

Anti-Syphon Valves Preventing the Backflow of Oil

When a vehicle manufacturer designs an engine for a vehicle, they determine a minimum performance level that the air, fuel and oil filters must meet to be deemed fit to 'do the job' on that vehicle. This often includes building specific design features into the filter to meet application requirements.

Of course, with no Australian standards for minimum filter performance, if filters are not engineered to the vehicle manufacturers' requirements, as a mechanic, it's difficult to really know what you're fitting to your customers' cars.

Utilising Australia's only dedicated filtration laboratory and stringent testing procedures, Ryco's design philosophy is to meet the vehicle manufacturers' performance requirements.

One such design feature, the anti-syphon valve is designed to prevent fluid from draining out of the oil filter once the engine has been shut down. The need for this type of valve arises in applications where the oil filter is mounted in a horizontal or inverted position.

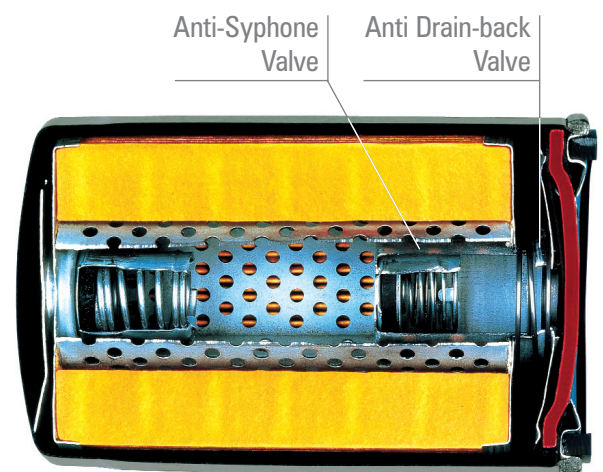
The anti-syphon valve performs a similar function to the anti drain-back valve by preventing oil from returning to the engine when switched off. The main difference between the two, is that the anti-syphon valve prevents oil from draining out from the filter outlet, whilst the anti drain-back valve prevents oil draining out from the filter's inlet holes.

The anti-syphon valve is located within the filter on the outlet side (otherwise referred to as the downstream side) – Refer to Figure 1. Spin On Oil Filter

The spring in the anti-syphon valve activates as a result of oil pressure change. Once the engine is turned off, the lack of oil pressure causes the spring loaded valve to close preventing the backflow of oil. This ensures positive oil supply and pressure to the engine's bearings on start-up.

The absence of an anti-syphon valve for a required application will result in delayed oil flow to the engine upon start-up. This effect, often referred to as "dry start" causes abrasive wear and bearing damage. Repeated delays in oil flow to the vehicle's engine, can ultimately result in engine replacement.

When you fit a Ryco filter you can be confident that Ryco's experience and technical expertise are working with you for optimal filtration and engine protection.



Spin On Oil Filter

Figure 1