SureDrain Technical Guide

Oil Pan Drainage:
The SureDrain valve is designed to not extend past the oil pan drain threads when installed. The number of threads on the SureDrain valve was determined from evaluating stamped steel and cast aluminum oil pans. Many oil pans normally do not drain completely due to the drain configuration. For example, many stamped steel oil pans use a spot welded nut or threaded extrusion on the inside of the oil pan for the drain plug. Under normal conditions, the oil around the nut/threaded extrusion will not drain. Therefore, the SureDrain should not increase the amount of residual oil that may remain due to the internal configuration of the oil pan.

Drain Plug Leakage:
The SureDrain actuator valve utilizes a copper compression washer to provide a seal against the engine oil pan. The copper compression washer was chosen to provide a long lasting, durable, leak-tight seal. Due to the long durability of the SureDrain washer, the copper material may be harder than the original drain plug washer. Under certain conditions, such as irregularities on the sealing surface of the oil pan, the SureDrain oil drain plug may need to be further tightened to conform to the pan and provide a leak-tight seal. The recommended installation torque specifications are listed on the inside cover of the packaged cardboard fold-out. If a torque wrench was used to install the SureDrain, we suggest you increase the recommended torque value by 5 ft.lbs. Wipe the area clean and inspect for leakage. If the SureDrain was not tightened using a torque wrench, slightly tighten the SureDrain a little more to your best judgement. Wipe the area clean and inspect for leakage.

Oil Drain Duration:
The SureDrain Actuator Valve has a smaller flow area compared to the open threads of the oil pan. The SureDrain Actuator valve will drain 1 quart of multi-viscosity motor oil at 180 degree (F) in approximately 1 minute and 15 seconds under normal operating conditions.
A slower drain could be caused by:
(1) oil temperature below 180 - 200 degree (F)
(2) the drain activation assembly is not threaded completely onto the valve
(3) improper venting caused by not removing the oil fill cap on the valve cover of the engine prior to draining oil.
Make sure the oil is at the appropriate temperature, the actuator is fully engaged, and that the oil cap is removed from the valve cover for proper venting.