



## 2016 Product Launches.....Take a Look!

2016 is a milestone for Innovation at IPEX, as it was 15 years ago when IPEX made the commitment to new product development and formalized the creation of Business Development / Innovation. This past year also represents 9 years of employing and customizing the Stage

Gate process.

Reflecting on the year we are extremely proud to confirm 16 product launches, a record number of launches in a single year, and for moving a greater number of projects through a record number of Gates in the Stage Gate process. New

product introductions varied in size and scope. Admittedly some were small (i.e. individual fittings) while others were major initiatives that highlight the year (Large Diameter PVC and Large Diameter PVCOC). Regardless of size, the effort to properly navigate the project through

the process is always important and demanding. The term innovation projects novelty and newness and in 2016 we had our share of innovative new products as we introduced the AquaRise Transition Adapters, standard and hinged door PVC JBoxes in sizes new to the market, a LED

light fixture (retrofit kit and complete unit), a specially designed aeration device for force mains – the Vortex Force, and we supported the existing business in all segments with line extensions in System 636, industrial valves, PVC sewer pipe and electrical fittings. ■



## Project Overviews

### SGI-052: DK Series Valves

IPEX DK Series Dialock® Diaphragm Valves are the ideal solution for modulating flow and controlling dirty or abrasive fluids in a variety of applications. The modular nature of these valves results in many material, body style, and diaphragm options. IPEX worked in partnership with Aliaxis sister company FIP to private label the valves for the North American market and the valves components are assembled by IPEX for local markets. The re-designed weir-style body has significantly improved the DK's flow rate compared to the old design and it facilitates precise linear flow regulation through the valve's full range of operation. The new innovative and patented Dialock locking mechanism allows the manual hand-wheel to be adjusted and locked in over 300 positions.



### SGM-140: DR26 Heavy Wall Sewer

Installation practices in specific regions demanded a "heavy wall" product for PSM sewer pipe. In order to respond to regional market conditions, IPEX expanded its Enviro-Tite® line of products to include DR26 pipe in sizes 200mm to 300mm. This heavy wall sewer pipe is made at our St-Joseph plant using the same extrusion process as our other Enviro-Tite sewer products. This new product is made and certified to both CSA B182.2 and BNQ 3624-135. Extruded to the same outside diameter as DR35 Ring-Tite® and Enviro-Tite (PSM); this new product offers a minimum pipe stiffness of 790 kPa (115 psi).



### SGE-109: Brass Floor Box Covers

IPEX Electrical is now able to offer customers a new line of brass and nickel plated covers for their Scepter electrical round floor box. Floor boxes are installed in commercial buildings and the cover plates provide easy access to the enclosed power data and communications wiring. The covers also protect the wiring from daily environmental floor conditions such as floor mopping and foot traffic (UL approved for cover loading). Featuring a light lacquer finish for extra strength and durability in high traffic areas, the covers include a rubber gasket and aluminum backing plate to create a water-tight seal.



Brass and nickel plated covers are available in 3 styles to suit different applications: Duplex Receptacle with a Dual Flip Lid, Duplex Receptacle Cover with Individual Screw Plug Openings and a Combination 2" x 1/2" Single Screw Plug Opening.

### SGE-065: JBX/H Large Size JBoxes Canada & SGE-065: JBX/H Large Size & Hinged JBoxes USA

The popular JBox™ product line was expanded to offer 14" and 16" molded PVC junction boxes. These larger sizes of molded PVC junction boxes are an industry first as all competitive PVC options are fabricated and non-listed (i.e. UL and CSA). These new boxes can go beyond typical electrical conduit, making them suitable for some light industrial applications as control boxes and push button enclosures.



The hinged cover JBox will be specifically appealing to maintenance, repair and overhaul contractors, Industrial Automation Contractors, and Original Equipment Manufacturers.

Large boxes are available in 14"x14"x8", 14"x14"x10" and 16"x16"x10" configurations. Boxes feature both non-hinged and hinged covers which provide end-users with easier access and customizability. It maintains the same great features and benefits found on the non-hinged Jbox such as hand close fasteners tabs, and integrated gasket, amongst others.



### SGI-051: 1" Sch120 Pipe with a Double Bell

This product was developed specifically for one OEM customer in the USA who has developed their own specification for a new well drop pipe. In short order, Pharmacy was able to adapt their bell and gasket equipment and packaging specifications to meet the customer's unique demands. The bell on the pipe is double the normal length and has two different ID profiles, one that is later threaded by the OEM and the other used for alignment during installation. The customer has been impressed with the product and our development response issuing subsequent orders and requesting to expand the product offering.



### SGP-136 2-1/2" Long Sweep 90° System 636

With the expanding use of 2-1/2" in the Flue Gas Venting market, IPEX continues to add to the System 636 2-1/2" product offering. Previously, the only option available for a 90° elbow was a compact radius bend. IPEX developed the new long sweep fitting which minimizes friction loss and thus reducing the likelihood that the contractor will need to upsize the vent, saving them time and money.



### SGP-153 2-1/2" – 2" Appliance Adapter System 636

Many appliance manufacturers use 2" on their appliance intake and outlet yet permit 2-1/2" as a venting size. The appliance adapter is a unique fitting that allows the installer to upsize from 2" (spigot) to 2-1/2" (hub) directly at the appliance outlet. This fitting replaces a mix of bulky components required to create the same transition and eliminates the condensation pooling concerns of the multiple component assembly. The elongated 2" spigot gives adequate clearance from the appliance surface allowing easier installation and joint inspection.



### SGP-134 Xirtec® 1-1/2" & 2" Wyes

To improve our competitive position we elected to mold our own 1-1/2" and 2" PVC and CPVC pressure wye fittings rather than continue to purchase from a competitor. The engineering team used advanced mold flow analysis software and CAD modeling to improve the design of what is seemingly a simple fitting. The result is a superior fitting; higher pressure rating, certified to ASTM F1970, and an improved cost base.



### SGM-115-1 Large Diameter PVC (EDM)

In April, IPEX proudly extended its line of IPEX Centurion® and Ring-Tite product lines by introducing 54" and 60" pipe to the North American marketplace. A team effort through and through, IPEX continues to offer the most complete package of municipal products for our customers. These new larger diameters will allow us to continue servicing the irrigation, potash and sewer markets now and into the future. Our largest investment ever, the Edmonton PVC facility has been significantly upgraded with the new large diameter PVC line alone contributing close to \$3M of new product sales in 2016.



### SGE-145 2" DBII 5248 Push Fit Coupling

Responding to a specific customer request in Quebec, IPEX was able to provide the new coupling without the purchase of a new mold, instead investing in new cores/inserts to fit inside an existing mold. The new coupling is an extension of our Super Duct fittings offering which is molded at St-Jacques, alongside existing Super Duct polyethylene fittings. Certified to CSA C22.2 No 211.1, the project is another example of IPEX responding to, and supporting, customers' needs.



### SGM-115-2 Large Diameter PVCOC (EDM)

Subsequent to the launch of the large diameter PVC earlier in the year, the second part of the project came to fruition with the launch of large diameter PVCOC in December. With it, IPEX is now able to offer Bionax® in even larger diameters – 20 to 30". Since 2008 with the introduction of our first Bionax PVCOC line in St-Laurent, growing the product offering and brand as well as converting our PVC business to PVCOC has been a focus of municipal sales teams in Eastern Canada, British Columbia and the US. With our Edmonton facility now able to continue this momentum in both Canada and the US, IPEX is uniquely positioned to support and grow our municipal business while no competitor in North America is able to provide PVCOC products larger than 16".

### SGP-122 AquaRise® Threaded Adapter Fittings

To ensure the optimum long term performance of the AquaRise® system, the project team worked diligently to design and develop the new line of AquaRise Threaded Adapter Fittings. These adapters are used to transition from the AquaRise system to metallic threaded accessories or alternative materials. Available in male and female fitting configurations, these adapters use high-grade metallic alloy that provides a robust thread design and enables metal-to-metal threaded connections. The AquaRise Threaded Adapters are listed to CSA B137.6 and ASTM F1970. They also carry a potable water listing as per NSF/ANSI 61, and are certified as lead-free to NSF/ANSI 372.



### SGE133: INEXO® Divider

The INEXO® low voltage divider is an accessory which was created to be used with the INEXO ICF box line. IPEX created this product in response to requests from customers who wanted to install power and information wiring in the same box. In scenarios like this, with two different voltage sources in the same box, the building code demands that there is a partition to keep the wires separated. The new divider card meets the code requirements and is easy and intuitive to install.



### SGE-130: LED Sceptalight™

The lighting industry underwent a technological change with the introduction of LED lighting technology. LEDs provide greater energy savings, provide more lumens per watt and provide better quality light compared to traditional light sources. Unfortunately, LED bulbs should not be used in enclosed applications due to the heat generated and its negative effect on the overall life of the light source. IPEX's line of wet location luminaires, Sceptalight™, required a custom LED solution that would guarantee long life and exceptional lighting performance. After careful design considerations, the IPEX team developed a high performing LED light engine that easily retrofits onto existing light fixtures and is certified to the latest wet location luminaire and LED retrofit standards.

### SGM-86: Vortex Force™

The Vortex Force™ is a patented aeration device used in forcemains that eliminates odor and corrosion issues in concrete pipes. The Vortex Force increases the dissolved oxygen concentration by intensely mixing incoming sewage flow with air and reduces the needs for expensive chemical feed systems, biofilters, and other high maintenance solutions. This product can be used in applications such as wet wells and end of line forcemain applications. ■

## Baie-Comeau Leads The Way With Another Bionax First

In 2014 a new transmission waterline was needed to connect the two Quebec cities of Baie-Comeau and Hauterive to a new housing development. Just under a kilometer long, this project marked Baie-Comeau's first use of Bionax PVCOC, a molecularly enhanced PVC pipe. The project was unique for IPEX as it represented the first installation of 18" Bionax pipe. At the time, this was the largest diameter of PVCOC pipe available in North America. One of the driving factors for Baie-Comeau to specify Bionax PVCOC is its 33 percent thinner wall resulting in a wider interior diameter. Says Patrick Desautels of IPEX, "Bionax PVCOC was an economical choice because the engineers could save costs by specifying 18" rather than 20" diameter pipe for the job. If the engineers can go with 18", it will save the town a lot of money."



In August 2017, Patrick was excited to get the call from the contacting firm RG St-Laurent and make the 800 km drive to Baie-Comeau to see the first installation of 20" 235 and 165 psi Bionax PVCOC pipe as part of the latest residential development in the area. As with the 2014 installation, IPEX Sales Representative Patrick Desautels had been consulting with the municipality on how IPEX and Bionax PVCOC piping systems could save the community funds by downsizing the pipe needed for the 2.5 km transmission line. The town also appreciates the enhanced strength of the piping system, as the area developed is quite rocky. While the contracting partner, RG St-Laurent, enjoys the light-weight of Bionax as it is significantly easier to handle and work with vs traditional cast iron pipes.

This installation marks another first for IPEX in partnership with Baie-Comeau as the 20" 235 psi product is part of the 2016 Bionax line extension from our Edmonton Alberta manufacturing facility. ■

