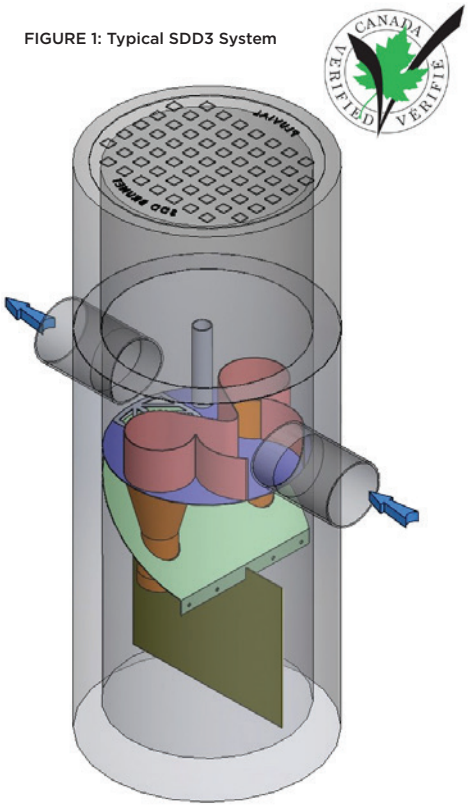
SDD3 Oil Grit Separator

An innovative storm water treatment system that provides extraordinary and dependable removal of storm water pollutants while minimizing washouts.

The SDD3 by NEXT Stormwater Solutions is a hydrodynamic oil and grit separator that utilizes both gravitational and centrifugal forces to capture and retain suspended sediments, floating particles and oils from stormwater runoff. The SDD3 unique design ensures optimal storm water treatment during light and heavy rainfall events.

FIGURE 1: Typical SDD3 System



FEATURES & ADVANTAGES

- **Double vortex system** specially designed to maximize separation of sediments and other pollutants from stormwater runoff
- **Designed and manufactured in Canada** and verified by an independent third party laboratory
- The environmental performance claim for **SDD3 is verified by the Canadian ETV Program**[1]
- SDD3 provides **91% oil removal and retention**[2]
- SDD3 is suitable for both **online and offline installations** and has shown to have a negligible effect on the hydraulic grade line (HGL)
- SDD3 is available in a **wide range of models** to meet the project requirements
- **Simple installation** for it is similar to a conventional manhole
- **Safe and easy inspection and maintenance** for all activities are performed at the surface

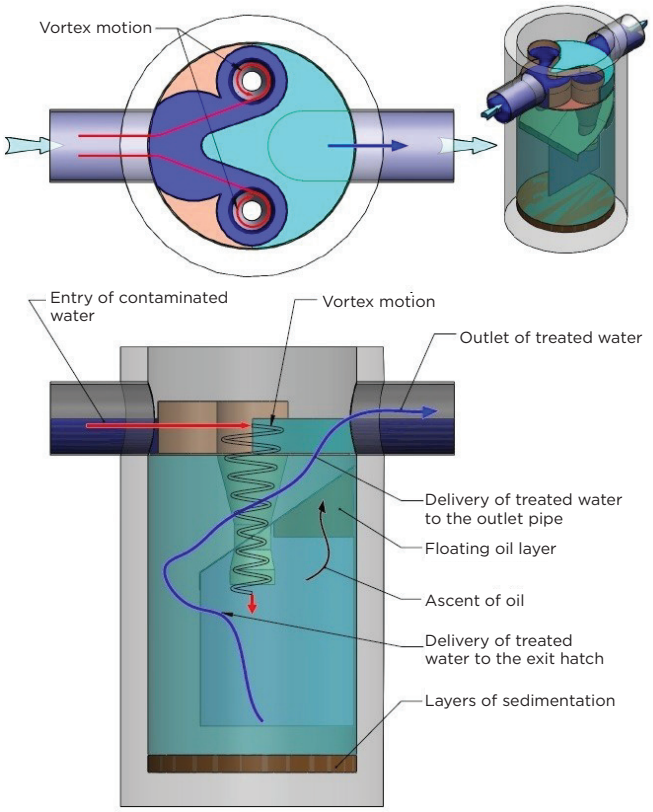
Components

The SDD3 external structure is a reinforced concrete chamber that is suitable for HS-20 and CL-625 loads.

The internal components are made of high quality aluminum that have excellent mechanical properties and superior corrosion resistance.

[1]Canadien Environmental Technology Verification Program; [2]According to the most recent ETV protocol « Light Liquid Retention Simulation Test» (CETV 2018-09-0001)

FIGURE 2: SDD3 Operation



How it works

1. Untreated storm water enters the SDD3 unit through the inlet pipe
2. The storm water flow is directed and distributed by the double vortex device
3. Gravitational and hydrodynamic forces created by the double vortex device separate the suspended particles from the stormwater and settle them at the bottom of the unit.
4. Hydrodynamic and buoyancy forces concentrate and separate the oils and the floatable materials, which naturally rise and are trapped in the oil storage area.
5. Treated storm water is finally discharged through the outlet pipe.

Installation and Maintenance

- The SDD3 installation is easy and similar to a conventional manhole installation. SDD3 may be installed online or offline depending on the project requirements. The inlet and outlet pipe are located at the same elevation facilitating an easier installation process
- The inspection and maintenance is simple and easy, with no need to enter the unit

SIZING AND DESIGN

The SDD3 can be sized to meet project-specific stormwater requirements. The actual model selection will depend on the treatment flow, particle size distribution and local regulations.

SDD3 Models and Standard Capacities

SDD3 Model	Diameter	Height from invert to SDD3 floor	Sediment storage capacity*	Oil Storage capacity
	mm	m	m^3	m^3
SDD3-900	915	1.39	0.51	0.12
SDD3-1200	1220	1.74	0.96	0.28
SDD3-1600	1600	2.06	1.77	0.65
SDD3-1800	1830	2.36	2.66	0.98
SDD3-2100	2130	2.79	3.94	1.55
SDD3-2400	2440	3.15	6.54	2.33
SDD3-3000	3048	3.47	9.84	4.54
SDD3-3200	3200	3.69	12.03	4.54
SDD3-3600	3660	3.95	12.39	7.87
SDD3-4000	4052	3.972	16.11	7.87

*Storage capacity can be adjusted according to the specific project requirements.