

# Colorama Dyeing and Finishing Inc.

*“We at Colorama knew that we could not continue operating as in the past. We were wasting too many precious resources, water, natural gas, dyes and chemicals. An energy and water analysis pointed us in the right direction and then the retrofit helped ensure action. As well, with the introduction of NAFTA it became more pressing to attain the same level of sophistication as our American competitors.”*

Shalom katz  
Director of Operations – Colorama



Colorama Dyeing and Finishing plant in Hawkesbury.

## THE COMPANY

Colorama Dyeing and Finishing Inc. is located in Hawkesbury. A privately owned Canadian company, it specializes in commission dyeing and finishing of knitted piece goods. Like many companies in the industry, Colorama had used equipment based on 1970s technologies.

In 1992, the company realized it needed to upgrade its operations to become more efficient. It risked lagging behind Canadian and overseas competition. Also, Colorama did not have a tubular finishing line to complement its open-width line, thereby leaving itself open to seasonal layoffs of employees.

## THE CHALLENGE

Colorama asked the ministry to analyze company operations and identify opportunities for reducing water and energy use. Based on the report's findings, Colorama designed a vastly improved operation using state of the art equipment.

The new design included efficient, environmentally sound boilers; increased tankage to hold hot water for reuse and transfer of heat; replacement of dyeing equipment; and the installation of high-speed drying equipment. An integrated tubular finishing line would give the company

versatility in production, enabling it to reduce seasonal fluctuations in demand for open-width goods and giving its 65 employees increased job security.

## OPPORTUNITIES

Colorama felt that the changes it was contemplating would lead to the following improvements:

- \* reduced use of water and energy;
- \* reduced use of dyes;
- \* reduced use of chemicals to treat the water used;
- \* improved quality of effluent;
- \* improved productivity;
- \* lower operating costs.

## ACTION TAKEN

The company has spent more than \$2 million dollars to complete its retrofit. Among the equipment it purchased are:

- \* two 300 HP Miura boilers;
- \* two 6-Port Gaston County Aqualuft high pressure dyeing machines;

- \* one 1-port Thies high pressure dyeing machine;
- \* one 3-zone gas fired multi-pane low energy consuming dryer (suitable for both open and tubular goods);
- \* tank capacity for hot water storage;
- \* a double pad hydro extractor for chemical applications with an automated detwisting device;
- \* a fully automated shrinkage control compactor for 100 percent cotton fabric.

## RESULTS

Colorama has benefited in several ways from the upgrading of its operations. Water consumption is down by 40 per cent and natural gas use has been reduced by 20 per cent. The company is using 15 per cent less dyes and chemicals.

Overall, Colorama has lowered its operating costs by 25 per cent while increasing its production by 30 per cent. This improved performance has enabled the company to employ more people, with 10 full-time and four part-time staff coming aboard.

## REPLICATION OPPORTUNITIES

Colorama retrofitted its entire operation. All or part of the environmental and cost savings similar to those detailed may be realized by companies that use boilers and/or dye house equipment. This includes dry cleaners and laundromats.

## PARTNERSHIP IN POLLUTION PREVENTION AND RESOURCE CONSERVATION

Industrial companies located in Ontario may seek ministry / industry services that will help them to:

- \* reduce, reuse and recycle solid waste;
- \* reduce or eliminate liquid effluent and gaseous emissions;
- \* use energy and water more efficiently.

Equipment and services supply companies can benefit from the information provided on technologies identified for business development.



*A double pad hydro extractor.*

## FOR FURTHER INFORMATION, PLEASE CONTACT:

Shalom Katz  
Director of Operations  
Colorama Dyeing and Finishing Inc.  
1400 Aberdeen St.  
Hawkesbury, Ontario  
K6A 1K7  
Tel: (613) 632-0774  
Fax: (613) 632-0234

Tom Markowitz  
Industry Conservation Branch  
Ministry of the Environment  
2 St. Clair Ave. W., 14th floor  
Toronto, Ontario M4V 1L5  
Tel: (416) 327-1443  
Fax: (416) 327-1261  
E-mail: markowto@ene.gov.on.ca

## MINISTRY OF THE ENVIRONMENT SERVICES

For information on Ministry of the Environment assistance to industry, please contact the Industry Conservation Branch at (416) 327-1492, Fax (416) 327-1261.

For more project profiles and other publications, visit the ministry's website at <http://www.ene.gov.on.ca>

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Télécopieur : 416 327-1261.*

