Catch Can and Clean-Air Separator Installation on a GMC/Chevrolet - 6.2L / 5.3L Truck (E2-X Pictures listed below)

With all the great improvements General Motors has done with their baffles in both the valve covers and where the crankcase dirty side is evacuated, there is still a lot of oil that enters the Air Intake from (2) two different locations.

#1 The Valley Cover (dirty side) - We'll use the Standard Elite Engineering Catch Can to address this issue
#2 The Clean Side (Air Intake Box)

As with many of GM's Direct Injection V8s, if you drive more than 5-10k miles w/out a good functioning Catch Can, your intake valves will eventually look like this:

And there are countless images on the Internet of oil buildup and pooling in the rubber bellows and engine Intake and throttle body:
Installing a proper functioning Catch Can will Catch that oil vapor mixture before it has a chance to cause damage.

The GMC and Chevrolet Catch Can installation is very simple and can be installed with these 8 simple steps. Shown is the 6.2L, the 5.3L is exactly the same but the PCV "dirty-side" hose is located a little further back in the Driver's Side. (See Addendum A on the last page). Some E2-X pictures are shown on the last pages.

**Before you begin, you should disconnect the negative battery cable**
1. Discount the Driver's Side Clean-Side plastic hose
2. Discount the Passenger's Side Clean-Side plastic hose
3. Remove (2x) rubber bellows clamps
4. Remove the large plastic air box to allow clearance
5. Remove the "dirty side" stock PCV hose
6. Mount the Catch Can to the Master Cylinder or Washer Fluid Reservoir
7. Splice in the Elite Catch Can
8. Reinstall the large plastic air box
Step #1 - Discount the Driver's Side Clean-Side plastic hose

This is easily removed by pressing on the light gray plastic strip and squeezing it together and pulling the fitting off the barb.
**Step #2** - Discount the Passenger's Side Clean-Side plastic hose

This is easily removed by pressing on the light gray plastic strip and squeezing it together and pulling the fitting off the barb.
Step #3 - Remove the two radiator type clamps that hold the rubber bellows in place. One is located on the right side of the air box (shown above). The other is located just before the throttle body (shown below).
**Step #4** - Now you can remove the large plastic Air Intake Box to gain access to the Throttle Body and "Dirty Side" PCV hose, shown below:
This vehicle has about 4,200 miles and already has some oil pooling up in the throttle body.

Next we'll remove the OEM PCV Hose/Tube shown here:
Step #5 - Remove the stock PCV Tube. Like on the Clean-Side fittings, press the two light gray plastic strips to compress and pull the fitting off the hose barb. Do this for both ends of the PCV Tube.
Here's a picture of the stock PCV Tube after removal.
Here's a picture of the barb connections for your Catch Can. Connection "A" comes from the Catch Can Exit Port (Side Fitting). Connection "B" comes from the Catch Can Inlet Port (Top Fitting).
Step #6 - The Catch Can could be mounted in two locations (1) on the 10mm Stud that holds the Master Cylinder in place. You will reuse the stock 10m nut. or (2) you can mount to the Alternate location (Spare Battery Box Bay), shown in the second picture below:

Master Cylinder Mounting Location
Washer Fluid Reservoir Bolt Mounting Location

Note: When mounting in this location. Swap out one of the (4) 6mm Battery Tray Bolts with the Washer Reservoir Bolt. The battery tray bolts are longer and will give you more thread engagement to add the "L" mounting bracket.
If mounting to the Master Cylinder stud, Remove the stock 10mm nut and install the supplied lock washer onto the stud.
Attach the Elite "L" Bracket on to the stud and thread the nut and tighten.

Using the two supplied #10-32 button head screws, attach the Elite Catch Can to the "L" bracket and tighten. I like to attach the hose barb fittings before mounting the Catch Can.
It's now time to connect the Inlet and Exit hoses. The Inlet hose should be about 17" long and the Exit hose is about 21" long.
**Step #7** - Shown with the hoses AND hose clamps installed. Be sure to put the hose clamps over the hose prior to installing each hose.

Note: If you choose to install a Check Valve (shown above). It should be installed on the Catch Can Exit side, flowing AWAY from the Catch Can. Unthread the Catch Can Bottom to remove and dispose of any captured oil.
Step #8 - Reinstall the factory Large Plastic Air Intake Box -
1) Attach the (2) two rubber bellows and tighten
2) Reconnect the Driver's Side Clean Side hose connection
3) Reconnect the Passenger's Side Clean Side hose connection
4) Reconnect the Negative Battery Cable
5) Enjoy a cleaner, more efficient engine
6) Checking the Catch Can Bottom every oil change should be sufficient
E2-X Pictures

Here are some additional pictures showing the E2-X Catch Can
Clean-Air Separator Installation

The Clean-side solution addresses that small amount of oil vapor that enters the intake air charge upstream of the throttle body during WOT operation when the intake manifold vacuum is not present.

Clean-Air Oil Separator

The Clean side solution allows 100% MAF metered air entry while trapping the oil during wide open throttle operation and allowing it to return back into the valve cover as soon as the throttle is lifted.
Simply installs as a direct replacement for your stock Oil Fill Cap allowing you to delete and replace the stock OEM hose.

At 1/2 the cost of the plastic hollow GM unit, our aluminum clean-side separator incorporates an internal coalescing material. Simply unscrew the top for a quick inspection or cleaning and pull out the unit to fill with oil when needed.
From the pictures above during the Catch Can installation, we will be addressing the "Clean-Side" ports from Steps 1 and 2 above.

The **Clean-Side Separator** will trap the oil that "burps" and will hold it and prevent it from being ingested. Any oil trapped will find its way back during full vacuum or normal deceleration or idle.

Added to the **Elite Engineering Catch Can**, this is your COMPLETE PCV Oil Ingestion Solution.

Above picture shown with Elite's Clean-Side Separator Installed into Oil Fill Cap location
Once the Clean-Air Separator unit is installed, the hose connections are pretty simple.

Remove the Passenger's Side and Driver's Side Stock Clean-Side Tubes from Step 2 of the Catch Can installation and discard.

Using the long piece of supplied 1/2" Hose, connect both hose barb together (connection 1 and 2) and secure with supplied Snap Clamps.
Cap off the Passenger's Side Hose Barb with the supplied Black Rubber Cap.
On the Driver's Side Air Intake Plastic Box:

- To Clean-Side Separator
- To Connection 2
Now connect the remaining plastic barb coming off the Driver's Side Large Plastic Intake Box to the Clean-Air Separator. Use the supplied 1/2" x 3/8" adapter.

It's that simple!

As with our Catch Can, all upgrades can be reversed and set back to stock if needed.
The Clean-Air Separator Base says threaded in place. Pull out the separator to remove and add oil when needed.
Addendum A (for 5.3L V8)

Installation and Mounting are exactly the same. Only difference is the location of the Stock PCV Tube. It's a little further back on the driver's side.