CONCRETE PIPES AND MANHOLES
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When it comes to meeting market needs, the Langley Concrete Group is not a company that waits for the market place to tell them what is needed; instead they forecast market trends so they are ready when those needs arise. This attitude is evident in Langley’s flagship production facility in the city of Chilliwack, British Columbia. Because of a strong focus on efficient production, and top product quality, they have production methods versatility of all concrete products, The Langley Concrete Group is not only thinking ahead of the curve, but they are also driving right into the lead of Canadian and North American producers.

Langley’s owners, the Omelaniec family, had a vision of a company that would not just meet, but exceed the growing demands for concrete pipe and products in British Columbia, Canada’s most westerly province. This year Langley moved even further ahead by adding a new dry-cast system to increase the production efficiency of their large diameter pipes. This system, a HawkeyePedershaab Multicast SC 360, also excels at the production of lined pipe which Langley predicted would be a necessity in their market.

Of course, growth and expansion is a recurring part of the history of the Langley Concrete Group, reaching back to 1945 when company founder Jacob Omelaniec (the current owners Grandfather) began producing well liners in the city of Aldergrove, BC. The company almost immediately started growing and by 1947 had to expand into a new facility in Langley Prairie. The company continued to develop and expand over the next 45 years, being run by Jacob’s sons Sam and Mike Omelaniec.

From the mid-nineteen eighties to the mid nineties, the plant in Langley expanded four times.

In 1989 Langley Concrete purchased Pre-Con Products in Abbotsford and Lombard Pre-Cast on Vancouver Island. In 1992 Mike purchased Sam’s shares to allow him to retire.

Mike ran the company with his sons and over the next ten years the business grew exponentially, with the Langley location expanding four times in ten years. Plans were started in late 1999 to move to a new location and to build a plant combining their two older facilities with one that could supply the future demand of the British Columbian Mainland with a full range of pre-cast product for underground civil construction.

In 2003, before the new operation could be realized Mike unfortunately passed away, leaving control of Langley Concrete to his four sons Michael, Mark, Kevin, and Jason.
Along with the new system Langley also acquired new forms and appurtenances that were specifically designed to make the production of lined concrete pipes less time and labor consuming.

With Mark taking the role of company President and Kevin Vice President of manufacturing the family remained dedicated to continue on with the planned expansion, finalized the design and the financing to build the new plant.

The Chilliwack plant is housed in a concrete tilt up building that is over 100,000 square feet plus an extensive mezzanine area. The plant is fed with twin two cubic meter concrete mixers and overhead travelling buckets. The plant is on the banks of British Columbia’s mighty Fraser River. The operation is the culmination of years of industrious work and effort by three generations of the Omelaniec family. When the Chilliwack plant was being designed and engineered, management and workers teamed together to create a plant that would work with both the short and long term goals and production needs of the company. This was accomplished by keeping the plant’s systems and infrastructure ready for future innovation, expansion and equipment.

The addition of the new Hawkeye Pedershaab Multicast Station allows for a broader range of production while enabling greater labor efficiency. Combining the Multicast Central core vibration system with the plant’s existing Pedershaab 5000 plc controlled feeder system enhanced production values while saving capital investment. Machine operators are free to work on pallet and cage preparation and other work as the integrated system works harmoniously through the filling, compaction, and joint forming processes automatically.

The new vibration station has already been serving an important and unique purpose for Langley in the production of T-lock lined pipe for a large sanitary sewer project. Along with the new system Langley also acquired new forms and appurtenances that were specifically designed to make the production of lined concrete pipes less time and labor consuming.

The new Multicast vibration station joins the already large compliment of dry-cast machinery that was installed during the startup of the Chilliwack plant in 2006.

The impressive equipment line-up is highlighted by a Mastermatic RC160 with Full automation which produces concrete pipes from 12” – 48”diameter in lengths of up to 2.5m. This system can produce up to three pipes per machine cycle with a combined internal diameter of 48” or less.

The pipe machine works in synchronicity with a full product and ring handling system that removes the pipe and pallet from the Mastermatic and transports the product to...
a smooth operation, gear driven moving floor. The moving floor continues into a pre-curing chamber, to a set-ring ring removal station at which the fiberglass set-rings, which are placed to ensure the highest quality spigot, are removed robotically and returned to the operator’s station via automated chain belt.

From this point the moving floor continues into the main curing chamber where the product are gradually cured using steam in a controlled environment to accomplish the products desired next day strength. Upon exit of the curing chamber the pipe is removed from the moving floor by a robotic manipulator, the pallet is robotically removed and sent to an automated cleaning station. The pipe is placed on a finishing conveyor where it is tested, inspected, and additional finishing, such as deburring, automatic spigot measurement and product marking is performed as the pipe is transported out of the building and to Langley’s storage area.

Other machines in operation at the Chilliwack plant include a completely rebuilt, PLC controlled Pedershaab Maximatic Manhole system with auto-manipulator for removal of the product from the machine, as well as pallet automation. A System 2500 Special is used for the production of hog and cattle slats as well as grade rings, flat tops, panels and other specialty items as required. A Pedershaab Module Simplex is in place for additional pipe production, as well as a Pedershaab Fleximatic small diameter Pipe Machine that is capable of making concrete pipe from 6”-24” up to three per cycle, 4’ tall pipe.

Reinforcement for Langley’s pipe and pre-cast machinery comes from their automated cage making machinery, which utilizes a rear longitudinal feed system, where each longitudinal is straightened and cut before they are manually placed in the machine. As is evident from the previous descriptions, Langley Concrete group is moving forward, creating one of Western Canada’s largest and most automated pipe and precast operations and one of North America’s finest precast companies.

The road ahead looks promising for Langley Concrete. Next year Vancouver and British Columbia will host the 2010 Winter Olympics and in preparation infrastructure spending is strong.

Langley Concrete is also progressing in additional ways as Mark Omelianiec prepares to take on the role of Chairman of the American Concrete Pipe Association in 2010. The ACPA is an organization that works to insure that concrete pipe is recognized for its strengths and merits, providing education and engineering help to producers and specifiers alike. Mark is currently the Vice Chairman of the Association behind current Chairman John Finch of Cemex, and the Canadian Regional representative on the board.

The future seems bright for Langley Concrete, but that is surely because they have worked diligently to create their own future rather than waiting to see what the future holds for them.
HawkeyePedershaab is the world leader in providing innovative solutions to producers of concrete pipes and precast products. We pioneered and refined many of the machines that today have redefined productivity, flexibility, and performance. From simple machines to fully automated plants incorporating the latest in robotics, HawkeyePedershaab furnishes a total family of solutions with technology appropriate to the application. And it's all backed by a global network to efficiently bring products and services right to your plant.

We deliver solutions!