

Industrial Case Study

Drain-Guard™
Centra-Guard™
CustomGuard®

PROJECT:

Gilcrease Museum in Tulsa,
Oklahoma

PRODUCTS:

Drain-Guard™, Centra-Guard™
& CustomGuard® Double
Containment Piping System

PROJECT SUCCESS:

- Ability to customize double containment piping for the project
- Variety materials from thermoplastic to stainless steel to meet various drainage and pressure needs
- Faster installation — fewer joints required from IPEX's Centra-Lok™ technology

Drain-Guard™ and CustomGuard® will protect priceless museum collection

IPEX piping systems the choice for a double containment system for water and wastewater in Oklahoma facility



IPEX has been a great partner on this project. The combination of the quality materials and the double containment system will protect this museum and its highly valued collections for years to come.

Robert Crawford,
OCE Mechanical

SUMMARY

The new Gilcrease Museum in Tulsa, Oklahoma called upon IPEX and its Drain-Guard™ and CustomGuard® double containment drain, waste and vent systems to provide the perfect one-two combination in leak protection. The museum's new gallery/exhibit spaces and art storage facilities are equipped with a combination of off-the-shelf and custom components that will keep its vast and priceless collection safe from water damage.

THE CHALLENGE

When the aging Thomas Gilcrease Institute of American History and Art in Tulsa, Oklahoma required demolition and rebuilding to modernize and expand, the highest priority of the US\$84 million project was the protection of the art and artifacts in its collection. The Gilcrease Museum houses more than 350 years of American paintings, sculptures and artifacts with an estimated worth of \$2 billion.

The design of the new structure features exposed ceilings, which required careful consideration of the systems that would prevent any water damage to the irreplaceable art and artifacts in gallery and exhibition spaces and in storage from exposed drain lines running overhead.



THE SOLUTION

There are many environments – hospitals, data centres, museums, historical sites, libraries, to name just a few – that require fail-safe anti-leak drainage for water, wastewater and heating systems. IPEX has been a leader in double containment systems for more than 25 years and is among few manufacturers with a division dedicated solely to the design, production and installation of state-of-the-art double containment systems.

IPEX's range of piping solutions, its products that matched engineering specifications for the project and the knowledge and expertise of the company won the project.

Drain-Guard™ double containment piping systems provide safe transport of sanitary waste and storm water in critical areas. Interior carrier pipes run inside containment pipes, both made of industrial-grade Xirtec® PVC.

If, on the off chance there is a leak in the inside pipe, the outside carrier pipe will protect anything that's in the room.

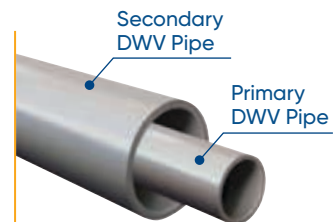
IPEX controls the blending of the PVC resin used in Drain-Guard, along with the extrusion

and injection molding of components. This provides unparalleled consistency of quality in the resin as well as dimensional compatibility.

Drain-Guard features the patented Centra-Lok™ design that reduces the required joints by 40 to 60 per cent compared to conventional double containment systems.

That saves on installation costs but, more importantly, since joints are the most vulnerable source of leaks and failures, Centra-Lok is critical to applications where leak containment is a must. Double wall solvent weld joints set a new industry standard for joint tightness in a DWV application. IPEX provides the hands-on training needed by contractors to properly install Drain-Guard and CustomGuard products.

Where off-the-shelf components weren't available, IPEX offers CustomGuard®, a customized solution that includes material selection (carbon and stainless steel, copper, fiberglass and a variety of plastics), design, specification support (if needed) and fabrication of pre-assembled pieces to minimize installation time and field joints.



Drain-Guard™

When a leak from a primary DWV pipeline occurs in a double containment system, the fluid is safely and completely contained by the secondary DWV pipe.



Centra-Guard™

Double wall solvent weld joints for joint tightness in DWV applications



This was a highly specialized and customized application and our first double containment project. IPEX has been a great partner on this project. The combination of the quality materials and the double containment system will protect this museum and its highly valued collections for years to come.



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THE RESULTS

A sophisticated leak detection system includes highly sensitive sensors in drop areas on the outer lines. When those sensors are activated, an alarm in a panel indicates the general area where the leak is happening, which is critical to finding any leak and fixing it quickly.

When complete, about 2.5 kilometres of IPEX's Drain-Guard™ double containment pipes, ranging from 16-inch to half-inch, along with CustomGuard® fittings, all protected by the advanced leak-detection system, will be installed in the Gilcrease Museum. Altogether, about one-third of the building requires the double containment system.

PROJECT SUCCESS



Customized Piping Solutions

IPEX has a specialized and dedicated division dealing exclusively with the development of off-the-shelf double containment systems, along with the ability to manufacture custom components in-house.



Different Materials for Different Applications

IPEX double containment systems come in a variety of materials including thermoplastics, thermosets, carbon and stainless steel and copper, along with hybrid systems to suit various drainage and pressure applications.



Faster Installation & Cost Saving

IPEX's patented Centra-Lok™ technology allows for 40 to 60 per cent fewer joints than conventional systems.



CustomGuard®

Different material section available for various drainage & pressure applications

Centra-Guard™



Leak-detection system continuously reads system status and reports alarms

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