

The Industrial Pipeline

IPEX Helps Put Canada on the Medical Research Map



Photo Credit:
MaRS Discovery
District's Website

Canada is a country full of well-educated and innovative citizens, yet its involvement in commercializing products and services in medical and related science research has been minimal compared to that of other industrialized nations. All around the world, facilities exist that foster corporate and individual ideas – providing the means and space to complete necessary production and testing. In the past, Canada has lost many qualified research personnel to other regions due to a lack of available facilities, and as a result has seen a bottleneck in the commercialization process.

The MaRS (formerly an acronym for Medical and Related Sciences) Discovery District in Toronto is Canada's answer to remain globally relevant in the race for innovation leadership. MaRS was first conceived in 2000 by business and community leaders as a solution to this problem. Its focus is on enhancing Canada's position in a highly competitive global economy. Specifically, it promotes collaboration between the communities of science, business and capital all in one location. The result? Phase I: the \$100-million, 15-storey Toronto Medical Discovery Tower,

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Zaro Dimitrov
Lead Mechanical Engineer of MaRS Project

complete with over 400,000 square feet of lab and office space. As impressive as the size of the building is the flexibility of the labs for its tenants. Not every lab is set up in the same manner and at times they need to be reconfigured. This can become extremely costly due to down time and construction costs. "MaRS allows for researchers to configure and reconfigure themselves in as little as two or three hours without having to tear anything down or bring in construction help."

Three Heads Are Better Than One

To ensure the highest quality facility and services available, the most qualified candidates in North America were hired to lead and oversee the development of the MaRS



A MaRS sink with an Enpure™ high purity faucet

building. This honor was bestowed upon the ABE Joint Venture, comprised of partners AMEC, Black & McDonald and EllisDon. All three are highly regarded in their respective industries and have impressive track records.

AMEC is an international project management and services company with worldwide expertise in both the pharmaceutical and healthcare industries. "AMEC subsequently won the contract to design and erect the laboratory space in what the construction industry has dubbed the biggest tenant fit-up of its kind in recent Canadian history."²

Black & McDonald Limited, a leading mechanical and electrical services provider in construction, utilities, maintenance and facility management operations, took the lead on the facilities management planning. Meanwhile, EllisDon, a major international firm providing services in project management, construction management, design-build, public/private partnerships and general contracting, erected the tower's shell.

Together, these three firms are again combining their expertise to build Phase II of MaRS in downtown Toronto's "Discovery District" located at College and Bay.

The IPEX Advantage

In the past, AMEC has worked successfully with IPEX Inc., North America's leader in thermoplastic piping systems. Through

these previous dealings, Zaro Dimitrov, Lead Mechanical Engineer on the MaRS project, contacted Mike Mercurio, IPEX Sales Representative for Industrial Piping Systems. Dimitrov was interested in using IPEX Xirtec® 140 PVC and Corzan® CPVC piping systems for various chemical process lines in the MaRS project. Upon meeting, Mercurio outlined the performance potential for thermoplastics in several additional



IPEX Enpure™ was used for high purity processing of water and reverse osmosis distribution system

applications within the building. Impressed with the breadth of IPEX's product lines, Dimitrov chose IPEX Enpure™ polypropylene pipe and fittings for the high purity processing of water and Reverse Osmosis distribution system; systems that totaled 350 faucets, 12,000 fittings and over 50,000 feet of pipe. IPEX's Enfield® and Labline® products were also chosen for corrosive waste drainage, with 30,000 fittings and 50,000 feet of pipe, close to 25% of which measured 4" in diameter or greater.

Like other materials in high-rise buildings, thermoplastic piping had design challenges and building code concerns. These concerns were addressed as a result of AMEC installing fire sprinklers throughout the facility and expansion joints for vertical runs of drainage



IPEX Labline® & Enpure™ systems being installed

piping. According to Dimitrov, "Plastics can do more than only low rise construction."

When asked why IPEX products were specified over its competitors, Dimitrov was confident in his answer: "IPEX offered an attitude that was above that of their competition. It really boils down to who you can work with."

Dimitrov's positive experience with IPEX began when Mercurio helped to overcome objections about the socket fusion joint system of Enpure by demonstrating the assembly process to all parties involved. At the same time, valuable jobsite training was provided to the installers.

Along with Mercurio's commitment to the project, IPEX engineers helped to develop specifications for the building's piping system. In addition, IPEX offered products that no other company could. "Beyond attitude, IPEX's Fusion System was a great advantage. The electrofusion system of Enfield lab drainage has an embedded coil which was also a major plus," Dimitrov said.

MaRS Puts Canada on the Map



MaRS is a not-for-profit corporation funded by real estate revenues, fundraising and fees for services. Upon the completion of Phase I in May 2005, MaRS initiated a tenancing strategy with over 50 organizations such as the Ontario Cancer Research Network, Claron Technology, RBC Tech Ventures and the University of Ottawa, all of whom, close to 2,000 employees, use the facility on a daily basis.

Phase II construction of this world-class facility has begun and by its anticipated completion date in 2008 will result in an additional 1,000,000 square feet of space. The total capital cost of the complex will be about \$450 million³ with a five year facility management contract being awarded to ABE Joint Venture.

Along with its laboratory and specialized research and business incubation facilities, MaRS Business Resource Centre provides expert resources and business tools to aid and accelerate the commercialization process. In addition, its Collaboration Centre is available to host educational networking events.

MaRS is a community in which scientists, entrepreneurs, business leaders and investors will come together to create a more efficient commercialization marketplace. In the field of medical research, MaRS has certainly helped put Canada on the map and IPEX is proud that their piping systems helped contribute to the success of the project.

^{1, 2, 3} "Lab of the future now open in Toronto", Gilles Uguen, Hospital News, June 2006.
<http://www.hospitalnews.com/modules/magazines/mag.asp>

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