



# SOLENO

Mastering Storm Water

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**DEVELOPER**  
OF SUSTAINABLE SOLUTIONS  
FOR MASTERING STORM WATER

## INSTALLATION OF A CDS CONTINUOUS DEFLECTION HYDRODYNAMIC SEPARATOR IN ST-BRUNO, QUEBEC

**Storm water treatment: a high-performance and compact solution which exceeds the environmental requirements.**

As part of the construction of a new industrial building for the manufacturer Wetstyle Inc., the contractor Transport Raynald Boulay et Fils Inc. had to install storm water treatment system, in compliance with the requirements of the Quebec Environment Ministry (Ministère de l'Environnement et de la Lutte contre les changements climatiques or MELCC). Supported by the expertise of Soleno, the manager of Transport Raynald Boulay et Fils Inc., Jean-Hugues Péroquin, has chosen to trust the CDS continuous deflection hydrodynamic separator which offers many benefits.

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## THE CONTEXT

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Mandated as consulting engineers for the execution of this project, the design team of Les Consultants G.P.S. Inc. had to present an effective solution for storm water treatment. Several options could have been considered for the development of this industrial lot, but they would have created more constraints for the surface development and the installation of a treatment system. The use of a hydrodynamic separator approved by the MELCC and meeting the 9.48 l/s (0.335 ft<sup>3</sup>/s) flow quality of the project was the most beneficial option.

This project being subject to Section 22 of the *Law on the quality of the Environment* (LQE), applied by the MELCC, the processing unit retained needed to be able to treat and eliminate 60% of the suspended solids, oils and floating debris contained in the runoff water, before its discharge to an outlet. After reviewing the plans and specifications, Jean-Hugues Péloquin recommended the use of the CDS continuous deflection hydrodynamic separator, rather than the competing hydrodynamic separator originally specified. Exchanges with the engineering firm were necessary in order to approve the CDS treatment system as an equivalent to the plans and specifications.

## THE SOLUTION

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The contractor Transport Raynald Boulay et Fils Inc. therefore opted for the installation of a 1500 mm (60 in) diameter CDS continuous deflection hydrodynamic separator (model CDS-5), which has a higher approved flow quality than the competing systems, for an equivalent diameter. Therefore, in August 2018, under the supervision of Shon Gilmore, Project Manager, the contractor proceeded with the installation of the treatment system, a device similar to a traditional concrete manhole.

## THE BENEFITS

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The CDS hydrodynamic separator is the most effective solution to meet the treatment flow rate of 9.48 l/s (0.335 ft<sup>3</sup>/s) specified in the plans and specifications, while also being the most compact on the market, both in diameter and height. With a diameter of 1500 mm (60 in), the CDS-5 has a maximum treatment flow of 14.3 l/s (0.5 ft<sup>3</sup>/s) while at equal flow, the competing system initially specified had to have a minimum diameter of 1800 mm (72 in). Therefore, the installation of a CDS-5 allowed the contractor to make cost savings by reducing the footprint, the unit size as well as excavation requirements.

The CDS continuous deflection hydrodynamic separator is the best performing treatment system, based on MELCC evaluation criteria. It allows you to effectively control and treat more than 60% of the suspended solids, oils and floating debris contained in the runoff water, before its discharge to an outlet. It effectively removes 100% of floating and neutrally buoyant debris over 2.4 mm in diameter and recovers oil. The unique design of its separation screen prevents any risk of clogging and provide for easy maintenance. Simply put, the CDS continuous deflection hydrodynamic separator is the most efficient solution and allows for substantial savings in the short and long term.



The realization of this project was made possible thanks to: the contractor [Transport Raynald Boulay et Fils inc.](#) and the distributor [Wolseley Sainte-Julie.](#)

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