrial, general purpose and O.E.M applications. This valve features an ultracompact double block design, and full port bi-directional operation. The true union design 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 EasyFit multifunction handle doubles as a tool for ball seat adjustment, and for tightening union nuts precisely.

Pressure: up to 232 psi at 73°F depending on the size. Sizes 1/2" - 4"





## **EXAMPLE APPLICATIONS**

- ✓ Plant water supply and distribution
- ✓ Wash-water and recovery systems
- ✓ Acid Products Handling for Refineries, Metal Works, etc.
- ✓ Alum and Ferric Chloride Handling
- ✓ Pulp and Chemical Recovery Systems ✓ Irrigation
- ✓ Deionized Water

- ✓ Water treatment
- ✓ Swimming pools
- ✓ Chlorine Injection Systems Bleach, Dye and Acid Lines
- ✓ Aquariums

# **VENTED VXE SERIES BALL VALVES**

End Conn.	Size inches	PVC Product Code	Corzan CPVC Product Code
FPM w/ PT	FE Seats		
S/T	1/2	353031	353067
S/T	3/4	353032	353068
S/T	1	353033	353069
S/T	1-1/4	353034	353070
S/T	1-1/2	353035	353071
S/T	2	353036	353072
Socket	2-1/2	353037	353073
Socket	3	353038	353074
Socket	4	353039	353075
Threaded	3	353040	353076
Threaded	4	353061	353077

Note: VXE vented ball valves to be used for Sodium Hypochlorite service. Please consult IPEX for other vented applications.



End Conn.	Size inches	EPDM Product Code	FPM Product Code
PVC w/ PT	FE Seats		
S/T	1/2	053001	353002
S/T	3/4	053003	353004
S/T	1	053005	353006
S/T	1-1/4	053007	353008
S/T	1-1/2	053009	353101
S/T	2	053011	353012
Socket	2-1/2	053623	353624
Socket	3	053013	353014
Socket	4	053015	353016
Threaded	3	053017	353018
Threaded	4	053019	353020
Corzan® C	PVC w/ PTFI	E Seats	
S/T	1/2	053041	353042
S/T	3/4	053043	353044
S/T	1	053045	353046
S/T	1-1/4	053047	353048
S/T	1-1/2	053049	353050
S/T	2	053051	353052
Socket	2-1/2	053647	353648
Socket	3	053053	353054
Socket	4	053055	353056
Threaded	3	053057	353058
Threaded	4	053059	353060

# MP SERIES COMPACT BALL VALVES

Both Schedule 40 White PVC and Schedule 80 Grey PVC are available with either socket or threaded end 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: 1/2" - 2"



End Connection	Size inches	Sch 80 Grey Product Code	Sch 40 White Product Code
PVC, EPDM w	/ PTFE		
Socket	1/2	052000	052277
Socket	3/4	052006	052278
000.101	0/ 1	032000	032270
Socket	1	052007	052279

Socket

Threaded

### PVC, EPDM w/ PTFE Threaded 1/2 052026 052283 3/4 Threaded 052029 052284 Threaded 1 052107 052285 Threaded 1-1/4 052108 052286 Threaded 1-1/2 052109 052287

2

052024

052144

052282

052288

## 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 FPM), 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: 1-1/2"-12"

D53198 D53199	053200 053201
053199	053201
	000201
052145	052147
053105	053153
053106	053154
052146	052148
053107	053155
053108	053156
	053105 053106 052146 053107

	LEVER HANDLE
000	

	WITH MOU GEAR BOX	

Size inches	Product Code
Infinite Adjustable Handle	Kit
1-1/2 & 2	154173
2-1/2	153968
3 & 4	153969
5 & 6	153970
8	153971

Note: Available with stainless steel shaft.

Size inches	EPDM Product Code	FPM Product Code
PP Disc, Wafer S	tyle, Gear Box	
2-1/2	253145	253147
3	253105	253153
4	253106	253154
5	253146	253148
6	253107	253155
8	253108	253156
10	153014	153016
12	153015	153017

Note: Available with stainless steel shaft.

## 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: 2-1/2" - 12"

EPDM Product Code	FPM Product Code
053133	053139
053134	053140
053135	053141
053105	053142
053136	053143
053138	053144
	053133 053134 053135 053105 053136

Note: PVC, CPVC, ABS, and PVDF discs are available on request.

Note: Available with stainless steel shaft.



## PP Disc, SS Lugs, Gear Box

2-1/2	253133	253139
3	253134	253140
4	253135	253141
5	253136	253142
6	253137	253143
8	253138	253144
10	053328	053330
12	053329	053331

Note: PVC, CPVC, ABS, and PVDF discs are available upon request. 14"-24" butterfly valves are available on request. Note: Available with stainless steel shaft.



WITH MOUNTED GEAR BOX

## 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: 1-1/2" - 12"



Size	EPDM
inches	Product Code

## PVC Body & Disc, Wafer Style

1-1/2	053202
2	053203
2-1/2	053842
3	053081
4	053082
5	053843
6	053083
8	053084

NBR and Viton® lined valves are available upon request.

## PVC Body & Disc, Wafer Style, Gear Box

2-1/2	253842
3	253081
4	253082
5	253843
6	253083
8	253084
10	052264
12	052265

NBR and FPM lined valves are available upon request.

These highly versatile valves can be used for simple on/off service but also for processes requiring precise throttling. 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.

Note: 14" - 24" Butterfly Valves are available. Price and delivery on request

## VM SERIES DIAPHRAGM VALVES - MANUAL HAND WHEEL

The VM series weir-style diaphragm valves are available in PVC, CPVC, PP, or PVDF, four body styles, and three choices of diaphragms (EPDM, FPM, 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: 1/2" – 4"



Food	0:	EDDM	FPM	PTFF
Ena	Size	EPDM	FPIVI	PIFE
Connoction	inches	Product Code	Broduct Code	<b>Product Code</b>
Connection	IIICHES	Flounct Cone	Flounct Cone	Flounct Cone

## Corzan® CPVC Body

		-		
Spigot	1/2	054247	054256	054265
Spigot	3/4	054248	054257	054266
Spigot	1	054249	054258	054267
Spigot	1-1/4	054250	054259	054268
Spigot	1-1/2	054251	054260	054269
Spigot	2	054252	054261	054270
Spigot	2-1/2	054253	054262	054271
Spigot	3	054254	054263	054272
Spigot	4	054255	054264	054273

## Corzan® CPVC Body

T/U	1/2	054274	054280	054286
T/U	3/4	054275	054281	054287
T/U	1	054276	054282	054288
T/U	1-1/4	054277	054283	054289
T/U	1-1/2	054278	054284	054290
T/U	2	054279	054285	054291

## Corzan® CPVC Body

Flanged	1/2	054292	054301	054310
Flanged	3/4	054293	054302	054311
Flanged	1	054294	054303	054312
Flanged	1-1/4	054295	054304	054313
Flanged	1-1/2	054296	054305	054314
Flanged	2	054297	054306	054315
Flanged	2-1/2	054298	054307	054316
Flanged	3	054299	054308	054317
Flanged	4	054300	054309	054318

End Connection	Size inches	EPDM Product Code	FPM Product Code	PTFE Product Code
PVC Body				
Spigot	1/2	054175	054184	054193
Spigot	3/4	054176	054185	054194
Spigot	1	054177	054186	054195
Spigot	1-1/4	054178	054187	054196
Spigot	1-1/2	054179	054188	054197
Spigot	2	054180	054189	054198
Spigot	2-1/2	054181	054190	054199
Spigot	3	054182	054191	054200
Spigot	4	054183	054192	054201
VC Body				
T/U	1/2	054202	054214	054208
T/U	3/4	054203	054215	054209
T/U	1	054204	054216	054210
T/U	1-1/4	054205	054217	054211
T/U	1-1/2	054206	054218	054212
T/U	2	054207	054219	054213
VC Body				
Flanged	1/2	054220	054229	054238
Flanged	3/4	054221	054230	054239
Flanged	1	054222	054231	054240
Flanged	1-1/4	054223	054232	054241
Flanged	1-1/2	054224	054233	054242
Flanged	2	054225	054234	054243
Flanged	2-1/2	054226	054235	054244
Flanged	3	054227	054236	054245
Flanged	4	054228	054237	054246

End Connection	Size mm	EPDM Product Code	FPM Product Code	PTFE Product Code
PP Body				
Spigot	20mm	054319	054328	054337
Spigot	25mm	054320	054329	054338
Spigot	32mm	054321	054330	054339
Spigot	40mm	054322	054331	054340
Spigot	50mm	054323	054332	054341
Spigot	63mm	054324	054333	054342
Spigot	75mm	054325	054334	054343
Spigot	90mm	054326	054335	054344
Spigot	110mm	054327	054336	054345
PP Body				
T/U	20mm	054346	054352	054358
T/U	25mm	054347	054353	054359
T/U	32mm	054348	054354	054360
T/U	40mm	054349	054355	054361
T/U	50mm	054350	054356	054362
T/U	63mm	054351	054357	054363

Note: EPDM diaphragms have EPDM o-rings, FPM and PTFE diaphragms have FPM o-rings. For ABS and u-PP VM diaphragm valves, please refer to the Duraplus ABS Industrial and Enpure. Other options are available on request. VM Series Diaphragm valves are made-to-order.

## VM SERIES PNEUMATIC DIAPHRAGM VALVES - NORMALLY OPEN (AIR TO AIR) PNEUMATIC

Pressure: up to 150 psi at 73°F depending on the size

Size: 1/2" - 4"



End Connection	Size inches	EPDM Product Code	FPM Product Code	PTFE Product Cod
Corzan® C	PVC Bo	dy		
Spigot	1/2	054482	054491	054500
Spigot	3/4	054483	054492	054501
Spigot	1	054484	054493	054502
Spigot	1-1/4	054485	054494	054503
Spigot	1-1/2	054486	054495	054504
Spigot	2	054487	054496	054505
Spigot	2-1/2	054488	054497	054506
Spigot	3	054489	054498	054507
Spigot	4	054490	054499	054508
Corzan® C	PVC Bo	dy		
T/U	1/2	054509	054515	054521
T/U	3/4	054510	054516	054522
T/U	1	054511	054517	054523
T/U	1-1/4	054512	054518	054524
T/U	1-1/2	054513	054519	054525
T/U	2	054514	054520	054526
Corzan® C	PVC Bo	dy		
Flanged	1/2	054527	054536	054545
Flanged	3/4	054528	054537	054546
Flanged	1	054529	054538	054547
Flanged	1-1/4	054530	054539	054548
Flanged	1-1/2	054531	054540	054549
Flanged	2	054532	054541	054550
Flanged	2-1/2	054533	054542	054551
				054550
Flanged	3	054534	054543	054552

End Connection	Size inches	EPDM Product Code	FPM Product Code	PTFE Product Code
PVC Body				
Spigot	1/2	054410	054419	054428
Spigot	3/4	054411	054420	054429
Spigot	1	054412	054421	054430
Spigot	1-1/4	054413	054422	054431
Spigot	1-1/2	054414	054423	054432
Spigot	2	054415	054424	054433
Spigot	2-1/2	054416	054425	054434
Spigot	3	054417	054426	054435
Spigot	4	054418	054427	054436
PVC Body				
T/U	1/2	054437	054443	054449
T/U	3/4	054438	054444	054450
T/U	1	054439	054445	054451
T/U	1-1/4	054440	054446	054452
T/U	1-1/2	054441	054447	054453
T/U	2	054442	054448	054454
PVC Body				
Flanged	1/2	054455	054464	054473
Flanged	3/4	054456	054465	054474
Flanged	1	054457	054466	054475
Flanged	1-1/4	054458	054467	054476
Flanged	1-1/2	054459	054468	054477
Flanged	2	054460	054469	054478
Flanged	2-1/2	054461	054470	054479
Flanged	3	054462	054471	054480
Flanged	4	054463	054472	054481
End Connection	Size mm	EPDM Product Code	FPM Product Code	PTFE Product Code
PP Body				
Spigot	20mm	054554	054563	054572
Spigot	25mm	054555	054564	054573
Spigot	32mm	054556	054565	054574
Spigot	40mm	054557	054566	054575
Spigot	50mm	054558	054567	054576
Spigot	63mm	054559	054568	054577
Spigot	75mm	054560	054569	054578
Spigot	90mm	054561	054570	054579
Spigot	110mm	054562	054571	054580

Note: EPDM diaphragms have EPDM o-rings, FPM and PTFE diaphragms have FPM o-rings. For ABS and u-PP VM diaphragm valves, please refer to the Duraplus ABS Industrial and Enpure. Other options are available on request. VM Series Diaphragm valves are made-to-order.

 $\frac{\textbf{PP Body}}{\text{T/U}}$ 

T/U

T/U

T/U

T/U

T/U

20mm

25mm

32mm

40mm

50mm

63mm

054581

054582

054583

054584

054585

054586

054587

054588

054589

054590

054591

054592

054593

054594

054595

054596

054597

054598

Flanged

Flanged

Flanged

2-1/2

3

054767

054768

054769

## VM SERIES PNEUMATIC DIAPHRAGM VALVES - NORMALLY CLOSED PNEUMATIC

Pressure: up to 150 psi at 73°F depending on the size

Size: 1/2" - 4"



Size inches	EPDM Product Code	FPM Product Code	PTFE Product Code			
Corzan® CPVC Body						
1/2	054716	054725	054734			
3/4	054717	054726	054735			
1	054718	054727	054736			
1-1/4	054719	054728	054737			
1-1/2	054720	054729	054738			
2	054721	054730	054739			
2-1/2	054722	054731	054740			
3	054723	054732	054741			
4	054724	054733	054742			
PVC Bo	dy					
1/2	054743	054749	054755			
3/4	054744	054750	054756			
1	054745	054751	054757			
1-1/4	054746	054752	054758			
1-1/2	054747	054753	054759			
2	054748	054754	054760			
PVC Bo	dy					
1/2	054761	054770	054780			
3/4	054762	054771	054781			
3/4	001702					
1	054763	054772	054782			
		054772 054773	054782 054783			
1	054763					
	1/2 3/4 1 1-1/4 1-1/2 2 3/4 1 1 1-1/4 1 1/2 3/4 1 1 1-1/4 1 1-1/2 2 PVC Bo 1/2	PVC Body	Product Code         Product Code           PVC Body         054716         054725           3/4         054717         054726           1         054718         054727           1-1/4         054719         054728           1-1/2         054720         054729           2         054721         054730           2-1/2         054722         054731           3         054723         054732           4         054724         054733           PVC Body           1/2         054743         054749           3/4         054744         054750           1         054745         054751           1-1/4         054746         054752           1-1/2         054747         054753           2         054748         054754           PVC Body           1/2         054761         054770			

End Connection	Size inches	EPDM Product Code	FPM Product Code	PTFE Product Code
PVC Body				
Spigot	1/2	054644	054653	054662
Spigot	3/4	054645	054654	054663
Spigot	1	054646	054655	054664
Spigot	1-1/4	054647	054656	054665
Spigot	1-1/2	054648	054657	054666
Spigot	2	054649	054658	054667
Spigot	2-1/2	054650	054659	054668
Spigot	3	054651	054660	054669
Spigot	4	054652	054661	054670
PVC Body				
T/U	1/2	054671	054677	054683
T/U	3/4	054672	054678	054684
T/U	1	054673	054679	054685
T/U	1-1/4	054674	054680	054686
T/U	1-1/2	054675	054681	054687
T/U	2	054676	054682	054688
PVC Body				
Flanged	1/2	054689	054698	054707
Flanged	3/4	054690	054699	054708
Flanged	1	054691	054700	054709
Flanged	1-1/4	054692	054701	054710
Flanged	1-1/2	054693	054702	054711
Flanged	2	054694	054703	054712
Flanged	2-1/2	054695	054704	054713
Flanged	3	054696	054705	054714
Flanged	4	054697	054706	054715
End	Size	EPDM	FPM	PTFE
Connection	mm	Product Code	Product Code	Product Code
PP Body				
Spigot	20mm	054789	054798	054807
Spigot	25mm	054790	054799	054808
Spigot	32mm	054791	054800	054809
Spigot	40mm	054792	054801	054810
Spigot	50mm	054793	054802	054811
Spigot	63mm	054794	054803	054812
Spigot	75mm	054795	054804	054813
Spigot	90mm	054796	054805	054814
Spigot	110mm	054797	054806	054815
PP Body				
T/U	20mm	054816	054824	054830
T/U	25mm	054819	054825	054831
T/U	32mm	054820	054826	054832

Note: EPDM diaphragms have EPDM o-rings, Viton® and PTFE diaphragms have Viton® o-rings. Other options are available on request. VM Series Diaphragm valves are made-to-order.

054786

054787

054788

T/U

T/U

T/U

40mm

50mm

63mm

054821

054822

054823

054827

054828

054829

054833

054834

054835

054776

054778

054779

## DV SERIES DIAPHRAGM VALVES - MANUAL HANDWHEEL

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

Sizes: 1/2" - 6"



End Connection	Size inches	EPDM Product Code
PVC Body		
Flanged	1/2	052196
Flanged	3/4	052197
Flanged	1	052198
Flanged	1-1/2	052207
Flanged	2	052208
Flanged	3	052209
Flanged	4	052217
Flanged	6	052218

End Connection	Size inches	PTFE Product Code
PVC Body		
Flanged	1/2	052296
Flanged	3/4	052297
Flanged	1	052298
Flanged	1-1/2	052299
Flanged	2	052354
Flanged	3	052355
Flanged	4	052356
Flanged	6	052357

## 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, FPM, 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: 1/2" in PVC and CPVC, 16 mm – 20 mm in PP and PVDF



End	Size	EPDM	FPM	PTFE
Connection	inches	<b>Product Code</b>	Product Code	Product Code

## **PVC** Body

Spigot

T/U Socket 20mm

20mm

T/U S/T	3/8	253071	-	253072
T/U S/T	1/2	253073	-	253074
T/U Socket	1/2	054127	054129	054131

## Corzan® CPVC Body

T/U Socket 1/2 054128 054130 (	054132
--------------------------------	--------

End Connection	Size mm	EPDM Product Code	FPM Product Code	PTFE Product Code
PP Body				
Socket	16mm	054133	054136	054139
Spigot	20mm	054134	054137	054140
T/U Socket	20mm	054135	054138	054141
PVDF Body	1			
Socket	16mm	054142	054145	054148

054143

054144

054146

054147

054149

054150

## CM SERIES COMPACT DIAPHRAGM VALVES - NORMALLY CLOSED PNEUMATIC

Pressure: up to 90 psi at 73°F

Size: 1/2" in PVC and CPVC, 16 mm - 20 mm in PP and PVDF



End	Size	EPDM	FPM	PTFE
Connection	inches	Product Code	Product Code	Product Code
PVC Body				
T/U Socket	1/2	054151	054152	054153
Corzan® C	PVC Bo	dy		
T/U Socket	1/2	054154	054155	054156
End	Size	EPDM	FPM	PTFE
EIIU	SIZE	ELDIA	FFIVI	
Connection	mm	<b>Product Code</b>	<b>Product Code</b>	<b>Product Code</b>
Connection	mm	Product Code	Product Code	Product Code
Connection PP Body	mm	Product Code	Product Code	Product Code
	mm 16mm	Product Code 054157	Product Code 054160	Product Code 054163
PP Body				
PP Body Socket	16mm	054157	054160	054163
PP Body Socket Spigot	16mm 20mm	054157 054158	054160 054161	054163 054164
PP Body Socket Spigot	16mm 20mm 20mm	054157 054158	054160 054161	054163 054164
PP Body Socket Spigot T/U Socket	16mm 20mm 20mm	054157 054158	054160 054161	054163 054164
PP Body Socket Spigot T/U Socket	16mm 20mm 20mm	054157 054158 054159	054160 054161 054162	054163 054164 054165

Note: EPDM diaphragms have EPDM o-rings FPM and PTFE diaphragms have Viton® o-rings.

## DM SERIES DIAPHRAGM VALVES - DIRECT ACTING PNEUMATIC

Available in both PVC and CPVC, and with either an EPDM or Viton® diaphragm, its rugged construction allows the ultracompact 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: 1/2" - 2"



End Connection	Size inches	EPDM Product Code	FPM Product Code
PVC Body			
Spigot	1/2	054880	054886
Spigot	3/4	054881	054887
Spigot	1	054882	054888
Spigot	1-1/4	054883	054889
Spigot	1-1/2	054884	054890
Spigot	2	054885	054891
PVC Body			
True Union	1/2	054892	054898
True Union	3/4	054893	054899
True Union	1	054894	054900
True Union	1-1/4	054895	054901
True Union	1-1/2	054896	054902
True Union	2	054897	054903
PVC Body			
Flanged	1/2	054904	054910
Flanged	3/4	054905	054911
Flanged	1	054906	054912
Flanged	1-1/4	054907	054913
Flanged	1-1/2	054908	054914
Flanged	2	054909	054915

## DIAPHRAGM VALVES - 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.

Valve Series	Size inches	Product Code
	inches	Loae

# Pilot Solenoid Valve - Direct Mount, NBR Seals, 110 VAC



uiio	Direct Mount,	TIDIT Ocais,	110 1/10
	VM	1/4	053074
	CM	1/8	053075

## Pilot Solenoid Valve - Remote Mount, NBR Seals, 110 VAC



1/4 Note: Other voltages are available upon request.

## **Optical Position Indicator**



VM / NC - NO - DA	1/2 - 2	054997
VM / NC - NO - DA	2-1/2 - 4	054998

Protection cap included, see assembly instructions.

## Stroke Limiter



VM / NC	1/2 - 1-1/2	054991
VM / NC	2	054992
*VM / NC	2-1/2 - 4	054993
VM / NO - DA	1/2 - 2	054994
VM / NO - DA	2-1/2 - 4	054995

Protection cap included for VM. \*Actuator must have the metal cap.

## Stroke Limiter w/ Optical Position Indicator



VM / NC	1/2 - 1	054999
VM / NC	1-1/4 - 1-1/2	053063
VM / NC	2	053064
*VM / NC	2-1/2 - 4	053065
VM / NO - DA	1/2 - 2	053066
VM / NO - DA	2-1/2 - 4	053067

Protection cap included for VM.

## Size **Product Valve Series** inches Code

## Stroke Limiter w/ Optical Position Indicator & Manual Override



VM / NC	1/2 - 1	053069
VM / NC	1-1/4 - 2	053071
VM / NO - DA	1/2 - 1	053072
VM / NO - DA	1-1/4 - 2	053073

Protection cap included for VM.

## Electrical Position Indicator - 1 Mechanical Switch



ι	ni inuicatoi	- 1 Mechanicai S	SWITCH
	CM / NC	1/2	054952
	VM / NC	1/2 - 1	054953
	VM / NC	1-1/4 - 1-1/2	054954
	VM / NC	2	054955
	VM / NC	2-1/2 - 4	054956
	VM Manual*	1/2 - 1	054962
	VM Manual*	1-1/4 - 1-1/2	054963
	VM Manual*	2	054964
	VM Manual*	2-1/2 - 3	054965
	VM Manual*	4	054966

<sup>\*</sup> Special machining needed for the valve bonnet and compressor.

## **Microswitch Box** - 2 Electromechanical Switches



VIV	I / NC	1/2 - 1-1/2	054967
VIV	I / NC	2 - 4	054968
VM	I / NO	1/2 - 4	054969

## Microswitch Box - 2 Inductive Switches

. O. OO DOM	2 1110000110 01	11101100
VM / NC	1/2 - 1-1/2	054970
VM / NC	2 - 4	054971
VM / NO	1/2 - 4	054972

## **Compact Microswitch Box**

## - 2 Electromechanical Switches

VM / NC	1/2 - 1	054973
VM / NC	1-1/4 - 1-1/2	054974
VM / NC	2	054975
VM / NO	1/2 - 1	054976
VM / NO	1-1/4 - 1-1/2	054977
VM / NO	2	054978
CM / NC - NO	1/2	054979

## **Compact Microswitch Box**

- 2 Inductive Switches

V	M / NC	1/2 - 1	054980
V	M / NC	1-1/4 - 1-1/2	054981
V	M / NC	2	054982
V	M / NO	1/2 - 1	054983
V	M / NO	1-1/4 - 1-1/2	054984
V	M / NO	2	054985
CM	/ NC - NO	1/2	054986

<sup>\*</sup>Actuator must have the metal cap.

## SXE SERIES BALL CHECK VALVES

The SXE is a complement to the VXE ball valve product line with many of the same features providing trouble free service for industrial, OEM and water service applications. A true union design allows for simple maintenance, while the EasyFit multifunction handle can be used as a tool for ball seal carrier adjustment, and for tightening union nuts precisely. The internal design is optimized for maximum flow and minimum turbulence, preventing ball sticking and chatter. Just a few psi of back pressure is required for positive shutoff in both vertical and horizontal installations. The SXE is available in PVC and CPVC with either EPDM or FPM seals.

Pressure: 232 psi at 73°F Sizes: 1/2" – 4"



End Connection	Size inches	EPDM Product Code	FPM Product Code
PVC			
S/T	1/2	052013	052022
S/T	3/4	052014	052023
S/T	1	052015	052027
S/T	1-1/4	052016	052028
S/T	1-1/2	052017	052030
S/T	2	052018	052120
Socket	2-1/2	052478	052481
Socket	3	052479	052482
Socket	4	052480	052483
CPVC			
S/T	1/2	052121	052127
S/T	3/4	052122	052128
S/T	1	052123	052133
S/T	1-1/4	052124	052134
S/T	1-1/2	052125	052135
S/T	2	052126	052136
Socket	2-1/2	052484	052487
Socket	3	052485	052488
Socket	4	052486	052489

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.

## SSE SERIES SPRING ASSISTED CHECK VALVES



The all new SSE complements our SXE ball check valves, which introduce an advanced method of installation, providing trouble free service for industrial, OEM and water service applications. The internal profile of the SSE, combined with the spring assisted

contoured ball, gives the advantage of trouble-free vertical and horizontal installations, even if only very low back pressure is available. The innovative SSE EasyFit design features a custom labelling system, and the optional EasyFit multifunctional handle allows for union nut rotational control and safe blocked carrier tightening. The SSE is available in PVC with a standard 316SS spring and either EPDM or FPM seals. The spring is also

End Connection	Size inches	EPDM Product Code	FPM Product Code
PVC			
S/T	1/2	052490	052499
S/T	3/4	052491	052500
S/T	1	052492	052501
S/T	1-1/4	052493	052502
S/T	1-1/2	052494	052503
S/T	2	052495	052504
Socket	2-1/2	052496	052505
Socket	3	052497	052506
Socket	4	052498	052507

available in PTFE encapsulated 316SS and Hastelloy, depending on the size.

Pressure: 232 psi at 73°F

Sizes: 1/2" - 4"

## VR SERIES PISTON CHECK VALVES - TRUE UNION, Y-PATTERN

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 FPM seals are available.

Pressure: up to 232 psi depending on the size

Sizes: 1/2" – 4"



End Connection	Size inches	EPDM Product Code	FPM Product Code
PVC			
S/T	1/2	053346	053289
S/T	3/4	053347	053290
S/T	1	053348	053291
S/T	1-1/4	053349	053292
S/T	1-1/2	053350	053293
S/T	2	053351	053294

## PVC

Flanged	1/2	053879	053885
Flanged	3/4	053880	053886
Flanged	1	053881	053887
Flanged	1-1/4	053882	053888
Flanged	1-1/2	053883	053889
Flanged	2	053884	053890

End	Size	EPDM
Connection	inches	Product Code
PVC, NOT True Uni	on	

1 10, 101 1140 011011		
Threaded	3	053352
Threaded	4	053353
Socket	3	053295
Socket	4	053296
Flanged	3	053925
Flanged	4	053926

## 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"

End Connection	Size inches	EPDM Product Code	Viton® Product Code
PVC			
Flanged	3	052289	053875
Flanged	4	052290	053876
Flanged	6	052291	053877
Flanged	8	052292	053878



## **VA SERIES AIR RELEASE VALVES - SINGLE UNION**

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. FPM sealing kits are also available.

Pressure: 232 psi



inches	Product Code	
PVC, Single Union		
3/4	053559	
1-1/4	053560	
2	053561	

Note: Valves supplied with dual (socket & threaded) end connectors for the exhaust port

inches Product Code	
Viton® O-ring Set	
3/4	153845
1-1/4	153846
2	153847

## RV SERIES SEDIMENT STRAINERS - TRUE UNION - Y PATTERN

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 FPM seals, as well as in Corzan® CPVC.

Pressure: up to 150 psi depending on the size

Sizes: 1/2" – 4"



## **RV Series Sediment Strainer Replacement Screens**

Size Inches	Product Code	Size Inches	Product Code
PVC 18 Mes	h - 3/32"	PVC 30 Mes	h - 5/64"
1/2	053947	1/2	053955
3/4	053948	3/4	053956
1	053949	1	053957
1-1/4	053950	1-1/4	053958
1-1/2	053951	1-1/2	053959
2	053952	2	053960
3	053953	3	053961
4	053954	4	053962
PVC 35 Mes	h - 1/32"	PVC 50 Mes	h - 3/64"
1/2	053963	1/2	053971
3/4	053964	3/4	053972
1	053965	1	053973
1-1/4	053966	1-1/4	053974
1-1/2	053967	1-1/2	053975
2	053968	2	053976
3	053969	3	053977
4	053970	4	053978
SS 35 Mesh	- 1/32"	PP 30 Mesh	- 1/16"
1/2	053979	1/2	053332
3/4	053980	3/4	053340
1	053981	1	053341
1-1/4	053982	1-1/4	053342
1-1/2	053983	1-1/2	053343
2	053984	2	053344
3	053985	3	-
4	053986	4	-

End	Size	EPDM	FPM
Connection	inches	Product Code	Product Code

## Clear PVC True Union, w/PVC 35 Mesh Screen

S/T	1/2	053261	053233
S/T	3/4	053262	053234
S/T	1	053263	053235
S/T	1-1/4	053264	053236
S/T	1-1/2	053265	053237
S/T	2	053266	053238

## Clear PVC True Union, w/PVC 35 Mesh Screen

Flanged	1/2	053935	053941
Flanged	3/4	053936	053942
Flanged	1	053937	053943
Flanged	1-1/4	053938	053944
Flanged	1-1/2	053939	053945
Flanged	2	053940	053946

End	Size	FPM
Connection	inches	Product Code
Connection	iliches	Product Code

## CPVC True Union, w/PP 30 Mesh Screen

S/T	1/2	053334
S/T	3/4	053335
S/T	1	053336
S/T	1-1/4	053337
S/T	1-1/2	053338
S/T	2	053339

End	Size	EPDM	FPM
Connection	inches	Product Code	Product Code

## Clear PVC NOT True Union, w/PVC 35 Mesh Screen

Threaded	3	053267	053239
Threaded	4	053268	053240
Socket	3	053211	054012
Socket	4	053212	054013
Flanged	3	054020	054028
Flanged	4	054021	054029

Hole Pitch	I	Availability	J
inches	PVC	SS	PP
0.098	Х	-	-
0.060	-	-	Χ
0.079	-	-	Χ
0.059	Χ	-	-
0.040	Χ	Χ	-
0.028	Χ	-	-
	0.098 0.060 0.079 0.059 0.040	inches         PVC           0.098         X           0.060         -           0.079         -           0.059         X           0.040         X	inches         PVC         SS           0.098         X         -           0.060         -         -           0.079         -         -           0.059         X         -           0.040         X         X

## S12/22 SERIES SOLENOID VALVES - TRUE UNION, NORMALLY CLOSED, 110 VAC

The S12/22 Series replaces the well-received SF Series with a number of new features and is designed for industrial, OEM and water service applications. The S12/22 is direct acting, 2 way-2 position flow control valve, ideal for precise control and high-cycle service. The new high performance electric solenoid actuator has been redesigned to exceed 5 million cycles without having to perform maintenance and a 100% duty cycle means no issues with overheating or "burnout". With their lever type shutter design, standard manual override, and LED position indicator, these valves will outlast and outperform more conventional diaphragm-style solenoid valves. The S12/22 is available in PVC and either EPDM or FPM seals.

Pressure: up to 90 psi at 73°F Sizes: 1/4" and 1/2"	
	A. INTER

Orifice Size	Size inches	EPDM Product Code	FPM Product Code
PVC Socket			
0.16	1/4	353687	353711
0.24	1/4	353688	353712
0.31	1/4	353689	353713
0.31	1/2	353696	353722
0.39	1/2	353709	353721
0.59	1/2	353710	353720
PVC FNPT Th	readed		
0.16	1/4	353723	353699
0.24	1/4	353724	353698
0.31	1/4	353725	353697
0.31	1/2	353734	353708
0.39	1/2	353733	353707
0.59	1/2	353732	353706

Note: 3/8" valves available on request

End

Connection

3-way valves and other voltages are available on request.

## VV ANGLE SEAT VALVE - TRUE UNION, Y-PATTERN

Sizes: 1/2 - 2""



PVC, True Unio	on w/ PTFE Gland P	acking
S/T	1/2	253869
S/T	3/4	253870
S/T	1	253871
S/T	1-1/4	253872
S/T	1-1/2	253873
S/T	2	253874

Size

inches

Note: Viton® sealing sets are available on request, please contact customer service.

## LV SERIES LAB VALVES WITH FNPT, MNPT AND HOSE CONNECTORS

The LV is a versatile 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: 1/4"



Size	Product
inches	Code

## LV Series Lab Valve w FNPT, MNPT & Hose Connectors

1/4

052308

**EPDM** 

**Product Code** 



# **Join the IPEX Winning Tradition**

## **Our Strength:**

An all-star line-up of thermoplastic pipe, valves and fittings, designed and built to work together in any process piping application.

## The IPEX Advantage:

Only IPEX offers a complete system of pipe, valves and fittings engineered and manufactured to IPEX's strict quality, performance and dimensional standards. With Xirtec®140 (industrial grade PVC) and Corzan® (CPVC), you can be confident that all the material you need is designed, manufactured and backed by the same company.



# QUARTER TURN AUTOMATION

## **Quarter Turn Automation - Pneumatic / Electric**

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".

## PNEUMATIC ACTUATORS OVERVIEW

Pneumatic actuators are the most common choice for quarter turn plastic valves in process applications. Compressed air systems are readily available in any plant, and the cost of the actuator itself is generally lower than that of an electric unit with a comparable torque output. Typical quarter turn automation seldom requires positioning (something achieved more easily with an electric actuator), therefore the evaluation of a programming

actuator), therefore the cycle life of a pneumatic unit will be substantially greater, and will be intrinsically safer than an electric actuator in volatile environments. While there are many different kinds of pneumatic actuators, a rack and pinion style is the preferred choice within the plastic piping industry. This type of actuator is quite tough and rugged, and has a high cycle life. They generally have a compact, simple construction, and certain models can be quite light in weight. The design also allows the same basic actuator to be used as a double acting or (with minor additions) a spring return unit.

# DID YOU KNOW?

The three basic control functions available through quarter turn automation are:

- **1. Double Acting** This requires external power for each stroke. For example, power to open the valve, then power to close the valve.
- **2. Normally Open** Also referred to as 'fail safe open', the default position is open and the actuator requires power to close the valve.
- **3. Normally Closed** Also referred to as 'fail safe closed', the default position is closed and the actuator requires power to open the valve.

## ELECTRICAL ACTUATORS OVERVIEW

Although slightly more expensive than pneumatics, electric actuators have certain desirable benefits. They are the preferred choice when cycle time is an issue, as a quick closing pneumatically actuated valve could cause a damaging pressure surge condition (water hammer). The use of an electric actuator may also be preferred when the distance from the power source is considerable. The friction losses in long runs of compressed air line may result in reduced efficiency and/or additional compressor stations. In addition, electric actuators are the preferred (if not the only) choice when a quarterturn valve like a multi-port is used. In this case, it is possible that the travel required is not just 0° to 90° but 0° to 90° to 180°. A rack and pinion actuator would need four separate pistons and a multiplicity of related air chambers, whereas this is easily accomplished with an electric unit. Most electric actuators have a cam/limit switch arrangement which allows the unit to be set up for a variety of rotations. The two standard limit switches can be used to provide a remote location with an open or closed signal. A multitude of voltages both for AC and DC current are also typically available.

## VKD SERIES BALL VALVE - TRUE UNION, PNEUMATIC - DOUBLE ACTING



End Connection	Size inches	EPDM Product Code	Viton® Product Code
PVC w PTFE	Seats		
S/T	1/2	253296	253305
S/T	3/4	253297	253306
S/T	1	253298	253307
S/T	1-1/4	253299	253308
S/T	1-1/2	253300	253309
S/T	2	253301	253310
Socket	2-1/2	253302	253311
Socket	3	253303	253312
Socket	4	253304	253313

End Connection	Size inches	EPDM Product Code	Viton® Product Code
Corzan® CP	VC w PTF	E Seats	
S/T	1/2	253314	253323
S/T	3/4	253315	253324
S/T	1	253316	253325
S/T	1-1/4	253317	253326
S/T	1-1/2	253318	253327
S/T	2	253319	253328
Socket	2-1/2	253320	253329
Socket	3	253321	253330
Socket	4	253322	253331

## Pneumatic - Spring Return, Normally Open

PVC w PTFE Sea	ıts
----------------	-----

•				
	S/T	1/2	253368	253377
	S/T	3/4	253369	253378
	S/T	1	253370	253379
	S/T	1-1/4	253371	253380
	S/T	1-1/2	253372	253381
	S/T	2	253373	253382
	Socket	2-1/2	253374	253383
	Socket	3	253375	253384
	Socket	4	253376	253385

Pneumatic -	Spring	Return.	Normally	v Open

Corzan® CPVC w PTFE Seats

GUIZAII	TVG W FIFE	Seals	
S/T	1/2	253386	253395
S/T	3/4	253387	253396
S/T	1	253388	253397
S/T	1-1/4	253389	253398
S/T	1-1/2	253390	253399
S/T	2	253391	253400
Socket	2-1/2	253392	253401
Socket	3	253393	253402
Socket	4	253394	253403

## Pneumatic - Spring Return, Normally Closed

**PVC w PTFE Seats** 

End

S/T	1/2	253332	253341
S/T	3/4	253333	253342
S/T	1	253334	253343
S/T	1-1/4	253335	253344
S/T	1-1/2	253336	253345
S/T	2	253337	253346
Socket	2-1/2	253338	253347
Socket	3	253339	253348
Socket	4	253340	253349

## Pneumatic - Spring Return, Normally Closed

## Corzan® CPVC w PTFF Seats

GUIZAII GF	VU W FIFE	Seals	
S/T	1/2	253350	253359
S/T	3/4	253351	253360
S/T	1	253352	253361
S/T	1-1/4	253353	253362
S/T	1-1/2	253354	253363
S/T	2	253355	253364
Socket	2-1/2	253356	253365
Socket	3	253357	253366
Socket	4	253358	253367

## VKD SERIES BALL VALVE - ELECTRIC - DOUBLE ACTING, 110 VAC



Connection	inches
PVC w PTFE Se	ats
S/T	1/2
S/T	3/4
S/T	1
S/T	1-1/4
S/T	1-1/2
S/T	2
Socket	2-1/2
Socket	3
Socket	4

Connection	inches
Corzan® CPVC	w PTFE Seats
S/T	1/2
S/T	3/4
S/T	1
S/T	1-1/4
S/T	1-1/2
S/T	2
Socket	2-1/2
Socket	3
Socket	4

Size

For electric valve actuation, you must order three separate components.

Contact IPEX Sales for assistance.

## TKD SERIES 3-WAY BALL VALVE - TRUE UNION, PNEUMATIC - DOUBLE ACTING



Connection	inches	Product Code	Product Code		
PVC w PTFE Seats, L-Port					
S/T	1/2	253791	253797		
S/T	3/4	253792	253798		
S/T	1	253793	253799		
S/T	1-1/4	253794	253800		
S/T	1-1/2	253795	253801		
S/T	2	253796	253802		

End Connection	Size inches	EPDM Product Code	Viton® Product Code
PVC w PTFE	Seats, T	-Port	
S/T	1/2	253803	253809
S/T	3/4	253804	253810
S/T	1	253805	253811
S/T	1-1/4	253806	253812
S/T	1-1/2	253807	253813
S/T	2	253808	253814

# Preumatic - Spring Return, Normally Open PVC w PTFF Seats 1-Port

rvo w rire seats, e-ruit			
S/T	1/2	253744	253750
S/T	3/4	253745	253751
S/T	1	253746	253752
S/T	1-1/4	253747	253753
S/T	1-1/2	253748	253754
S/T	2	253749	253755

Pneumatic -	Spring	Return,	Normally	<b>Open</b>
DVC w DTEE	Spate	T_Dort		

S/T	1/2	253756	253762
S/T	3/4	253757	253763
S/T	1	253758	253764
S/T	1-1/4	253759	253765
S/T	1-1/2	253760	253766
S/T	2	253761	253815

## Pneumatic - Spring Return, Normally Closed

PVC w PTFE Seats. L-Port

•					
	S/T	1/2	253767	253773	
	S/T	3/4	253768	253774	
	S/T	1	253769	253775	
	S/T	1-1/4	253770	253776	
	S/T	1-1/2	253771	253777	
	S/T	2	253772	253778	

Size

## Pneumatic - Spring Return, Normally Closed

PVC w PTFE Seats, T-Port			
S/T	1/2	253779	253785
S/T	3/4	253780	253786
S/T	1	253781	253787
S/T	1-1/4	253782	253788
S/T	1-1/2	253783	253789
S/T	2	253784	253790

## TKD SERIES 3-WAY BALL VALVE - ELECTRIC - DOUBLE ACTING, 110 VAC



Connection	inches
PVC w PTFE Se	ats, L-Port
S/T	1/2
S/T	3/4
S/T	1
S/T	1-1/4
S/T	1-1/2
S/T	2

End

Connection	inches	
PVC w PTFE	Seats, T-Port	
S/T	1/2	
S/T	3/4	
S/T	1	
S/T	1-1/4	
S/T	1-1/2	
S/T	2	

For electric valve actuation, you must order three separate components.

Contact IPEX Sales for assistance.

Note: Customer must specify 'open' and 'closed' positions for 3-way actuated valves. See technical manual for details. Electric actuators can be configured for either 90° or 180° operation.

## FK SERIES BUTTERFLY VALVE - DOUBLE ACTING



Size inches	EPDM Product Code	Viton® Product Code		
PP Disc, Wafer Style				
1-1/2	253536	253546		
2	253537	253547		
2-1/2	253538	253548		
3	253539	253549		
4	253540	253550		
5	253541	253551		
6	253542	253552		
8	253543	253553		
10	253544	253554		
12	253545	253555		

Size inches	EPDM Product Code	Viton® Product Code		
PP Disc, SS Lugs				
2-1/2	253556	253564		
3	253557	253565		
4	253558	253566		
5	253559	253567		
6	253560	253568		
8	253561	253569		
10	253562	253570		
12	253563	253571		

## Pneumatic - Spring Return, Normally Open

PP Disc,	Wafer	Style
----------	-------	-------

,,			
Π	1-1/2	253608	253618
	2	253609	253619
	2-1/2	253610	253620
	3	253611	253621
	4	253612	253622
	5	253613	253623
	6	253614	253624
	8	253615	253625
	10	253616	253626
	12	253617	253627

## Pneumatic - Spring Return, Normally Open

PP Disc, SS Lugs

11 Dioo, 00 Lugo		
2-1/2	253628	253636
3	253629	253637
4	253630	253638
5	253631	253639
6	253632	253640
8	253633	253641
10	253634	253642
12	253635	253643

## **Pneumatic - Spring Return, Normally Closed**

## PP Disc, Wafer Style

-	•	
1-1/2	253572	253582
2	253573	253583
2-1/2	253574	253584
3	253575	253585
4	253576	253586
5	253577	253587
6	253578	253588
8	253579	253589
10	253580	253590
12	253581	253591

## Pneumatic - Spring Return, Normally Closed

## PP Disc, SS Lugs

•	•	
2-1/2	253592	253600
3	253593	253601
4	253594	253602
5	253595	253603
6	253596	253604
8	253597	253605
10	253598	253606
12	253599	253607

## FK SERIES BUTTERFLY VALVES - ELECTRIC - DOUBLE ACTING, 110 VAC



PP	Disc,	Wafe	er St	yle
		1-1/2		
		2		
		2-1/2		
		3		
		4		
		5		
		6		
		8		
Note	. DVC	CDVC	ΛDC	and

Size

inches

inches PP Disc, SS Lugs		
3		
4		
5		
6		
0		

Size

For electric valve actuation, you must order three separate components.

Contact IPEX Sales for assistance.

Note: PVC, CPVC, ABS, and PVDF discs are available on request 10" and 12" electrically actuated butterfly valves are available on request.

## FE SERIES BUTTERFLY VALVE PNEUMATIC - DOUBLE ACTING



Size	EPDM
inches	Product Code

PVC Body & Disc, Wafer Sty	/le
----------------------------	-----

PVC Body & DISC, Wate	er Style
1-1/2	253680
2	253681
2-1/2	253682
3	253683
4	253684
5	253685
6	253686
8	253687
10	253688
12	253689

Size	EPDM
inches	Product Code

## Pneumatic - Spring Return, Normally Open

## PVC Body & Disc. Wafer Style

	·. ··,··
1-1/2	253700
2	253701
2-1/2	253702
3	253703
4	253704
5	253705
6	253706
8	253707
10	253708
12	253709

Note: NBR and Viton® lined valves are available on request

## Pneumatic - Spring Return, Normally Closed

## PVC Body & Disc, Wafer Style

. To boay a bloot, maio.	
1-1/2	253690
2	253691
2-1/2	253692
3	253693
4	253694
5	253695
6	253696
8	253697
10	253698
12	253699

## FE SERIES BUTTERFLY VALVE ELECTRIC - DOUBLE ACTING, 110 VAC



Size inches	

## PVC Body & Disc, Wafer Style

1-1/2
2
2-1/2
3
4
5
6
8

For electric valve actuation, you must order three separate components.

**Contact IPEX Sales for** assistance.

10" and 12" electrically actuated butterfly valves are available upon request.

## PNEUMATIC ACTUATOR ACCESSORIES

Component Style	Product Code

## Pilot Solenoids - 110 VAC, 3/4-Way



NEMA 4/4X	253055
NEMA 7/9	253056

Note: Pilot solenoids meet NAMUR mounting specifications. Other voltages available.

## Limit Switches - NEMA 4/4X



Mechanical	253057
Proximity	253058

Note: Limit switches include universal mounting brackets (ISO 5211)

## **Positioners**



3-15 psi	253061
4 - 20 mA	253059
4 - 20 mA, w/ limit switch (LS)	253816
4 - 20 mA, w/ position transmitter (PT)	253817
4 - 20 mA, w/ LS & PT	253818
4 - 20 mA, I-safe	253062

Note: All positioners include universal mounting brackets (ISO 5211) and gages.

Several other positioners available, including Intrinsically Safe, Explosion proof, Smart, Stainless Steel and High Vibration models, with limit switch and position transmitter options. Please contact IPEX for more information.

# Other



Sandwich Declutch. Gearbox ISO 5211	253819
Muffler - Brass/Bronze	253065
Speed Control - Brass/Bronze	253066

Note: Declutchable gearbox has MAXIMUM torque rating of 2600 in-lbs. For higher torque values, please contact IPEX for larger size gearbox models.

## **MOUNTING ACCESSORIES**

Mounting	Product
Detail	Code

## VKD & TKD Series Ball Valve Mounting Kit



•	o ban vante	mounting Kit	
	1/2	F03 / F04 / 11mm	154048
	3/4	F04 / 11mm	154049
	3/4	F03 / F05 / 11mm	154050
	1	F04 / 11mm	154051
	1	F03 / F05 / 11mm	154052
	1-1/4	F05 / F07 / 11mm	154182
	1-1/4	F05 / F07 / 14mm	154053
	1-1/2	F05 / F07 / 11mm	154183
	1-1/2	F05 / F07 / 14mm	154054
	2	F05 / F07 / 11mm	154174
	2	F05 / F07 / 14mm	154055
	2-1/2 - 4 (VKD)	F05 / F07	153001

## VX Series Ball Valve Mounting Kit



1/2	F04 / F05 / 11mm	154042
3/4	F04 / F05 / 11mm	154043
1	F04 / F05 / 11mm	154044
1-1/4	F04 / F05 / 11mm	154045
1-1/2	F05 / F07 / 14mm	154046
2	F05 / F07 / 14mm	154047

## Spacer Plate for FK Series Butterfly Valves

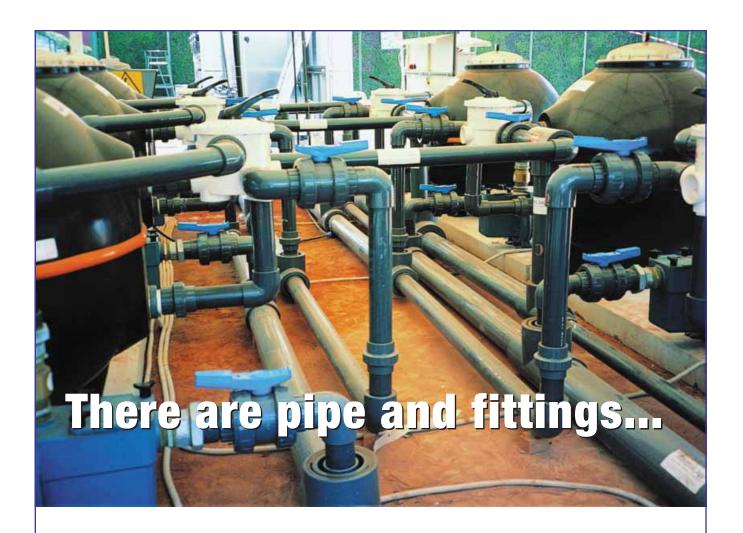


1-1/2 - 6	F05 / F07	153001
8	F10	153002

## **Square Stem Adapter**



•		
0.43 x 0.35	11mm x 9mm	253048
0.55 x 0.43	14mm x 11mm	253049
0.67 x 0.43	17mm x 11mm	253050
0.67 x 0.55	17mm x 14mm	253051
0.87 x 0.67	22mm x 17mm	253052
1.06 x 0.87	27mm x 22mm	253053
1.42 x 1.06	36mm x 27mm	253054



# and then there are valves

IPEX offers one of the most comprehensive ranges of high quality, high performance thermoplastic valves and actuation products available today. With

more than 65 years of design and manufacturing experience, our lightweight, long life, maintenance free valves will save you time and money.

IPEX thermoplastic valves are part of our complete systems of pipe, fittings and valves engineered and manufactured to IPEX's strict quality, performance and dimensional standards. With Xirtec®140 (industrial grade PVC) and Corzan® (CPVC), you can be confident that all

the material you need is designed, manufactured and backed by the same company.

Xirtec®140 and Corzan® high-performance systems feature outstanding resistance to

photodegradation, creep stress and immunity to oxidation and are exceptionally suited for use with a wide range of acids, alcohols, salts and halogens. The perfect long service/low

maintenance alternative to common and exotic metal systems.

Also, our network of manufacturing and customer service facilities across North America ensures fast, reliable service and expert technical support.

- 1) IPEX's highly chemically resistant PVC ventilation duct systems feature seamless pipe for greater flow rates. Their light weight allows for easier handling on the job, which means lower installation costs.
- 2) For applications where quick assembly is required under adverse conditions, IPEX offers factory-grooved PVC pipe designed to mate easily with mechanical grooved couplings.
- 3) And, IPEX well casings offer corrosion-resistant, maintenance-free protection for well-drop-pipe and submersible pumps.

# Specialty Products









Ventilation Duct

Well Casings

Grooved PVC Pipe







# **Ventilation Duct**

PVC & CPVC Exhaust System Ducting

IPEX PVC & CPVC exhaust system ducting provides effective solutions for industrial ventilation systems, protecting workers and the environment from contaminated air.

## **STANDARDS**





ASTM D1784 CAN/ULC S102.2

## **PVC ADVANTAGES**

- 1 PVC cell class 12454 as per ASTM D1784
- 2 Extruded seamless PVC duct in all standard diameters 6" through 24"
- 3 For use in industrial and institutional fume handling systems requiring high resistance to corrosive vapors
- 4 Ideal for plating, metal finishing and laboratory installations

- 5 Low installed cost as compared to noncorrosive metallics
- 6 Light weight allows longer runs and speeds installation with simple tools and piping techniques
- Low maintenance requirements over extended service periods
- 8 Low flame spread rating of 10 as per CAN/ULC \$102.2

## CPVC ADVANTAGES

- 1 Extruded seamless CPVC duct in all standard diameters 6" through 16"
- 2 CPVC withstands exhaust temperatures up to 200°F
- (3) CPVC cell class 23447 as per ASTM 1784
- 4 CPVC is inert to most mineral acids, bases, salts, and aliphatic hydrocarbons, and compares favorably to other non-metals in corrosive chemical environments.
- 5 Ideal for chemical processing, semiconductor fabrication, metal plating & finishing, pulp & paper, waste water treatment plants, and laboratory installations

- 6 Low installed cost as compared to noncorrosive exotic metal systems and PVDF
- 7 Light weight allows for ease of handling and installation and reduces transportation and labor costs
- 8 Low maintenance requirements over extended service periods
- 9 Low flame spread rating of 10 and smoke development classification of 25 as per CAN/ULC \$102.2
- Corzan® CPVC compound meets and is listed FM 4910 "Clean Room Materials Flammability Test Protocol" approval standard

## **Duct Dimensions**

Duct Size Diameter (in x ft)	Product Code	Average O.D. (in.)	Average I.D. (in.)	Average Wall Thickness (in.)	PVC Weight (lbs/ft)	CPVC Weight (lbs/ft)
6 x 20	046700	6.625	6.251	0.187	2.319	2.519
8 x 20	046702	8.625	8.251	0.187	3.040	3.301
10 x 20	046704	10.750	10.376	0.187	3.805	4.133
12 x 20	046706	12.750	12.376	0.187	4.528	4.916
14 x 20	046707	14.000	13.626	0.187	4.978	5.405
16 x 20	046708	16.000	15.626	0.187	5.697	6.188
18 x 20	046709	18.000	17.626	0.187	6.420	-
20 x 20	046711	20.000	19.500	0.250	9.515	-
24 x 20	046713	24.000	23.500	0.250	11.442	_
24 X 20	040/13	24.000	23.500	0.250	11.442	_



10' lengths available upon request.
These products are for atmospheric venting only.
Do not use in pressurized air or gas systems.
CPVC Duct is only available up to 16" diameter.

**PVC Well Casing** 

IPEX bell end PVC well casing provides corrosion-resistant, maintenance-free protection for well drop-pipe and submersible pumps. Its light weight facilitates installation with conventional tools and piping techniques. It is manufactured to ASTM standards and is available throughout North America from IPEX's fully stocked service centers.

N 40 ASIM D2665





ASTM D1784. ASTM D1785. ASTM F480 ASTM D2665 - Sch 40 pipe only

## **ADVANTAGES**

- Meets ASTM D1784, D1785, D2665 (Sch 40 pipe only) and F480 specifications.
- Third-party certified by NSF.
- Solvent weld joints are strong and water tight.
- Installation can be accomplished with lighter setting equipment than is required for metallic piping.
- **(5)** Electrically non-conductive which reduces job site work hazards.
- **(6)** Non-toxic and non-leaching with excellent chemical resistance.
- (7)Available in bell end 2" - 16" or plain end for threading 2" - 12".

## Dimensions for Xirtec140 PVC Well Casing Pipe - ASTM F480

Pipe Size Product		Outside Diameter (in.)		Minimum Wall Thickness (in.)			Bell Length
(in.)	Code	Average	Tolerance on Avg	SDR21	Sch 40	Sch 80	(in.)
2	022620	2.375	±0.006	0.113	0.154	0.218	4.000
2-1/2	022625	2.875	±0.007	0.137	0.203	0.276	5.000
3	022630	3.500	±0.008	0.167	0.216	0.300	5.500
4	022640	4.500	±0.009	0.214	0.237	0.337	6.500
5	022650	5.563	±0.010	0.265	0.258	0.375	6.000
6	022660	6.625	±0.011	0.316	0.280	0.432	8.000
8	022680	8.625	±0.015	0.410	0.322	0.500	7.000
10	022690	10.750	±0.015	0.511	0.365	0.593	7.500
12	022692	12.750	±0.015	0.606	0.406	0.687	8.500
14	022694	14.000	±0.020	0.667	0.437	0.750	9.000
16	022696	16.000	±0.020	0.762	0.500	0.843	10.000

126

WELL CASING

# **Grooved PVC Pipe**

IPEX PVC pipe can be roll or cut-grooved at each end for quick connection using mechanical couplings specifically designed for PVC pipe. This method can be used in any application where PVC pipe is acceptable and where it is desirable to have a means for quick assembly under adverse conditions.

## **ADVANTAGES**

- Completely re-usable pressure system that does not require threading, solvent welding, or flanging.
- Joints are mechanically locked to produce a secure, leak-tight connection under pressure or vacuum. (See coupling manufacturer's product information for details on pressure capabilities.)
- A union at every joint allows for speed and ease of assembly and field maintenance.
- In abrasive applications, pipe can easily be rotated to distribute wear evenly.
- Flexible system permits laying on rough or uneven terrain.
- When using a gasket-type coupler, each joint will absorb some expansion and contraction due to temperature changes.

**Grooved systems facilitate** fast add-ons, modifications or re-location of the pipe.

20 SCH 80 370 PSI @ 73°F



For more information on our Specialty



Products, you can download our Vinyl Process Piping Systems Technical Manual quickly and easily. Just go to our website: www.ipexinc.com.

## **Recommended Piping** for Roll Grooved Joints

Piping Material PVC Sch 40	Pipe Size (inches)	Piping Material PVC Sch 80
22686	2	85194
22688	3	85200
22706	4	85201
22712	6	85202
22714	8	85203
22730	10	85204
22716	12	85205

Consult an IPEX representative for detailed design considerations

3 PVC 1120 SCH 80 37

# NOTES

# MUNICIPAL PRODUCT OVERVIEW

## Blue Brute® CIOD

4" - 12" (100mm - 300mm)

AWWA C900 pressure pipe and fittings.





## Cycle Tough®

1/2" - 24" (12mm - 600mm)

IPSOD PVC pressure pipe and fittings for irrigation and force main applications.

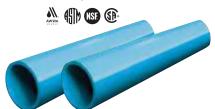


## **BIONAX®**

4" - 18" (100mm - 450mm)

**NEW SIZES** 

AWWA C909 molecularlyenhanced PVC pipe designed for watermains, sewage forcemains, irrigation lines and industrial process piping. Made from biaxially-oriented PVC.



## **IPEX Fusible™**

4" - 36" (100mm - 900mm)

Fusible Brute™ (CIOD) and Fusible Series™ (IPS) pipes are monolithic, fully restrained PVC pipe systems for trenchless or direct bury applications.





# **PRESSURE** PIPING SYSTEMS

## TerraBrute® CR

4" - 12" (100mm - 300mm)

Nonmetallic AWWA C900 PVC pressure pipe system for HDD applications which withstands up to 120,000 lbs of pull force.





## **IPEX Centurion®**

14" - 48" (350mm - 1200mm)

AWWA C905 large diameter pressure pipe and fittings.





## Q-Line®

3/4" & 1" (20mm & 25mm)

AWWA C903-02 composite water service tubing.







Water line compression fittings in CTS OD and ID Series.



## Gold901™

3/4" - 2" (20mm - 50mm)

Polyethylene water service line made to CTS OD.







3/4" - 2" (19mm - 51mm)

PEX water service tubing made to CTS OD (SDR 9).















**Enviro-Tite®** 

4" - 15" (100mm - 375mm)

SDR35 and SDR28 sewer pipes made from 50% recycled material.



## Ring-Tite®

4" - 42" (100mm - 1050mm)

SDR35 and SDR28 sewer pipe and fittings.







# SEWER PIPING **SYSTEMS**





## Perma-Loc™

21" - 36" (525mm - 900mm)

Spiral-wound PVC profile sewer pipe with fusion welded seams.







PVC open-profile sewer pipe and fittings.









## Ultra-X2®

30" - 36" (750mm - 900mm)

Dual wall PVC profile sewer pipe and fittings up to 900mm.



## LifeSaver®

High impact HDPE adjustment units designed to bring manhole and catchbasin castings up to the exact height of the roadway, and prevents road damage caused by infiltration.



# **SPECIALTY PRODUCTS**



## **TEMPEST® Storm Sewer Inlet Controls**

6" sewer outlet pipe and larger

Cost-effective Inlet Control Devices that work together across a series of catch basins to limit the amount of storm water runoff that can enter a combined sewer system during a storm event.



## **Vortex Flow™ Insert**

Custom designed, the Vortex Flow Insert eliminates odorous emissions and minimizes corrosion in vertical sewer drops.

Blue Brute®, BIONAX®, IPEX Centurion®, IPEX Fusible™, TerraBrute® CR, Cycle Tough®, Blue904™, Q-Line®, Gold901™, Philmac® 3G™, Ultra-Rib®, Ultra-X2™, PermalLoc™, Ring-Tite®, Enviro-Tite®, Vortex Flow™, and Life Saver® are trademarks of IPEX Branding Inc.

## 131

# PLUMBING & MECHANICAL PRODUCT OVERVIEW

## AquaRise®

1/2" - 4" (12mm - 100mm)

IPS SDR11 CPVC pipe, valves and fittings for hot and cold water distribution.





## Pipe-with-the-Stripe®

1/2" - 2" (12mm - 50mm)

Pipe with the Stripe is available in standard and CSA-certified Polyethylene, with a permanent coloured stripe ID system.



# POTABLE **WATER**



3/4" & 1" (20mm & 25mm)

AWWA C903 composite water service tubing.





# Blue904™

3/4" - 2" (19mm - 50mm)

PEX water service tubing made to CTS OD (SDR 9).





3/4" - 2" (20mm - 50mm)

Water line compression fittings in CTS OD and ID Series sizes.







## System 636® Flue Gas Venting 1-1/2" - 8" (40mm - 200mm)

PVC-FGV Type BH Class II A vent pipe and fittings and CPVC-FGV Type BH Class II B vent.



# GAS **VENTING**

# XIRTEC & **CORZAN**

## Xirtec 140® PVC - Corzan® CPVC

1/2" - 24" (12mm - 600mm)

XIRTEC 140®: PVC Schedule 40 & 80 pipe and fittings systems.

CORZAN®: CPVC Schedule 80 pipe and fittings systems cell classification 24448 & 23447





## Drainway® ABS DWV Systems

1-1/4" - 6" (32mm - 150mm) ABS DWV pipe and fittings. Also available in cell core.



## **Solvent Weld Sewer** & Drain Piping Systems

3" - 6" (75mm - 150mm)

PVC Building Drain Sewer for sanitary, storm or septic drainage. Perforated pipe for perimeter drainage or septic fields.







**SYSTEMS** 

## **Backwater Valves**

1-1/2" - 6" (40mm - 150mm)

Available in both PVC and ABS lightweight, corrosionresistant plastic.







## DWV System 15® & System XFR®

1-1/2" - 24" (40mm - 600mm)

System 15: Drain, Waste and Vent piping for low-rise commercial or residential installation.

System XFR: Drain, Waste and Vent piping for high-rise commercial or residential including air plenum installations.





# **CEMENTS** & PRIMERS

# **FIRE PROTECTION**



## **Blazemaster® Fire Sprinkler Systems**

3/4" - 3" (20mm - 75mm)

CPVC Pipe & Fittings for Fire Sprinkler Systems.









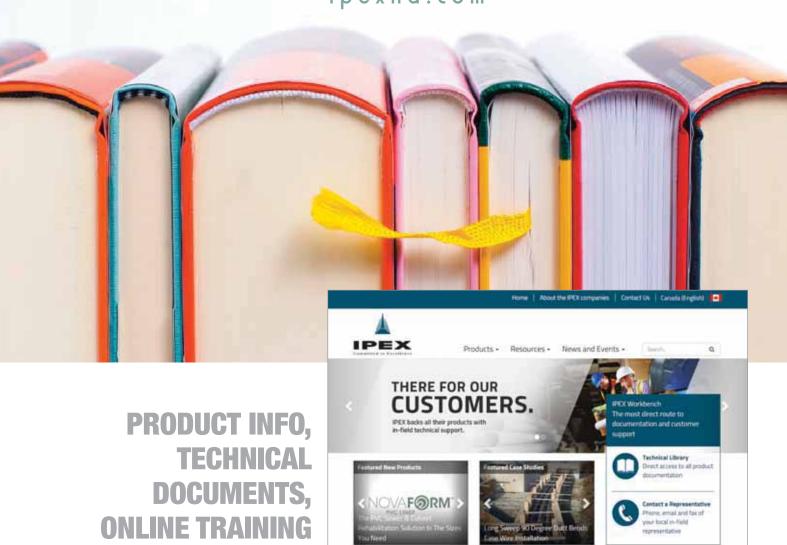


# NOTES

# NOTES

# Bookmark Our Website

ipexna.com



& MUCH MORE ...





## **OUR TECHNICAL MANUALS INCLUDE:**

- Standards
- Specifications
- Dimensions
- Pressure Ratings
- Design Calculations
- and much more ...

available at ipexna.com

## SALES AND CUSTOMER SERVICE

Call IPEX Inc

Toll Free: (866) 473-9462

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 world's 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 a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX group products are:

- Industrial process piping systems
- Double containment systems
- Acid waste systems
- High purity systems
- Compressed air and inert gas piping system
- Manual and actuated thermoplastic valves
- Industrial, plumbing and electrical cements
- 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
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

Products are manufactured by IPEX Inc.

Valves are manufactured by FIP S.P.A. and distributed in Canada by IPEX Inc.

Centra-Guard<sup>TM</sup>, Centra-Lok<sup>TM</sup>, Clear-Guard<sup>TM</sup>, CustomGuard<sup>®</sup>, Duraplus<sup>®</sup>, Duratec<sup>®</sup>, Encase<sup>TM</sup>, Enfield<sup>®</sup>, Enpure<sup>TM</sup>, Floway<sup>TM</sup>, Guardian<sup>TM</sup>, Labline<sup>®</sup>, Neutratank<sup>®</sup>, Neutrasystem2<sup>TM</sup>, Plenumline<sup>TM</sup> and Xirtec<sup>®</sup>140 are trademarks of IPEX Branding Inc.

Corzan® is a registered trademark of the Lubrizol Corp.

This literature is published in good faith and is believed to be reliable. However, it 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.

A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.



