

Almag Aluminum — Energy Efficiency





ABOUT ALMAG ALUMINUM

Since its beginnings in 1953, Almag Aluminum Inc. has grown from a 1,300 square foot door grille manufacturer into a 177,176-plus square foot facility serving a global cliental with its four extrusion presses. A "solutions provider," Almag uses innovative ideas and applications to produce cutting-edge aluminum extrusions and offers an extensive range of value-added services including design assistance and fabrication and finishing.

(left) Improved lighting quality has had a positive effect on employee comfort and has increased visibility on the shop floor.

LOCATION

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ENERGY EFFICIENCY – LIGHTING RETROFIT

A registrant with the Canadian Industry Program for Energy Conservation, Almag is committed to making energy-saving improvements at its production facility and offices. One of its largest projects was a 142,000 square foot lighting retrofit, which was driven by the need to improve lighting for quality control inspections and the comfort level of Almag employees.



Changing from a metal halide to a T8 lighting system significantly improved lighting quality at Almag's Brampton facility, enabling better quality control and lighting between aisles.





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"Our lighting retrofit has lead Almag to improve other areas of our operations and processes, enabling us to have a greater environmental impact."

Wilfred Picardo, Project Manager

Over 15 years ago, the company replaced its high-pressure sodium lighting with a metal halide system in an effort to increase lighting quality. The change resulted in better colour properties, but there was still a spot effect that was less than ideal. Building on what it learned from that project, Almag secured funding assistance from Natural Resources Canada and Hydro One Brampton for its most recent upgrade. The company followed its successful audit and test phase by replacing over 300 metal halide lighting fixtures with 1,800 T8 high ballast lamps on its shop floor. At the same time, Almag completed an expansion to join two buildings and was able to install multiple switches in that area to reduce lighting during times of low activity.

The project took only one month to complete and has resulted in considerable costs savings for the facility. Lighting quality improved significantly thanks to a 30 per cent increase in light lumens over the metal halide system. Savings per fixture amounted to 244 Watts, while the annual energy cost savings were nearly \$43,000. The project, which totaled \$87,363, has already paid for itself in a short 1.36 years and has resulted in a cooler workplace during summer months.



The 142,000 square foot lighting retrofit has reduced energy consumption by 244 Watts per fixture, resulting in an annual energy cost savings of nearly \$43,000.

Overall the project not only saved money but improved the quality of the work atmosphere and had a positive environmental impact by reducing the facility's load on the electricity grid. Almag Aluminum Inc. continues to look for ways to improve its facility and its processes as part of its on-going efforts to work smarter and cleaner.





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