DRAINAGE SYSTEMS FOR NONCOMBUSTIBLE BUILDINGS

SYSTEM 15® DWV
SYSTEM XFR® DWV
DRAIN-GUARD™ DWV
MJ GREY™ DWV

From underground parking garages to hospitals to high 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 welding when working in cold weather conditions or from heights in a scissor lift or bucket.

APPLICATIONS

Drain Waste and Vent Piping in:

- Commercial
- Industrial
- Residential
- Above ground or underground

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.

APPLICATIONS

Drain Waste and Vent Piping in:

- Commercial
- Industrial
- Residential
- Above ground or underground

STANDARDS

CSA B181.2
CAN/ULC S102.2

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 welding 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.

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® pipe and fittings have been tested and certified by CSA to the CSA B181.2 standard.

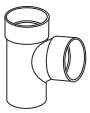
Test Results

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
System 15®		
Pipe	10	> 50
Fittings	15	> 50

PRODUCT SELECTION CHART - SYSTEM 15

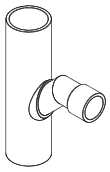
Sanitary Tee Sp x H x H



Dimension inches	Dimension mm	Product Code
1-1/2	40	026550
3 x 3 x 1-1/2	75 x 75 x 40	026552
4 x 4 x 2	100 x 100 x 50	026554
4	100	026557

Sanitary Tee Sp x Sp x H

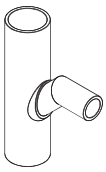
FOR USE WITH MJ GREY™



Dimension inches	Dimension mm	Product Code
8 x 4	200 x 100	226955
8 x 6	200 x 150	226940
10 x 4	250 x 100	226939
10 x 6	250 x 150	226942
12 x 4	300 x 100	226945
12 x 6	300 x 150	226946

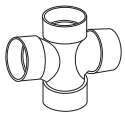
Sanitary Tee Sp x Sp x Sp

FOR USE WITH MJ GREY™



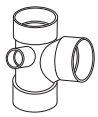
Dimension inches	Dimension mm	Product Code
8	200	226941
10 x 8	250 x 200	226943
10	250	226944
12 x 8	300 x 200	226947
12 x 10	300 x 250	226948
12	300	226949

Double Sanitary Tee H x H x H x H



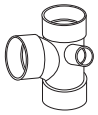
Dimension inches	Dimension mm	Product Code
1-1/2	40	026542
2	50	026543
2 x 2 x 1-1/2 x 1-1/2	50 x 50 x 40 x 40	026547
3	75	026544
3 x 3 x 1-1/2 x 1-1/2	75 x 75 x 40 x 40	026538
3 x 3 x 2 x 2	75 x 75 x 50 x 50	026539
4	100	026545

Sanitary Tee Side Inlet (left hand) H x H x H x H SI



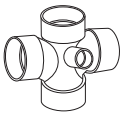
Dimension inches	Dimension mm	Product Code
3 x 3 x 3 x 1-1/2	75 x 75 x 75 x 40	026395
3 x 3 x 3 x 2	75 x 75 x 75 x 50	026396

Sanitary Tee Side Inlet (right hand) H x H x H x H SI



Dimension inches	Dimension mm	Product Code
3 x 3 x 3 x 1-1/2	75 x 75 x 75 x 40	026397
3 x 3 x 3 x 2	75 x 75 x 75 x 50	026398

Double Sanitary Tee Side Inlet H x H x H x H SI



Dimension inches	Dimension mm	Product Code
3 x 3 x 3 x 3 x 1-1/2	75x75x75x75x40	026336

90° Elbow H x H

Dimension inches	Dimension mm	Product Code
1 1/2	40	026121
1-1/2 L	40 L	026024
2	50	026035
2 L	50 L	026122
3	75	026025
3 L	75 L	026123
4	100	026124
4 L	100 L	026115
6	150	026125
8	200	026126
10	250	026127
12	300	026128
14	350	026129
16	400	026130
18	450	026131

90° Elbow Sp x H

Dimension inches	Dimension mm	Product Code
1-1/2	40	026231
2	50	026232
3	75	026233
3 L	75 L	026230
4	100	026234
4 L	100 L	026070
6	150	026235
8	200	026236
10	250	026237
12	300	026238
14	350	026135
16	400	026136
18	450	026137

90° Elbow Sp x Sp

FOR USE WITH MJ GREY™

Dimension inches	Dimension mm	Product Code
8	200	226934
10	250	226908
12	300	226909

90° Reducing Elbow Closet Bend Reducing Sp x H

Dimension inches	Dimension mm	Product Code
4 x 3	100 x 75	026026

90° Reducing Elbow H x H

Dimension inches	Dimension mm	Product Code
4 x 3	100 x 75	026155