The Evolution of Cartridge Oil Filters

Prior to the mid 1950's virtually all engine oil filters were of the cartridge style. Changing the oil filter was a very messy job that could result in a good deal of oil leakage both in and around the area of the housing and on the mechanic or technician. The cartridge housing had to be thoroughly cleaned, which in some cases required removal of the housing. On many applications there were various internal housing components that also had to be cleaned and properly positioned when installing the new cartridge. Due to variations in housing designs, the installation of the filter and proper placement of the housing sealing gasket also required various installation techniques.

The introduction of the spin-on filter in the mid 50's solved many of the cartridge filter installation problems. It made the changing of the oil and the filter more user-friendly and allowed many vehicle owners to assume the responsibility of changing their own oil and filters. In the late 1980's European original equipment manufacturers began reverting back to the cartridge oil filter. We see this same trend in Asian and North American produced vehicles.

This change from a spin-on filter to the new cartridge filter addresses issues such as: modular assembly, serviceability, environmental impact, and weight.

Today's cartridge style filter housings are designed with a screw on top cap and sealing gasket(s). After the housing is drained the housing top is then unscrewed and the used filter cartridge and housing sealing gasket(s) removed without any oil leakage. The new filter is then installed in the housing or fitted to the housing cap. The new sealing gasket is installed and the housing cap tightened per installation instructions. The used engine oil is then drained from the crankcase. New oil is added and the engine started to check for proper oil pressure or any possible oil leakage.