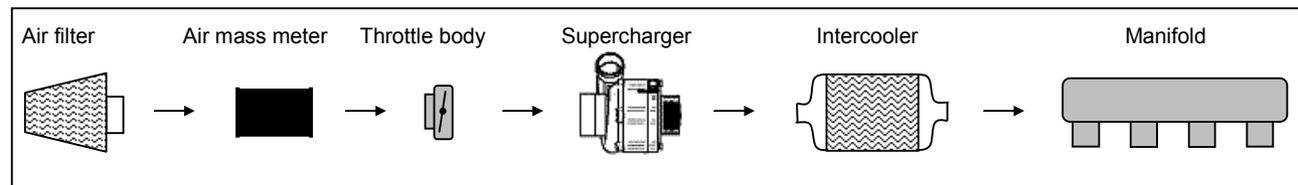
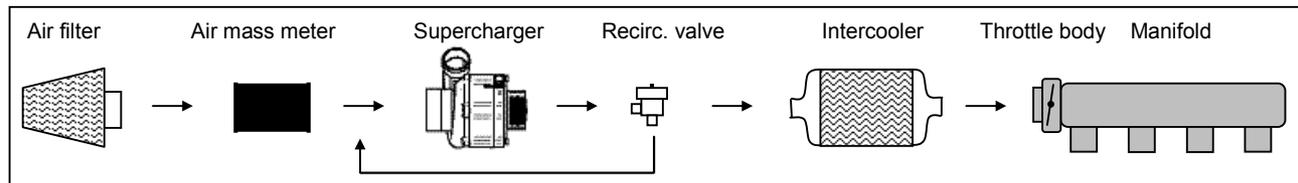


Air ducting

The most energy efficient solution is to have the throttle body positioned upstream of the supercharger. This will minimize the pump work by the supercharger, thus minimizing fuel consumption under part load because of the thin air situation around the impeller at throttle angles less than 90°. Also a re-circulation valve can be avoided in this type of set up.



A somewhat simpler approach (recommended for most aftermarket applications) is to leave the throttle body at the original position. If you choose to position the throttle body downstream, a re-circulation valve is recommended. If the valve is omitted the supercharger will create noise under deceleration caused by surge. Surge occurs when the supercharger keeps making pressure at low airflow forcing the compressor to work outside the intended operation area. This will be most noticeable on high boost applications under high engine rpm with the throttle closed (deceleration). The re-circulation valve will prevent surge by allowing air to circulate from the pressure side of the supercharger to the inlet side of the supercharger under manifold vacuum conditions.



The crankcase ventilation system (Positive Crank Ventilation PCV) is to be connected to the inlet of the supercharger. If the vehicle is equipped with a Mass Metering Unit (MMU), the crankcase ventilation must be connected downstream of the MMU to prevent oil vapours from corrupting the signal of the MMU.

