



# Debris Separating Baffle Box



# The experts you need to solve your stormwater challenges



**Contech is the leader in stormwater 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.

## Your Contech Team



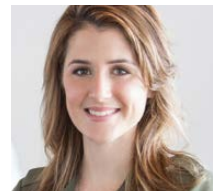
### **STORMWATER CONSULTANT**

*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**



## Debris Separating Baffle Box (DSBB) - An Advanced Stormwater Treatment Solution

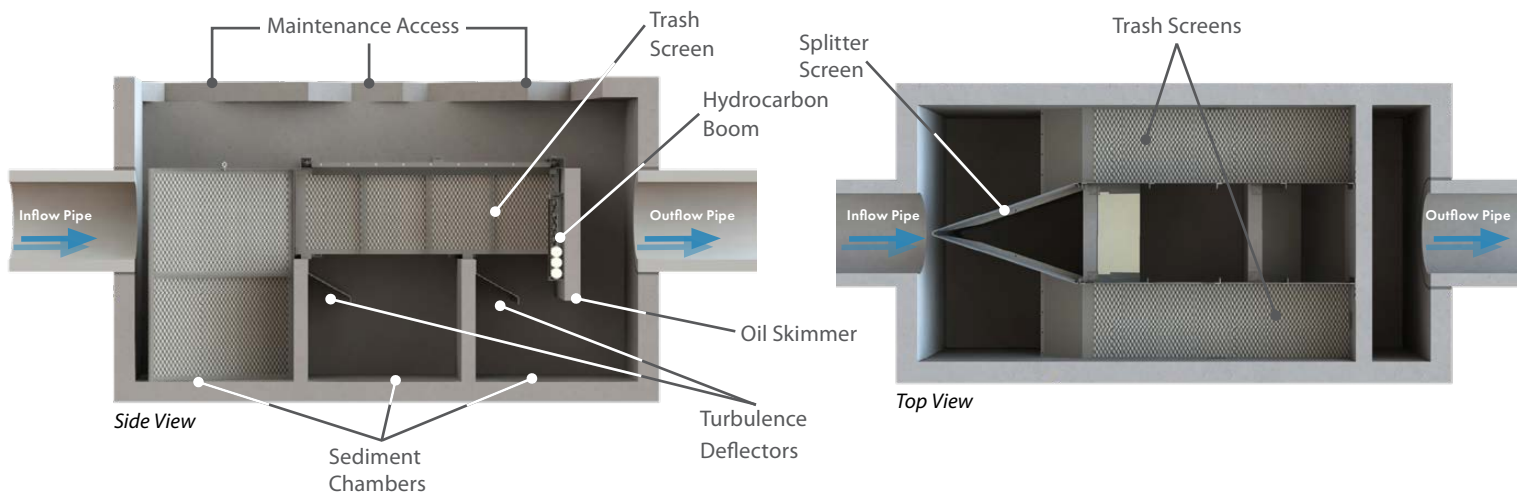
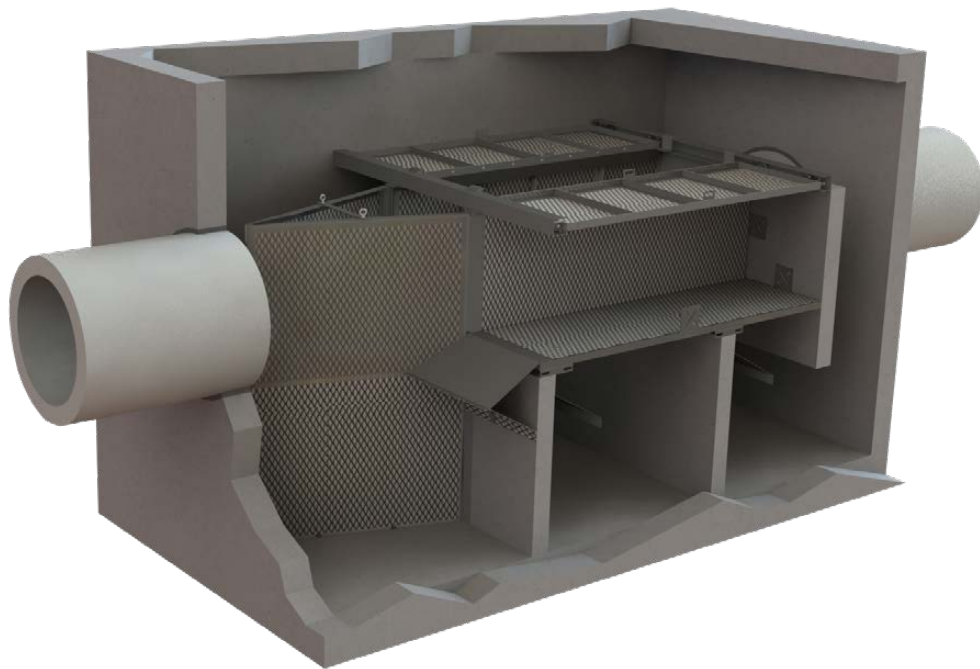
*NJCAT Verified, NJDEP Certified,  
and Full Capture Approved by the  
California Water Resources Control  
Board.*

The DSBB combines gravity separation and non-blocking screen technology to capture trash, sediment, and hydrocarbons from stormwater.

The DSBB captures and retains 100% of trash and debris equal to or greater than 5 mm in diameter and meets the California Regional Water Quality Control Board Full Capture Certification Requirements. Floating trash and debris are stored above the static water level where it can dry out between storms and can be easily removed during maintenance events.

With internal high-flow bypass, shallow vault design, and multiple sizes, it is the ideal product for sites with groundwater, utility, or bedrock constraints.

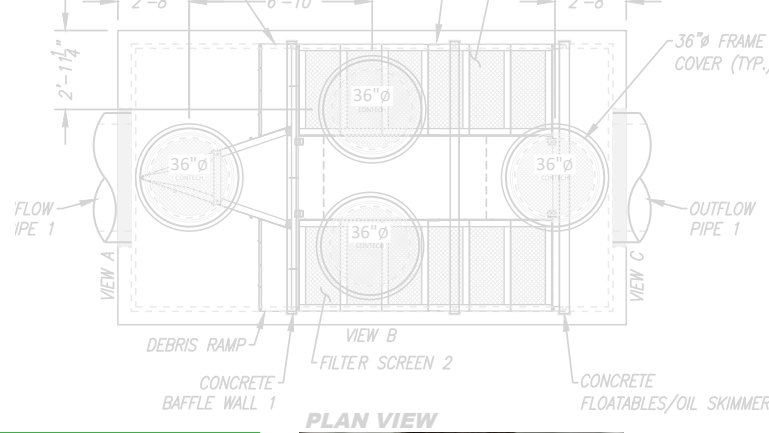
# How the DSBB Works



1. As runoff enters the vault, the splitter screen directs flows to the trash screens located along the sides of the vault while allowing high-flows to bypass through the center.
2. The trash screens collect and store trash, debris, organics, and oxygen demanding substances above the standing water.
3. The turbulence deflectors located below the screens prevent the resuspension of captured pollutants.
4. Sediment is collected in the sediment chambers, maximizing TSS removal and minimizing scouring during extreme flow rates.
5. The skimmer and boom collect hydrocarbons and control flow velocity which improves removal efficiency.

**Triple-chambered design provides higher removals of pollutants**

# DSBB Features and Benefits



FEATURE	BENEFIT
Dual-stage treatment system - separation and screening	Superior pollutant removal
Trash and debris stored above water	Easier maintenance while minimizing nutrient leaching, bacterial growth, and bad odors
Unimpeded high-flow path	In-line installation, eliminating the need for a diversion structure
Oil skimmer and optional hydrocarbon booms	Superior hydrocarbon capture
Turbulence deflectors	Minimizes scour, especially during high flows

**APPLICATION TIPS**

- Look for systems that provide higher loading rates to reduce size and costs.
- Pretreating detention, infiltration, and green infrastructure practices with a hydrodynamic separator can protect downstream structures and provide for easy maintenance.

## DSBB System Sizing

MODEL #	MAX PIPE DIAMETER (IN)	PEAK TREATMENT FLOW RATES (CFS)			
		100% TRASH CAPTURE 5 MM <sup>1</sup>	80% TSS REMOVAL (231 μm d50) <sup>2</sup>	80% TSS REMOVAL (126 μm d50) <sup>3</sup>	50% TSS REMOVAL (75 μm d50) <sup>4</sup>
DSDB-5-10	30	30.25	6.45	3.60	4.40
DSDB-6-12	36	34.78	9.28	5.18	6.34
DSDB-8-14	48	49.21	14.44	8.06	9.86
DSDB-8-16	48	53.00	16.51	9.21	11.26
DSDB-10-18	60	94.96	23.21	12.96	15.84
DSDB-10-20	60	99.10	25.79	14.40	17.60
Hydraulic Loading Rate (gpm/sf)			57.88	32.31	39.50
Hydraulic Loading Rate (cfs/sf)			0.129	0.072	0.088

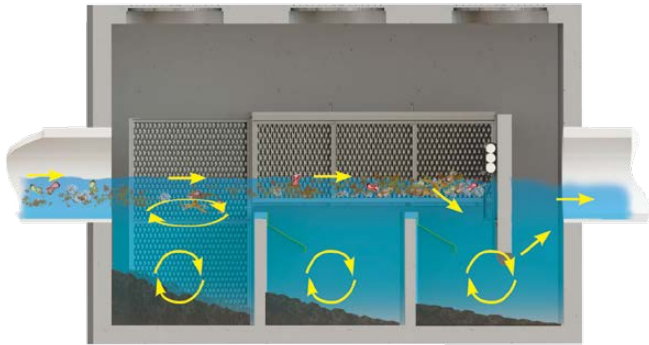
1. Based on California Water Board Full Capture Trash Requirements.  
 2. 3rd party independent laboratory results utilizing a modified NJDEP HDS protocol.  
 3. 3rd party independent laboratory results utilizing the NJDEP protocol. NJCAT Verified.  
 4. 3rd party independent laboratory results utilizing the NJDEP protocol. NJCAT Verified & NJDEP Certified.

# DSBB Applications

DSBB is commonly used in the following stormwater applications:

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Urban retrofit and redevelopment
- Pretreatment for reuse systems, detention/infiltration systems, bioretention, and media filters

**DURING STORM EVENTS**



*Trash and debris are captured in the filtration screen as sediments settle to the bottom chambers. Hydrocarbons are removed and absorbed by the boom.*

**BETWEEN STORM EVENTS**

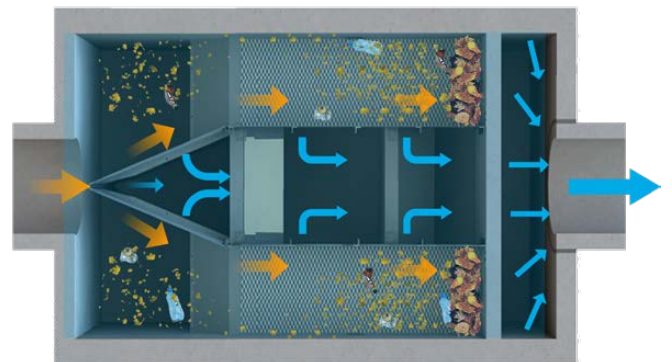


*Trash and debris are stored in a suspended screen system allowing pollutants to dry out between storm events. This eliminates septic conditions and prevents leaching of plant-based organics into water.*

## Select DSBB Certifications and Verifications

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

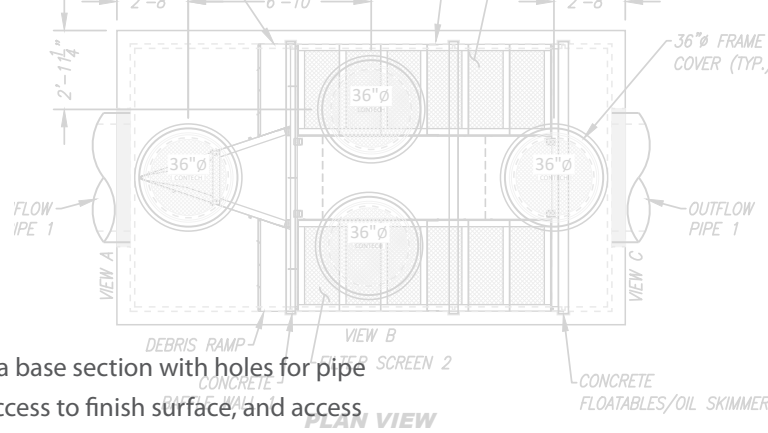
- New Jersey Department of Environmental Protection (NJDEP) Certification
- New Jersey Department of Environmental Protection (NJDEP) Scour Testing
- New Jersey Corporation for Advanced Technology (NJCAT) Verification
- California Water Resources Control Board, Full Capture Certification



*Flow is split upon entering the system and directed to the filtration screens along each side.*

**A breakthrough system for underground storage treatment**

# Select DSBB Installation



Installation of the DSBB is quick and easy. The system is composed of a base section with holes for pipe connections and internals preinstalled, a top section, risers to bring access to finish surface, and access covers. Installation of the system follows the same procedures as a standard vault installation.



Minimum excavation is required and the unit is delivered in base and top sections that join together.



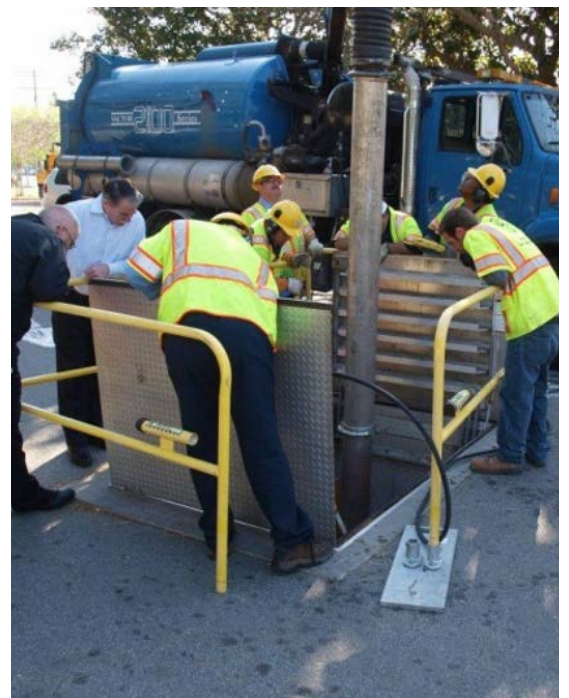
Internal components are installed prior to delivery, reducing installation time.

# DSBB Maintenance

Maintenance can be conducted above ground with a standard vacuum truck through a manhole or hatch.

The screen system allows captured solids to be removed without vacuuming out water or sediment chambers. The screens unlock and slide laterally for easy access to sediment collected in the lower chambers.

Contech has a network of Certified Maintenance Providers to provide maintenance on the DSBB and other stormwater BMP's.



The entire sump of the DSBB is accessible and can be viewed from the finish surface.

# A partner you can rely on



STORMWATER  
SOLUTIONS



PIPE  
SOLUTIONS



STRUCTURES  
SOLUTIONS

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](http://www.ContechES.com)

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