

# DRAINAGE SYSTEMS FOR NONCOMBUSTIBLE BUILDINGS

## SYSTEM 15® DWV DRAIN-GUARD™ DWV

## SYSTEM XFR® DWV MJ GREY™ DWV

From underground parking garages to hospitals to high-rise buildings, more and more mechanical contractors and engineers are switching to a long-lasting DWV solution.

Why are PVC systems from IPEX becoming the new standard? As an integrated solution, System 15® and System XFR® meet all code requirements for noncombustible buildings. More importantly, they provide the required rugged reliability with all the added benefits of PVC. They're lighter than their metal counterparts, making them easier to handle and install. Very durable, they resist corrosion and require virtually no maintenance. And they yield substantial cost savings both now and down the road.

Clearly System 15 and System XFR have raised the bar—and pipe—for DWV systems in noncombustible buildings.

Drain-Guard™ double containment piping systems provide safe transport of sanitary or storm drainage in critical areas. Should a leak occur, people, equipment and valuable property will be protected from possible harm.

Depending on your application, Drain-Guard is a double containment piping system using System 15 and/or System XFR as its primary components. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept.

MJ Grey™ mechanical couplings are a great alternative to solvent cementing when working in cold weather conditions or from heights in a sissor lift or bucket.

## APPLICATIONS

Drain Waste and Vent Piping in:

- Commercial
- Residential
- Above ground or underground
- Industrial

## STANDARDS



CSA B181.2  
CAN/ULC S102.2

## ADVANTAGES

### 1 Lightweight, Easier to Install

A PVC system is as much as 75% lighter than equivalent lengths of cast iron, making it easier to handle, store and install. It's so light no special equipment is needed to hoist it up during installation, making what used to be awkward, back-breaking work now an easy one man job. In this way, a PVC system can lower labour requirements and reduce installation costs.

### 2 Corrosion-Resistant, Less Maintenance

Unlike cast iron pipe, a PVC system doesn't rust, pit, scale or corrode. In fact, its interior and exterior walls remain smooth in virtually any service condition, requiring virtually no maintenance and ensuring years of reliable service.

### 3 Cost-Savings Now and Over Long-term

No matter how you look at it, a PVC system is more cost-effective than a traditional metal system. It's less costly to transport and store. It's easier to install, bringing down installation costs. It lasts longer. What this all adds up to is substantial savings now and in the future.

### 4 A More Aesthetic Alternative

Sleek and streamlined, PVC presents a more pleasing, aesthetic alternative to traditional metal systems. And as they won't rust and degrade, your PVC system will look as good in ten years as it does the day you install it.



## CODE COMPATIBILITY

System 15 pipe and fittings, when used in combination with System XFR, not only satisfies National and Provincial Building Codes but also provides a cost effective trouble-free long-term installation.

- To use thermoplastic piping in a building classified as noncombustible, the material must meet a Flame Spread Rating of 25 or less. Approval to use thermoplastic piping in noncombustible buildings is detailed in clause 3.1.5.16 of the building code.
- Products for use within air plenums must meet a Flame Spread of 25 or less and a Smoke Developed Classification of 50 or less. (Building Code article 3.6.4.3. (1).)
- Products to be used within a building deemed to be high-rise must also meet the Smoke Developed Classification of 50 or less. (Building Code article 3.2.6).
- The fire resistance rating of a material is attained by having the product tested according to a prescribed test method. National and Provincial Codes specify the test requirements in 3.1.12.1.(2). In the case of thermoplastic piping the prescribed test method is CAN/ULC S102.2.

By using System 15 and System XFR in combination, designers and contractors can maximize the potential installation and cost benefits offered by these two products.

### System 15®

System 15 meets the general requirements of noncombustible construction. However, System 15 is not approved for use in air plenums (transitions to System XFR are acceptable here) or buildings classified as high-rise. System 15 also is a viable option for a more rugged underground storm or sanitary drain on the private side of commercial buildings.

### System XFR®

System XFR meets the requirements for noncombustible buildings, and the further restrictions of smoke development for air plenums and high rise buildings.

In high-rise buildings, System XFR must be used throughout the building to satisfy the requirement for a 50 Smoke Developed Criterion.

### Drain-Guard™

Drain-Guard is our latest innovation to the System 15 and System XFR family of products. The many performance benefits of System 15 and System XFR are enhanced by this dual pipe concept.

Contact IPEX for product availability and pricing for a customized solution on your next project.

### MJ Grey™

Meets all the same requirements of System 15 and System XFR and can be used in the same applications.

Note: Combustible DWV piping products are not allowed in a vertical service space.



# SYSTEM 15 DRAINAGE SYSTEMS

1-1/2" - 24" (40mm - 600mm)

## SYSTEM 15® DWV

As an investment, System 15® is a winner. It's a cost-effective "workhorse" designed for the majority of low-rise and light commercial applications where DWV systems don't run through air plenums.

In addition to costing less than cast iron, System 15 pipe and fittings are engineered to withstand years of uninterrupted service. Made of tough, impact resistant PVC, System 15 won't rust, pit, scale or degrade, even under continued exposure to moisture, salts, aggressive soils and most acids. Interior and exterior walls remain smooth, ensuring years of reliable, maintenance-free flow.

As well, System 15 is lightweight and easy to handle, making installation — even in confined or awkward wall spaces — fast and easy. There's no need to pay for special hoisting equipment or extra manpower. This all converts to significant cost savings over copper and cast iron piping.

Do the math: System 15 is an unbeatable, cost-effective investment — now and for years to come.

### ADVANTAGES

- 1 Flame Spread**  
When tested to the CAN/ULC S102.2 Standard, System 15 achieved a Flame Spread Rating of not greater than 25.
- 2 Cost Effective**  
Lightweight. Easy to handle. Fast installation with no special equipment required. Substantial project cost savings over traditional piping materials.
- 3 Broad Range of Sizes**  
CSA certified in sizes from 1-1/2" to 24" in diameter. The most extensive DWV package available in North America.
- 4 Long-term Reliability**  
System 15 performs well under constant use in harsh environments corrosive to other materials.
- 5 Impact Resistance**  
The high impact strength of System 15 reduces jobsite damage and wastage.
- 6 Simple Joining**  
Solvent cementing eliminates the need for cumbersome tools and the hazards of torches on site.
- 7 Direct Burial**  
Suitable for both above- and below-grade applications, eliminating the transition to other pipe materials at grade level.

### APPLICATIONS

Drain Waste and Vent Piping in:


- Commercial
- Industrial
- Residential
- Above ground or underground

### STANDARDS



CSA B181.2  
CAN/ULC S102.2



 **DID YOU KNOW?**

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There's no need to pay for special hoisting equipment or extra manpower. This all converts to significant cost savings over copper and cast iron piping

**SHORT FORM SPECIFICATIONS****SYSTEM 15 DWV PIPE AND FITTINGS**

IPEX System 15 Drain, Waste and Vent pipe and fittings shall be certified to CSA B181.2. When combustible pipe and fittings are used in buildings required to be of noncombustible construction, they shall be listed by ULC to the Standard CAN/ULC S102.2 and clearly marked with the certification logo indicating a Flame Spread Rating not exceeding 25.


IPEX System 15<sup>®</sup> pipe and fittings have been tested and certified by CSA to the CSA B181.2 standard.

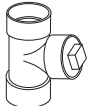
**Test Results**

ITS (Warnock Hersey) conducted the testing in accordance with CAN/ULC S102.2 test standard. The following table summarizes the results of these tests.


Component	Flame Spread Rating	Smoke-Developed Classification
<b>System 15<sup>®</sup></b>		
Pipe	10	> 50
Fittings	15	> 50


## PRODUCT SELECTION CHART - SYSTEM 15


	Dimension		Product Code	
	inches	mm		
<b>System 15 DWV Pipe</b>				
 Plain End 12 foot lengths	1-1/2	40	010001	
	2	50	010002	
	3	75	010003	
	4	100	010004	
	6	150	010006	
	8	200	010087	
	10	250	010088	
	12	300	010089	
	Bell End 20 foot lengths	4	100	010005
		6	150	010046
		8	200	010008
		10	250	010010
12		300	010012	
14		350	010031	
Note: Sizes 4" and 6", 20 foot lengths are sold in Western Canada only.	16	400	010032	
	18	450	010034	
	20	500	010035	
	24	600	010036	


<b>Line Cleanout</b>	H x H x Gasket Plug		
	1-1/2	40	026040
	2	50	026041
	3	75	026103
	4	100	026104
	4 x 3 x 4	100 x 75 x 100	026105
	6	150	026161

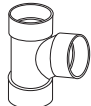
<b>Line Cleanout</b>	Sp x Sp x Threaded Plug		FOR USE WITH <b>MJ GREY™</b>
	8	200	226953

<b>Plug Cleanout</b>	MPT with Gasket		
	1-1/2	40	026401
	2	50	026402
	3	75	026403
	4	100	026404
	6	150	026405

<b>Fitting Cleanout</b>	Sp x FPT		
	1-1/2	40	026042
	2	50	026046
	3	75	026047
	4	100	026048
	6	150	026050

<b>Fitting Cleanout</b>	Sp x Gasket Threaded Plug		Product Code
	inches	mm	
	1-1/2	40	026345
	2	50	026346
	3	75	026347
	4	100	026348
	6	150	026349
	8	200	026301

<b>Tube End Cleanout</b>	H x Gasket Plug		
	1-1/2	40	026291
	2	50	026298
	3	75	026299
	4	100	026300

<b>Sanitary Tee</b>	H x H x H		
	1-1/2	40	026081
	2	50	026082
	2 x 1-1/2 x 1-1/2	50 x 40 x 40	026058
	2 x 1-1/2 x 2	50 x 40 x 50	026057
	2 x 2 x 1-1/2	50 x 50 x 40	026056
	3	75	026083
	3 x 3 x 1-1/2	75 x 75 x 40	026061
	3 x 3 x 2	75 x 75 x 50	026060
	4	100	026084
	4 x 4 x 2	100 x 100 x 50	026064
	4 x 4 x 3	100 x 100 x 75	026066
	6	150	026377
	6 x 6 x 4	150 x 150 x 100	026385
	8	200	026810
	8 x 4	200 x 100	026808
	8 x 6	200 x 150	026809
	10	250	026814
	10 x 4	250 x 100	026811
	10 x 6	250 x 150	026812
	10 x 8	250 x 200	026813
12 x 4	300 x 100	026815	
12 x 6	300 x 150	026816	
12 x 8	300 x 200	026817	
12 x 10	300 x 250	026818	
14 x 4	350 x 100	026820	
14 x 6	350 x 150	026821	
16 x 4	400 x 100	026826	
16 x 6	400 x 150	026827	
18 x 4	450 x 100	026833	
18 x 6	450 x 150	026834	