

Powering the People



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MANN ENGINEERING
A LEADER IN RENEWABLE STRATEGIES.

Solutions-oriented, Mann Engineering is a leader in renewable and sustainable strategies. From solar and geothermal to automation, design build, and monitoring, the full-service, multidisciplinary company offers unrivaled capability and innovative expertise in the energy management industry.

Founded in 1988 by founding Principal James Mann, the Toronto, Ontario-based firm focused strictly on building automation systems in a niche market. Prior to 2005, the company was relatively small, with three to five employees, rapid expansion soon began. Project Manager Lee Hodgkinson witnessed the evolution.

“We went from just building automation systems and small boiler retrofits to significant boiler retrofits, chiller retrofits, cooling tower retrofits, and installing every other energy saving strategies on HVAC systems,” he said. “Since 2005 we’ve been a company of 30 to 60 employees and very much at the front lines of energy efficient technologies.”

Driven by a value-laden, solutions-based approach that balances performance, sustainability





and energy conservation, Mann Engineering has maintained a steady stream of success by specializing in building automation systems, boiler retrofits and chillers retrofits. A unique consulting group, they supply technologies, engineering and construction services to commercial, institutional and industrial processes worldwide of various size and scope.

“We’re currently working on a multi-million dollar downtown Toronto Office Class-A retrofit,” Hodgkinson said. “That project involves one of the largest lighting retrofits in Canada, one of the most efficient chiller in-

stallations in Canada, a building automation system upgrade, installing variable frequency drives (VFD) and various other energy saving strategies. This type of project, even at the price tag of \$10 million will have a four-year payback and contribute to the building achieving LEED platinum certification.”

“Our typical job is about \$250,000 and it involves a chiller retrofit, a boiler retrofit as well as a building automation system component,” Hodgkinson continued. “We do jobs as small as \$3,000 to \$5,000 for energy audits. Depending on the building, the cost could be up to \$10,000.”

If it sounds pricey, it's definitely worth it. For those not too familiar with the importance of an energy audit, Hodgkinson explained it using practical and simpler terms.

“An energy audit is basically like going to a doctor for a checkup for your building,” he said. “It looks at the health of the building, the energy consumption of a building, the energy intensity of the building as well as identifies opportunities for improvement and quantifies those opportunities.”

A crucial component in a clients' energy management plan, the audit helps provide a clearer picture and path to future savings – considering both instantaneous energy consumption to the full lifecycle analysis.

“If you increase the lifecycle of a piece of equipment whether it's a light bulb, a boiler or a chiller, you're reducing the need to replace it, which means you're reducing the amount of resources that get drawn into the process,” Hogdkinson said. “From a life cycle perspective, we're actively pursuing technologies and strategies which reduce the lifecycle impact on global warming, resource development and resource depletion.”

RENEWABLE & RESPONSIBLE SOLUTIONS

A dedicated group of mechanical and electrical engineers, the team at Mann Engineering is constantly adapting to changes in the market, and taking a natural progression towards developing solutions consistent with their core principles of saving energy and reducing their environmental footprint. Currently, Mann Engineering is significantly expanding into the solar photovoltaic (SPV) market, a system which generates electricity from the sun.



HPG understands the customer comes first and therefore believes in a hands on approach in providing clients with solutions from various HVAC manufacturing partners.

With over 100 years of collective experience the staff at HPG is fully qualified in helping clients with their needs for cost effective trouble free service and system design.



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“We have over 10 megawatts in solar installations under development and we currently operate 250KW, 125KW, 10KW systems,” Hodgkinson said. “As we were developing these core competencies with solar photovoltaics it was natural that we’d get involved in solar thermal, which includes heating water and air through sun’s energy, so we’ve acted as engineer and constructor for several solar thermal projects as well.”

“With this understanding, we started expanding into geothermal field which involves using earth’s energy to compliment

the thermodynamic cycles which creates heat or cooling for a building.”

Like the automation systems they install, Mann Engineering has proven – time and again – they can adapt to changing conditions across the design, retrofit and construction of energy efficient buildings and geothermal projects.

“We’re always on the lookout for emerging technologies, products, new strategies and always trying to quantify the opportunity, take it to our clients, explain to them and

then help them implement it,” Hodgkinson said.

CONSTRUCT CANADA EXPO

A participating exhibitor at the 2014 Construct Canada Expo, Mann Engineering took the experience as a means to grow their influence, spread their message, and showcase their extensive domain knowledge.

“It’s not every day that you get to talk to 100 people that have problems that you know the answer to and they may not know the answer to,” Hodgkinson said.

“We’re a very solutions oriented company and when we talk to potential clients about the problems they have, we find that we can be very helpful to them because they’re not the only ones going through that problem,” he continued. “We’ve helped hundreds of buildings with that type of issue - whether it’s spending too much money on utilities or HVAC system failures or just operations and maintenance.”

When it comes to marketing, Mann Engineering relies on repeat customers as well as maintaining its customer-facing presence. In addition to the marketing benefits of trade

shows, Mann Engineering also takes every opportunity to elevate their industry standing through educational speeches and editorials.

“We also do speeches at various events for industry organizations, such as FRPO, ACMO and GTAA, which do fantastic work, as well as at the trade shows to promote education to promote ourselves. I’ve written several articles in industry magazines to complement the speeches that I’ve done.”

CHAMPIONS OF SUSTAINABILITY

Experts in getting incentives from various levels of government and utility companies for energy efficient work in the form of rebates of up to 50% of project costs, Mann Engineering’s involvement in these programs ensures peace of mind for their clients and a new avenue of business for the company itself.

“A lot of our clients don’t know about this,” Hodgkinson said. “A lot of the market doesn’t know about these opportunities.”

“By using a qualified and expert company to



handle these applications, you'll reduce the possibility of there being any problems with it," he continued. "It's not uncommon for incentive program administrators to question calculations, methodologies, measures and verifications plan, the only way to get through that properly is using the best and using the experienced."

Maintaining the assets and applications of their wide client base, Mann Engineering prides itself on providing innovative technology that is new to the market.

"We're really advancing the field of co-generation systems for buildings," Hodgkinson said. "This is where a building will burn natural gas itself to produce its own electricity rather than taking electricity from the grid. The process is relatively efficient and there are significant cost savings as natural gas is significantly cheaper than electricity in Ontario."

"Furthermore, that process creates waste heat, which can then be used for other areas of the building," he continued. "This type of work can have a five-year payback, as well as,

significantly make the client energy independent. Rather than watching the utility rates rise, you can control your own utility costs.”

WHAT'S NEXT?

Defined by Hodgkinson as being a merit-based company, Mann Engineering generously dedicates plenty of time towards internal growth with an eye on the next chapter in an always-evolving industry.

“Improving the overall productivity of the company makes everyone’s life better and more profitable,” he said. “We actively work to train our employees to become energy experts and engineering experts, we try very hard to train all of our employees to give them the opportunity to learn on a day to day basis.”

Building strong relationships has not been just for their employees. Hodgkinson understands how importance it is to recognize, adapt and improve on existing standards and reach.

“As a company we’ve been around for 25 years and you don’t last that long without identifying customers with similar goals, whether it’s: financial saving, reducing maintenance or easing operations, we work very closely with them so they can trust you,” he



said. “In this industry, it comes back to trust. We try and treat our customers like gold, cause without them, we wouldn’t be here.”

“We’re looking to increase our presence in Ottawa, Hamilton, and London, Ontario. We’re considering expanding to British Columbia also,” Hodgkinson said. “We’re always looking for new technologies, new partners and new clients.”

With a niche area of expertise and a focus on improving and solidifying their relationships with core clients, Mann Engineering will be providing power to the people for generations to come.



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