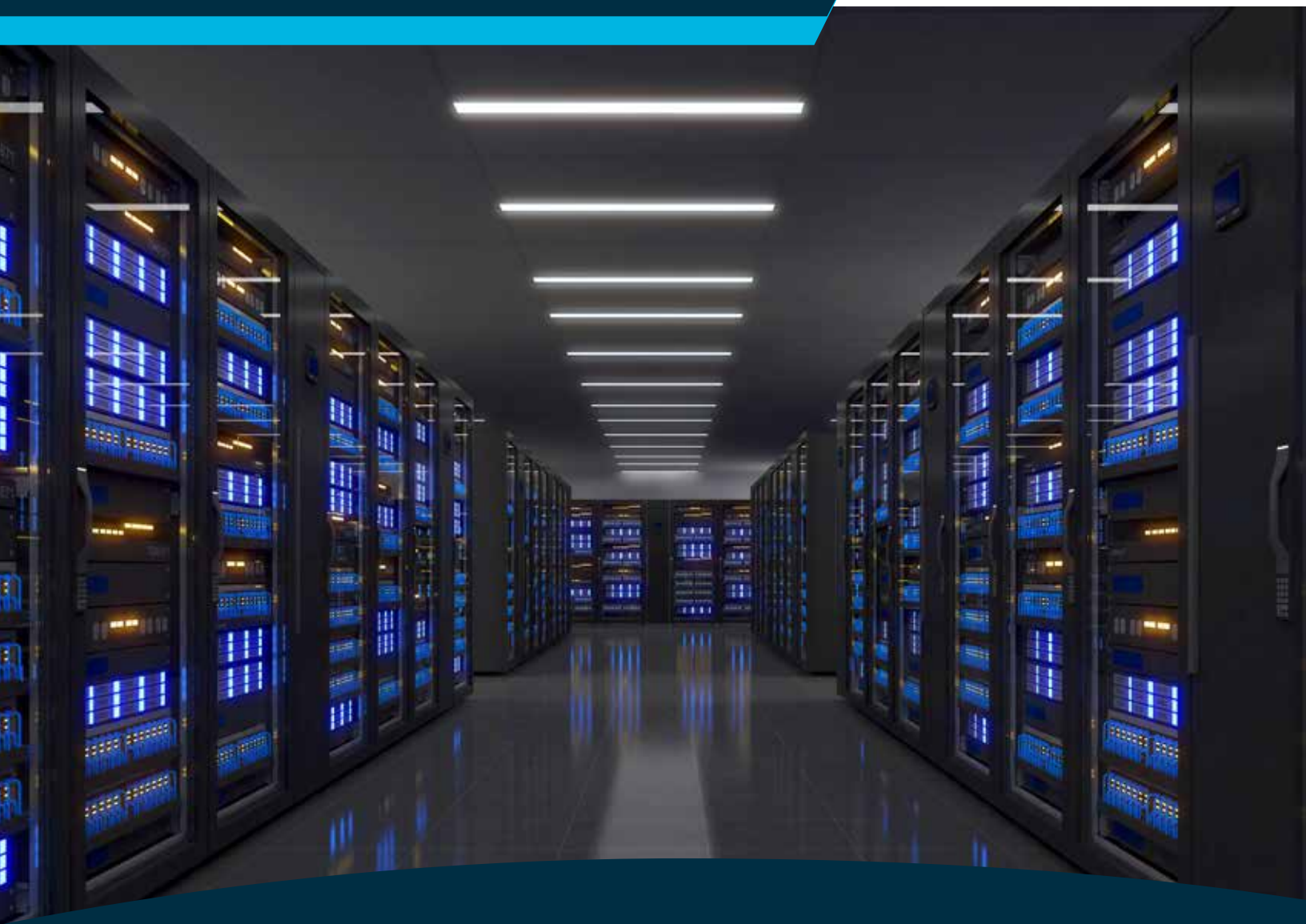
Piping Systems for Data Center Applications

IPEX
by aliaxis



IPEX INTEGRATED SOLUTIONS FOR DATA CENTERS

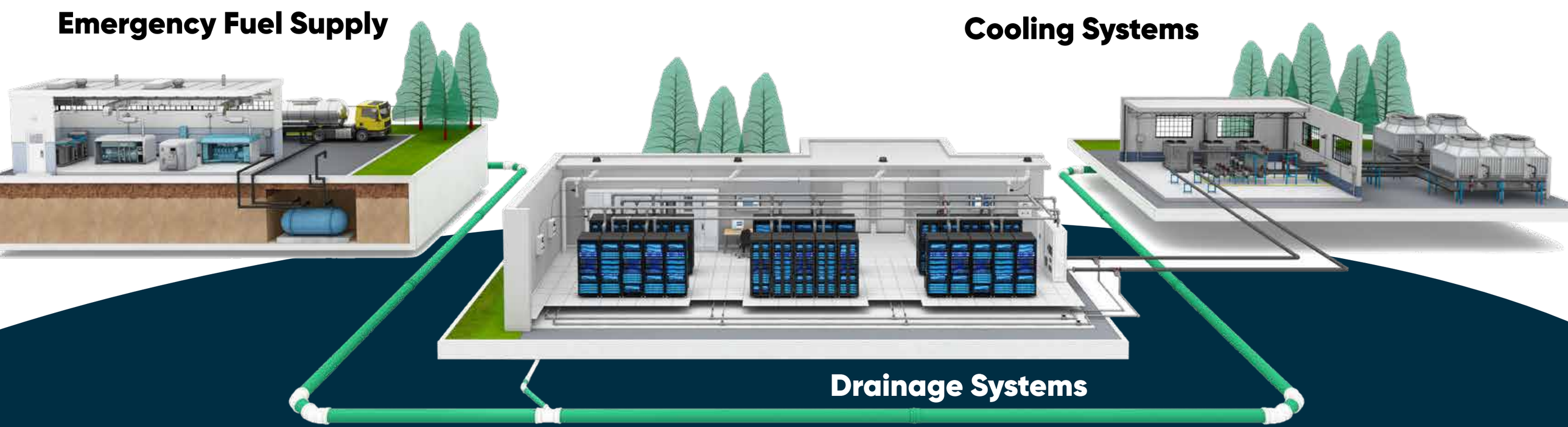
- **Customizable Double Containment Piping Systems**
- **Process Piping Systems**
- **Thermoplastic Valves, Automation, and Instrumentation**
- **Corrosion-Resistant DWV**
- **Ventilation Ductwork**
- **Fire Detection Systems**
- **Electrical Conduit Systems**

As an industry leader in thermoplastic piping systems, we offer an extensive range of innovative solutions that address the unique needs of high-performance and fast-paced data center projects, where it is critical to maintain safety, efficiency, and reliability. Our Thermoplastic Piping, Valves, and Fittings (PVF) systems are easily integrated into Mission Critical data centers to ensure long-term reliability to meet the increasing performances demand in this key infrastructure sector.

WIDE PRODUCT RANGE OF THERMOPLASTIC PIPING

- Non-corroding materials for durability and reduced maintenance
- Easy installation and system repairs enhance maintenance operations
- National distribution and local sales support for responsive service
- In-house Virtual Design and Construction (VDC) support
- On-site training to ensure quality installations.

CHEMICAL AND DRAINAGE SYSTEMS



Engineering Support That Makes a Difference

30+ YEARS

Over 30 years of experience with thermoplastic system layout and fabrication

Dedicated in-house engineering and fabrication specialists

VDC Support

Virtual Design and Construction (VDC) support for project coordination

Drawing files available in Revit, CAD, DWG, and STP formats

Early-stage collaboration to reduce rework and improve install efficiency

Technical expertise across all major thermoplastic systems

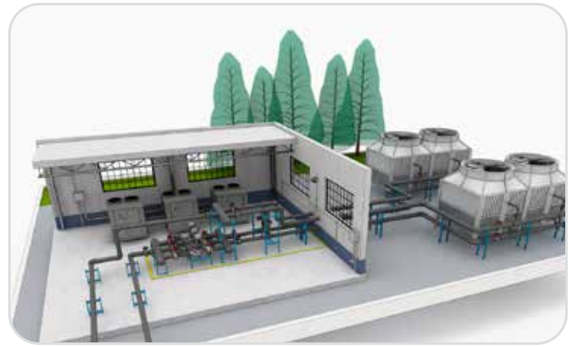
APPLICATION

COOLING SYSTEMS

Mission Critical cooling requires piping systems that offer reliable and effective operation. IPEX provides Xirtec® Schedule 80 PVC piping which is readily available and offers operation temperatures up to 140°F, corrosion resistance, low thermal conductivity, smooth inner bore, reliable and permanent solvent weld joining, low material and installation cost, and a 50 year design life. IPEX also offers Xirtec® CPVC made with Corzan® CPVC which adds greater impact resistance, operating temperatures up to 180°F, and a 25/50 plenum rating. Both systems can be direct buried, installed under ceiling, in a trench, or outdoors in direct sun without the need for coating or added protection. PVC and CPVC do not rust, pit, or scale over time so there is no need for corrosion inhibitors, there is no reduction in process efficiency, and no contamination floating around in your process fluid.

When it comes to installation PVC and CPVC utilize solvent welding, a permanent and reliable joining method that does not require any special equipment or specialized labor. This helps keep costs, installation time, and repair time down.

For added leak protection in mission critical applications IPEX offers Guradian double containment piping systems. These systems are constructed of PVC or CPVC process pipe inside of PVC or CPVC containment pipe and when combined with CentraGuard leak detection offer fail safe leak protection across the entire facility. If a system ever needs to be modified, IPEX Xirtec® PVC and CPVC piping systems are available nation wide through our extensive network of warehouses and partner distributors so you are never left waiting for materials to arrive.



Guardian™ PVC Double Containment	1/2″ x 2″ to 18″x 24″
Guardian™ CPVC Double Containment	1/2″ x 2″ to 16″x 24″
Xirtec® PVC Sch80	1/2″ to 24″
Xirtec® CPVC Sch80 made with Corzan® CPVC	1/2″ to 16″

Guardian™ Xirtec® PVC Xirtec® CPVC Made with Corzan® CPVC

CHEMICAL DOSING SYSTEMS

When cooling water requires chemical treatment with corrosion inhibitors or anti-microbials, IPEX offers several single wall and double wall options in PVC and CPVC. These materials are chemically resistant to most commonly used treatment chemicals in the industry.

Guardian™	1/2" to 24"
Xirtec® PVC	1/2" to 24"
Xirtec® CPVC made with Corzan® CPVC	1/2" to 16"

EMERGENCY FUEL SUPPLY

We offer metallic double containment solutions that can be customized using dissimilar materials. These systems are ideal for mission-critical data center environments where emergency generators are essential for maintaining uptime during power disruptions. They offer enhanced protection and can be combined with Centra-Guard™ leak detection to meet EPA regulations for below-ground storage tanks and piping.

CustomGuard®	1/2" x 2 to 20" x 26"

SUPPORT SYSTEMS FOR PERFORMANCE

DRAINAGE SYSTEMS

In Data Centers even a simple drainage system can be considered mission critical. IPEX offer both single wall and double wall PVC drainage systems for condensate or storm water management. These systems offer a cost effective and maintenance free solution with reliable and permanent solvent weld joints. Drain-Guard Double wall PVC DWV adds an extra level of failsafe leak protection to eliminate potential leaks.

PVC DWV	1-1/2" to 24"
DrainGuard™	1-1/2" to 24"
Ring-Tite®	4" to 60"

Guardian™

Centra-Guard™
Double Containment Leak Detection System

CustomGuard®
Specialty Double Containment Systems

Xirtec® PVC

Xirtec® CPVC
Made with Corzan® CPVC

DRAIN-GUARD™ DWV
Drainage Systems for Noncombustible Buildings

THERMOPLASTIC VALVES

We offer a complete range of industrial-grade thermoplastic valves that can be manual or actuated. Both pneumatic and electric actuation options are supported. These valves come in various materials and seals and can be contained to integrate with our Process Piping or Double Containment Systems.

Ball Valves	3/8″ to 6″
Butterfly Valves	1-1/2″ to 24″
Diaphragm Vavles	4″ to 60″

VENTILATION DUCTWORK

Vent Duct PVC & CPVC

Our PVC and CPVC ventilation ductwork systems are ideal for high-humidity areas in data centers, such as battery storage rooms or generator enclosures. These systems are corrosion-resistant, easy to install, and provide a cost-effective alternative to stainless steel for safe air movement and fume evacuation.

PVC Vent Duct	6″ to 24″
CPVC Vent Duct	6″ to 16″

FIRE DETECTION SYSTEMS

BlazeMaster® CPVC

Our ASD Smoke Detection system is constructed from 3/4″ CPVC pipe and fittings.

It enables efficient air sampling for early smoke detection in sensitive environments like server rooms and clean spaces.

In addition to detection, we also offer BlazeMaster® CPVC fire suppression systems for complete fire protection in light hazard commercial applications.

BlazeMaster® CPVC Systems	3/4″ to 3″

ELECTRICAL CONDUIT SYSTEM

Scepter® Rigid PVC Conduit & Fittings, Scepter® JBox, Underground Duct Spacers, Kwikon® ENT & Fittings, Kwikflex® NMLT Conduit & Fittings

We offer a full suite of non-metallic conduit, fittings, junction boxes, and spacers. Our comprehensive product offering provides a complete electrical raceway solution to both feed and distribute power/ telecommunications in data centers. Made from impact-resistant PVC, these products are easy to install, lightweight, and non-corroding. Their robust design ensures long service life while safeguarding crucial process wiring.

Scepter® Rigid PVC Conduit Fittings*	1/2″ to 6″
Scepter® JBox	Standard Cover: 4″ x 4″ x 2″ to 16″ x 16″ x 10″ Hinged Cover: 8″ x 8″ x 4″ to 16″ x 16″ x 10″
Underground Duct Spacers	2″ to 8″ Conduit 1-1/2″ to 3″ Spacing
Kwikon ENT & Fittings	1/2″ to 2-1/2″
Kwikflex NMLT Conduit & Fittings	3/8″ to 2″

*Select fittings and bends offered in 8″

BlazeMaster® FIRE SPRINKLER SYSTEMS

Scepter® Electrical Systems

About IPEX

As leading suppliers of thermoplastic piping systems, IPEX 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 by Aliaxis products are:

- 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, and ABS pipe and fittings

SALES AND CUSTOMER SERVICE

IPEX USA LLC.
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ipexna.com

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