



Mach OCC Disc Screen (inset: Mach Ballistic Separator).

Double or Nothing

Machinex doubles recycling capacity at Quebec facility

by Karine Moreau

Since the beginning of operations last spring, the Machinex sorting center for Quebec City has been significantly modernized in order to meet growing volumes of material processed at the plant. This growth can be attributed to the addition of industrial, commercial and institutional (IC&I) waste collection and the need to obtain an increased quality of commodities.

A close collaboration of stakeholders for the city, the facility operator, Société VIA, and the equipment manufacturer, Machinex, has allowed for the implementation of an optimal sorting array.

“We are very pleased with the offer made by Machinex and with their support all along the way,” says Stephan Bugay, Director of Residual Materials Management of Public Works for the city.

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“This new service will divert 25,000 tonnes of incineration within three years.”



The system receives 60,000 tonne of waste per year, treats 35 tonnes per hour, and produces high-quality materials.

According to David Marcouiller, Project Director at Machinex, the first phase of modernization for this system has allowed the city to double the capacity and effectiveness of the sorting center.



Rearview of the Mach Ballistic separator.



The Mach One News Separators



Fiber quality control.

“The mechanical separation has been increased and the quality is now greatly improved,” explains Bugay. “We now have a modern material recovery facility (MRF) with which one can get a better price for the commodities.”

The more efficient equipment can be used to process more material and also accept new materials, such as plastic #6 and plastic film.

System upgrade

During the first steps of mechanical sorting, glass is removed with the OCC Disc Screen Separator and the Scalping Screen, preventing premature wear of equipment by glass attrition. Other features included are: a feeding drum that allows the sorting line to have a constant material flow, a bag opener (as an aspiration system that enables the acceptance of plastic film and materials in plastics bags), disc screen separators to recycle newsprint, as well as pre-sorting stations and quality control.

Also, a MACH Ballistic Separator is located toward the end of the system and has reduced rejection rates while increasing fibre material recovery.

Quebec City is planning a second phase, within three years, for the addition of optical sorting machines to optimize the containers line.

These investments will meet the expectations of the province’s environment ministry and the Quebec Policy on Waste Management and offer an identical service to citizens and businesses.

Free IC&I collection

Quebec City has offered free collection of recyclable materials to the IC&I sector since June 2014. This new service will divert 25,000 tonnes of incineration within three years.

“We’ve asked citizens to recover for several years and it is now up to the IC&I to do its part,” says Steve Verret, Executive Committee Member Responsible for Environmental Issues. “Before offering this collection, it was necessary to ensure that our sorting center can receive these materials. This is now possible thanks to the upgrades that were made to the system this spring?”

Accepted materials are the same as in the residential collection, including paper, cardboard, glass, metal, plastic, and multilayer containers (e.g., pints of milk, juice, etc.). The Quebec City has established a team to advise on the best practices and facilities for IC&I sorting and collection. The consulting services of the team are free while the containers in which the recyclable material is collected will have to be funded.

The majority of IC&I entities pay for waste collection and disposal by the tonne. Savings are possible for many of them if they participate in the collection of recyclable materials, as this decreases the volume of residual waste produced.

To date, over 900 companies are listed in the program — a fact with which city officials are pleased. 

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