CDS®
Hydrodynamic Separator
Contech is the leader in stormwater management solutions, helping engineers, contractors and owners with infrastructure and land development projects throughout North America.

With our responsive team of stormwater experts, local regulatory expertise and flexible solutions, Contech is the trusted partner you can count on for stormwater management solutions.

STORMWATER CONSULTANT
It’s my job to recommend the best solution to meet permitting requirements.

STORMWATER DESIGN ENGINEER
I work with consultants to design the best approved solution to meet your project’s needs.

REGULATORY MANAGER
I understand the local stormwater regulations and what solutions will be approved.

SALES ENGINEER
I make sure our solutions meet the needs of the contractor during construction.

Contech is your partner in stormwater management solutions
Unique screening technology for stormwater runoff – CDS®

The CDS hydrodynamic separator uses swirl concentration and continuous deflective separation to screen, separate and trap trash, debris, sediment, and hydrocarbons from stormwater runoff.

At the heart of the CDS system is a unique screening technology used to capture and retain trash and debris. The screen face is louvered so that it is smooth in the downstream direction. The effect created is called “Continuous Deflective Separation.” The power of the incoming flow is harnessed to continually shear debris off the screen and to direct trash and sediment toward the center of the separation cylinder. This results in a screen that is self-cleaning and provides 100% removal of floatables and neutrally buoyant material debris 4.7 mm or larger, without blinding.

CDS is used to meet trash Total Maximum Daily Load (TMDL) requirements, for stormwater quality control, inlet and outlet pollution control, and as pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and a variety of green infrastructure practices.
CDS® Features and Benefits

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<thead>
<tr>
<th>FEATURE</th>
<th>BENEFIT</th>
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<tr>
<td>Captures and retains 100% of floatables and</td>
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<td>neutrally buoyant debris 4.7mm or larger</td>
<td>Superior pollutant removal</td>
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<td>Self-cleaning screen</td>
<td>Ease of maintenance</td>
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<td>Isolated storage sump eliminates scour</td>
<td>Excellent pollutant retention</td>
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<td>potential</td>
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<td>Internal bypass</td>
<td>Eliminates the need for</td>
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<td>additional structures</td>
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<td>Multiple pipe inlets and 90-180° angles</td>
<td>Design flexibility</td>
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<td>Clear access to sump and stored pollutants</td>
<td>Fast, easy maintenance</td>
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The CDS® Screen

A fundamentally different approach to trash control ...

Traditional approaches to trash control typically involve “direct screening” that can easily become clogged, as trash is pinned to the screen as water passes through. Clogged screens can lead to flooding as water backs up. The design of the CDS screen is fundamentally different. Flow is introduced to the screen face which is louvered so that it is smooth in the downstream direction. The effect created is called “Continuous Deflective Separation.” The power of the incoming flow is harnessed to continually shear debris off the screen and to direct trash and sediment toward the center of the separation cylinder.
CDS® Design Configuration

Why use traditional stormwater design when ONE system can do it all ...

The CDS effectively treats stormwater runoff while reducing the number of structures on your site. Inline, offline, grate inlet, and drop inlet configurations available. Internal and external peak bypass options also available.

A Traditional Stormwater Treatment Site Design would require several structures on your site. With CDS, one system can do it all!

CDS® Advantages

- Grate inlet option available
- Internal bypass weir
- Accepts multiple inlets at a variety of angles
- Advanced hydrodynamic separator
- Captures and retains 100% of floatables and neutrally buoyant debris 4.7 mm or larger
- Indirect screening capability keeps screen from clogging
- Retention of all captured pollutants, even at high flows
- Performance verified by NJCAT, WA Ecology, and ETV Canada

Learn More:
www.ContechES.com/cds
CDS® Applications

CDS is commonly used in the following stormwater applications:

• Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
• Urban retrofit and redevelopment
• Inlet and outlet protection
• Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and Low Impact Development designs

CDS has been verified by some of the most stringent stormwater technology evaluation organizations in North America, including:

• Washington State Department of Ecology (GULD) - Pretreatment
• New Jersey Department of Environmental Protection (NJ DEP)
• Canadian Environmental Technology Verification (ETV)
• California Statewide Trash Amendments Full Capture System Certified*

Select CDS® Certifications and Verifications

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• Canadian Environmental Technology Verification (ETV)
• California Statewide Trash Amendments Full Capture System Certified*

*The CDS System has been certified by the California State Water Resources Control Board as a Full Capture System provided that it is sized to treat the peak flow rate from the region specific 1-year, 1-hour design storm, or the peak flow capacity of the corresponding storm drain, whichever is less.
CDS® Maintenance

Select a cost-effective and easy-to-access treatment system ...

Systems vary in their maintenance needs, and the selection of a cost-effective and easy-to-access treatment system can mean a huge difference in maintenance expenses for years to come.

A CDS unit is designed to minimize maintenance and make it as easy and inexpensive as possible to keep our systems working properly.

INSPECTION

Inspection is the key to effective maintenance. Pollutant deposition and transport may vary from year to year and site to site. Semi-annual inspections will help ensure that the system is cleaned out at the appropriate time. Inspections should be performed more frequently where site conditions may cause rapid accumulation of pollutants.

RECOMMENDATIONS FOR CDS MAINTENANCE

The recommended cleanout of solids within the CDS unit’s sump should occur at 75% of the sump capacity. Access to the CDS unit is typically achieved through two manhole access covers – one allows inspection and cleanout of the separation chamber and sump, and another allows inspection and cleanout of sediment captured and retained behind the screen. A vacuum truck is recommended for cleanout of the CDS unit and can be easily accomplished in less than 30 minutes for most installations.

HDS Product Design Worksheets

Our in-house team of engineers can support you through the entire permitting process - and the first step is sending us your project information by filling out one of the Project Design Worksheets. We will forward your information to an in-house engineer who will contact you with specific recommendations for your project.

The free tool is available at www.ContechES.com/pdw-treatment
Few companies offer the wide range of high-quality stormwater resources you can find with us — state-of-the-art products, decades of expertise, and all the maintenance support you need to operate your system cost-effectively.

THE CONTECH WAY
Contech® Engineered Solutions provides innovative, cost-effective site solutions to engineers, contractors, and developers on projects across North America. Our portfolio includes bridges, drainage, erosion control, retaining wall, sanitary sewer and stormwater management products.

TAKE THE NEXT STEP
For more information: www.ContechES.com

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