

CATCH BASIN FAQ's

1. What material are the catch basins made from?

A. A majority of the catch basins, Spee-D basins, risers, and catch basin universal outlets are made from styrene. The 9” catch basins (NDS part #'s 900 & 900-4) and 12” catch basins (1200NGB, 1200, 1203, & 1204) are made from polypropylene. The 18” catch basin (1882 & 1884), 24” catch basin (2400 & 2404), 24” catch basin riser (2418), and universal outlet for the 24” catch basin (2410) are made from HDPE.

2. Can pipes be connected directly to the catch basins?

A. No, a catch basin universal outlet must be used to connect pipes to the catch basins. A PDF of the outlets can be found at <http://www.ndspro.com/resources/information/drainage-catalogs/> and then selecting Catch Basin Universal Outlets.

3. What type and size of pipe can be connected to the outlets?

A. The outlet PDF referenced in question 2 lists the pipe size and pipe type that fit each outlet.

4. How do I make a tighter fit between the pipes and universal outlets?

A. The universal outlets are designed to fit a variety of pipe types and pipe sizes. If the connection between the pipe and the outlet is loose, apply a bead of waterproof silicone to both the pipe and the outlet and then connect the two. The silicone will hold the pieces together and create a waterproof seal.

5. Which outlet can I use with the catch basins?

A. The table below shows which universal outlets connect to which catch basin

Connects Directly To Catch Basin

Outlet	9”	12”	18”	24”
1242	X	X		
1243	X	X		
1245	X	X		
1266	X	X		
1888			X	
1889		X*		
2410				X

* - Offset Adapter will connect, but only in 2 of the 4 possible offset directions.

When coupled with the 1890 Universal Outlet Reducer Ring, the following outlets will connect to the 18” catch basin: 1242, 1243, 1245, 1266, & 1889. When coupled with the 2410 Universal Adapter (comes with an 1890 Reducer Ring), all outlets except for the 1889 can be connected to the 24” catch basin.

6. Can outlets be connected to the bottom of the catch basins?

A. The 9” and 12” catch basins have a cut-out in the bottom of the boxes. If this is removed, then the outlets that connect to the 9” and 12” catch basins can be connected.

7. How much water can the catch basins handle?

A. The size of the pipe connected to the outlets will be the limiting factor when it comes to drainage out of the catch basins. A table with approximate discharge rates for typical drainage pipe is below.

Constant Slope (Gravity Fed)

Pipe	GPM with 1% Slope	GPM with 2% Slope
3” Smooth Wall	63	92
4” Smooth Wall	135	196
6” Smooth Wall	391	568
8” Smooth Wall	833	1,211
10” Smooth Wall	1,498	2,178
12” Smooth Wall	2,420	3,518
3” Corrugated	25	37
4” Corrugated	54	78
6” Corrugated	156	227

Constant Flow Velocity (2 ft per second, Gravity Fed)

Pipe	GPM
3” Smooth Wall	44
4” Smooth Wall	75
6” Smooth Wall	160
8” Smooth Wall	280
10” Smooth Wall	420
12” Smooth Wall	600
3” Corrugated	44
4” Corrugated	75
6” Corrugated	160

8. Which catch basins have available risers?

A. 9”, 12”, 18”, & 24” catch basins have available risers.

9. How much height is added by the riser?

- A. The 9" and 12" risers add 6" from the top of the catch basin to the top of the riser. The 18" and 24" risers add 8" from the top of the catch basin to the top of the riser.

10. Can the risers be cut?

- A. The 9" riser (916) can be cut to any height and be inserted into the 9" catch basin. The 12" riser (1216) can also be cut to any height. After cutting the 12" riser to the desired height, the strengthening ribs need to be shaved so that the riser will fit into the 12" catch basin. The 18" and 24" risers can't be cut.

11. How many risers can be stacked?

- A. NDS does not recommend stacking more than 5 risers on top of the catch basins.

12. How do I secure the risers to the catch basin?

- A. Each riser fits snugly into the catch basin and each additional riser. It is recommended that the soil is backfilled and compacted around each riser prior to stacking the next riser. This will prevent the risers from shifting.

13. What is the minimum height (maximum cut) of the riser?

- A. The lips for the 9" and 12" catch basins and risers are 1-1/8". The base of the risers should not be cut shorter than 1-1/8". Cutting the risers to this length will add 1-1/8" to the top of the catch basins. The support ribs for the 12" riser will need to be shaved to fit into the 12" catch basin. The 18" and 24" risers cannot be cut to shorter heights.

14. Is the catch basin water tight?

- A. The sump area in the bottom of each catch basin is water tight. The connections between the catch basin and the sump boxes, risers, and universal outlets are soil tight, not water tight. Adding a bead of water proof silicone on each surface being connected will create a water tight connection.

15. What are the load ratings of the catch basins?

- A. When backfilled with soil, sand, or gravel the catch basins are rated for loads up to 60 psi (pedestrian traffic). When encased in 4" of concrete are rated for loads up to 175 psi (light vehicular traffic). When encased in 6" of concrete are rated for loads up to 325 psi (semi-trucks). When encased in 8" of concrete are rated for loads up to 575 psi (heavy-duty fork lift). The grate that is used must also have a load rating greater than or equal to expected load.

16. Do any of the catch basins have an available filter?

A. At this time, NDS does not manufacture a filter for the catch basins.

17. What types of grates are available?

A. See the table below for available grate types and colors.

Catch Basin	Flat Plastic				Atrium Plastic		Cast Iron	Galvanized Steel	Brass	Magnesium Bronze
	BLK	GRN	GRAY	SND	BLK	GRN				
9"	X	X	X	X	X	X	X	X	X	
12"	X	X	X	X	X	X	X	X	X	X
18"	X	X	X		X	X	X	X		
24"	X	X					X	X		

18. How do I raise the grade for the grate on a Spee-D basin?

A. The top of the Spee-D Basin is made to fit a piece of 6" SDR 35 pipe. After placing the Spee-D Basin in the hole, measure from the inside lip of the Spee-D Basin to the surface and cut the 6" SDR 35 pipe to length. Slide a 6" PVC coupling (part # 6P05) over the end of the pipe and then slide the 6" grate onto the coupling.

19. Which tabs do I break off on the 1200NGB catch basin?

A. The 1200NGB catch basin has been designed to allow for the outlet to be at 1 of 3 levels. The side panels (part # 1207) for the 1200NGB are stamped to indicate which tabs need to be removed. If you want the outlet to be as low as possible, the 2 bottom tabs on the side panel need to be removed. At this position, the center of the outlet is 9-1/16" below the top of the catch basin. If you want the outlet to be centered, the top and bottom tabs need to be removed. At this position, the center of the outlet is 6-15/16" below the top of the catch basin. If you want the outlet to be as high as possible, the top 2 tabs need to be removed. At this position, the center of the outlet is 5-9/16" below the top of the catch basin.