Catch Basin 4.0  
The Advanced Version™

Proper Catch Basin  
Design, Operation  
& Maintenance

Plus . . . The 5.5 Most Important FACTS 
You Need to Know

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Advanced Waste Services, Inc.

Transforming Today’s Wastes Into Tomorrow’s Resources™
Catch Basin General Overview

Catch Basins provide a valuable environmental protection function in your service and maintenance facility. Commonly found in automobile and truck dealerships, repair garages and other service facilities, Catch Basins are designed to collect and store common shop pollutants like dirt, oil dry, trash, rust, and petroleum residues, while allowing water from vehicle and floor washing to flow uninterrupted into the sanitary sewer system. The Catch Basin’s job is to keep these pollutants from clogging sewer lines and negatively impacting the sanitary water treatment system.

A Catch Basin needs to be cleaned and inspected regularly in order to function properly as pollutant collection device. Service and inspection frequency will be determined by several factors including:

- **Climate** (Particularly Rain and Snow fall)
- **Nature of Operations** (Generally Car Washing And Pressure Washing Creates More Pollutants)
- **Facility Traffic** (The Busier The Shop, The More Service Required)

Typically, for facilities located in the Upper Midwest, Catch Basins will be require service and inspection on an interval that varies from a maximum of once a month a for a High Volume operation to a minimum of once a year for low volume operation. When properly serviced, a Catch Basin is completely emptied using a vacuum truck to remove all of the pollutants collected by the Catch Basin. After the Catch Basin is empty and clean, it should be visually inspected for leaks, cracks, water infiltration and baffle integrity, any or all of which could prevent the Catch Basin from operating properly.
How Does A Catch Basin Work?

**Catch Basins** come in many sizes and shapes. Most often, a **Catch Basin** is cylindrical, made of poured or pre-cast concrete and covered by a circular slotted steel lid commonly called a “manhole” grate. The manhole cover design allows shop water contaminated with heavy pollutants like dirt, oil dry, trash, rust, etc. and light pollutants like antifreeze, motor oil, transmission fluid, etc. to enter the **Catch Basin**.

The **Catch Basin** is designed to operate with a constant water level that is controlled by the placement of an outlet baffle. When observed, the level of water in a properly operating **Catch Basin** will be about one foot below the manhole grate. A **Catch Basin** with high or low water level is not working properly and requires immediate attention.

The **Catch Basin** uses the simple hydraulic engineering principles of gravity plus detention time to allow the heavy and light pollutants to separate from the water and remain trapped in the **Catch Basin**. The relatively clean water is conveyed out of the **Catch Basin** and into the sanitary sewer system for additional treatment and re-use.

The Principle trapping mechanism used in the **Catch Basin** are “T” shaped pipes called Baffles. The Baffles are most often made of PVC in newer installations and Steel or Terra Cotta in older installations. Typically, the **Catch Basin** is equipped with one or two baffles, depending upon design.

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The Baffles perform two significant functions:

- ✓ First, they provide retention time which allows the heavy pollutants to settle to the bottom as solids called “sludge” and the lighter pollutants to separate from the water as a floating layer called “scum”.

- ✓ Second, the Baffles act like a dam to keep the floating pollutants captured in the Catch Basin from entering the sanitary sewer system.
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Catch Basins are often combined in a series connected by a network of underground piping through which water will flow before it is released to the sanitary sewer system.

Why Is Catch Basin Preventative Maintenance Necessary?

A Catch Basin is designed to perform vital, important environmental function in your facility. In order to consistently perform this function, a Catch Basin, like an automobile, requires regular preventative maintenance to keep doing its job well. As part of a proper Catch Basin preventative maintenance program, the heavy and light pollutants captured by the Catch Basin must be removed regularly and disposed of properly. If proper service is neglected, these pollutants will build up and overload the containment capacity of the Catch Basin, allowing prohibited pollutants to enter the sanitary sewer system. In addition, regular preventive maintenance prevents solids build up that can cause blockages and overflows. Finally, regular service provides an opportunity to visually inspect the Catch Basin and address problems like broke baffles, cracks and leaks that can impact the Catch Basin’s operation and effectiveness. Catch Basins that are not regularly or properly serviced will likely fail, allowing prohibited pollutants to get into the sanitary sewer system, clogging pipes, creating blockages and disrupting your shop’s operations!
Catch Basin Myths and The Facts

As explained earlier, the Catch Basin is a relatively simple device performing a significantly important environmental function. Despite its simplicity, or perhaps as a result of it, the proper care and service requirements for the Catch Basin are commonly misunderstood.

To help clarify our understanding of Catch Basins, we’ve identified the 5.5 most common Myths surrounding Catch Basins and countered those Myths with the FACTS!

<table>
<thead>
<tr>
<th>Myth</th>
<th>The Facts</th>
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<tbody>
<tr>
<td>1. Catch basins are just holes in the ground.</td>
<td>An engineered device designed specifically to keep common shop facility pollutants from entering the sanitary sewer system.</td>
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<tr>
<td>2. No need to pump a catch basin until it doesn’t drain.</td>
<td>Waiting until your catch basin does not drain is like waiting until your car stops before you check the oil. Catch basins require regular preventative maintenance.</td>
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<tr>
<td>3. Catch basin lines require jetting when catch basin is serviced.</td>
<td>Jetting lines will not be necessary if catch basins are serviced and inspected regularly. The need for jetting is caused most often by improper or neglected catch basin maintenance.</td>
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<td>4. Only the floating material needs to be removed during service.</td>
<td>Both the floating material and the sludge need to be removed to ensure proper catch basin operation and allow for proper inspection.</td>
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<tr>
<td>5. Water pumped from the catch basin should be dumped back into the catch basin – not hauled away.</td>
<td>A catch basin is designed to provide the detention time needed for pollutants to separate from the water. A vacuum truck is not. Dumping water from a vacuum truck back into a catch basin should never be done.</td>
</tr>
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<td>5.5 I don’t need to be concerned with where my catch basin waste is disposed.</td>
<td>Federal law mandates that the generator of a waste is always responsible to see that the waste is properly handled. Waste manifests and legitimate disposal sites should always be used.</td>
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Summary

A Catch Basin is an engineered device designed specifically to keep common shop facility pollutants from entering the sanitary sewer system. When operating properly, the Catch Basin traps and collects pollutants in a simple, efficient and reliable way. To ensure that your Catch Basin consistently performs the job for which it was designed, it is absolutely necessary to see that it is cleaned and inspected regularly by a qualified professional.

Failing To Properly Maintain Your Catch Basin Will Likely Result in:

- Pipe Clogs
- Blockages
- Business Interruption
- Unnecessary Emergency Calls and Expense
- Prohibited Pollutants Entering the Sanitary Sewer System

A little planning goes a long way!

If you’d like to know more about the properly caring for your Catch Basins or you’re interested in designing a custom Catch Basin Preventative Maintenance Program for your facility,

Please call the Catch Basin Pros at

Advanced Waste Services
(800) 842-9792 Today!

About the Author – Mike Malatesta is the founder and President of Advanced Waste Services, Inc., a Milwaukee-based industrial waste services provider. Widely recognized as an expert in the collection, transportation and disposal of commercial and manufacturing-related waste, Mike is also widely sought out for his unique perspectives on building and maintaining great companies. He can be reached at mikem@advancedwasteservices.com.
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Regular Old Package

AWS Premier Packages
(Please Indicate Plan Choice)

Silver Package
Only $427 Annually*
Specifically Designed for our Smaller Service Facility Clients, our Silver Package Includes One Scheduled Catch Basin Service Annually, Plus all the FREE benefits outlined below!

Gold Package
Only $737 Annually*
Specifically Designed for Mid-Size Service Facility’s, our Gold Package Includes Two Scheduled Catch Basin Services Annually, Plus all the FREE benefits outlined below!

Platinum Package
Only $1,279 Annually*
Specifically Designed for Largest Service Facility Clients, our Platinum Package Includes Four Scheduled Catch Basin Services Annually, Plus all the FREE benefits outlined below

* Includes Removal of up to 500 gallons of material. All gallons in excess of 500 will be charged an additional $.25 per gallon.

Guarantee

Free Stuff

All payments must be received in advance to qualify for Premier Package Pricing.
Premier Catch Basin Order Form

Name ________________________________________________    Date _______________________________

Company Name _____________________________________________________________________________

Address ____________________________________________________________________________________

___________________________________________________________________________________________

Phone  ___(______)____________________________     Fax  __(         )___________________________

Fax  ___________________________________

Payment Information

☐ Charge My Credit Card

Credit Card Type (Visa / MasterCard / American Express) ____________________________________________

Credit Card No. _____________________________________

☐ Bill Me

PO # _________________________________

I prefer to be contacted by ☐ phone    ☐ fax    ☐ email.

☐ Please send me my Bonus Free Gift

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