

# Oil Fill/Breather/PCV Holes For Small Block Chevrolet® Valve Covers by PML

Some engines require PCV, oil fill or breather holes in the valve covers and some do not. So PML designed these small block Chevy valve covers to fit the needs of a variety of applications.

If you want your valve covers to arrive with holes, you need to specify that when ordering.

This document describes the **most common set-up** for those requiring holes in our valve covers for PCV, breather, and oil fill. This configuration includes:

1. PML Small Block Chevy Valve covers with squared-off corners (any finish)
2. Hole machined in each cover (one for breather and one for PCV)
3. PCV grommet
4. Breather

The document applies to PML small block Chevrolet valve covers, perimeter mount, part numbers:

- 8357-1
- 8357-2
- 8357-3
- 8357-6
- 8357-7
- 25<sup>th</sup> Anniversary



This picture shows an example of a set of these PML valve covers, machined. The driver's side front has the push-in breather installed and the passenger side rear is connected to the PCV.

Below is a picture of the intake manifold side of the valve covers with holes machined and a PCV grommet in the cover on the right and a push-in breather in the cover on the left.



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## Location of Holes

If holes are needed in these PML valve covers, they can be machined. These valve covers have a recessed location on the intake manifold side of the valve cover as seen in this picture:



On the drivers side of the engine, this recess will be above the mounting hole near the front of the engine. On the passenger's side, the recess will be near the firewall.

This image shows what it looks like with a hole machined.

PML machines the holes for a clean appearance and a good fit to the grommet or breather. To achieve this, PML sets up on each cover and uses four different tools.



Corresponding to the recessed location, there are baffles on the inside of the valve covers.



Note that some other PML valve covers do not have a recessed location but do have internal baffles and can be machined in a similar way.



This shows the inside of the cover after we have machined it for a PCV/breather hole.

## Hole Size

PML machines holes to 1.22" in diameter to fit the push-in breather and grommet, both about 1 ¼" inches in diameter. Holes are back-faced and spot-faced.

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## Cost and Time

These machining operations are optional and carry an additional charge. PML has a machine shop on-site and valve covers are machined to order. The turn-around time is usually same day or next day. PML uses a CNC machine and four different tools.

## PCV Grommet and Push-In Breather

Here are close-up images of the PCV grommet (left) and push-in breather (right):



### Features:

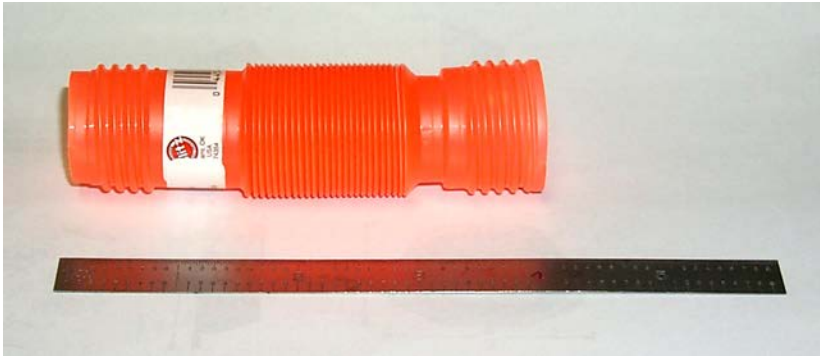
- The PCV grommet and the push-in breather both are 1¼ inch outer diameter.
- The breather is baffled on the inside.
- The breather foam piece can be removed for cleaning.
- The PCV grommet inner diameter is ¾" to fit PCV connectors.
- When installed, these are flush with the side of the valve cover.



## Oil Fill

If you have a PCV or breather hole, a separate oil fill hole isn't needed. Oil fill can be done through the PCV or breather hole.

After removing the grommet or breather, a hole machined for a PCV or breather can be used for oil fill. A flexible, expanding tube makes accessing the holes on the side of the covers easy. Auto parts stores sell these for a couple dollars. This is a picture of an oil filler tube made by Blitz:



## Examples

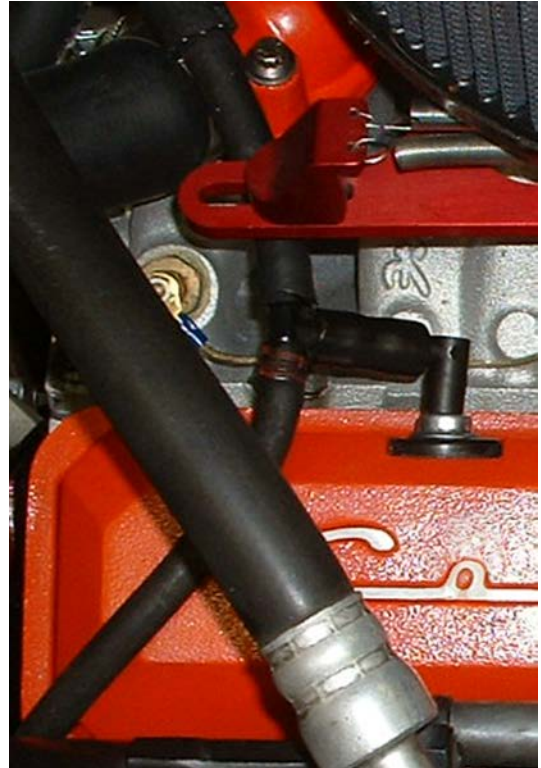
Here are close-ups of the push-in breather installed on driver side near the front and the PCV valve plumbed to a port on the carburetor on the passenger's side near the firewall.



This shows one way to vent the covers.

The push-in breather is installed on the driver side valve cover.

An angled fitting in the passenger side valve cover connects a hose to the base of the carburetor.



This example is from a 1934 Ford Cabriolet with a small block Chevy engine. The PCV is on the passenger's side (near the firewall).

The valve covers are PML part number 8357-6.

**Other configurations are possible.** Please give us a call or email us if you have questions or different needs, 800-335-4345 or [yourcovers@pml.com](mailto:yourcovers@pml.com).