

Basic E30 M20 Engine Modifications for more Power

These engine modifications apply to the 325i 2.5 liter motor. The 2.7 liter "e" motor does not really lend itself to much in the way of gains, but most of these modifications also work on the "e" motor.

Performance Engine Chip- Simple, effective and inexpensive

Free Flow Air Filter and Heat Shield - This is an effective and simple modification. Not much good without a heat shield.

Larger Air Flow Meter - Very effective. The 3.5 liter air flow meter is much larger than the 325i meter. It can be used directly. However, most cars will not idle very well unless you replace the board in the 3.5 unit with the board from your 2.5 liter. Buy a new meter to throttle body rubber boot, warm up the end and stretch it to fit the 3.5 unit.

Mass Air Flow Sensor - One of the most effective modifications you can make, but not cheap. Best units go for about \$900.

Larger Bore Throttle Body - Effective only with other mods and then only at higher rpms.

Extrude Hone Intake Manifold - Very effective. About 15 HP gain, but not cheap

Higher Flow Injectors - Effective with other mods. Actually this is an important addition if you have substantially increased HP. Without more fuel the engine may tend to run lean at high rpm

Adjustable Fuel Pressure Regulator - Effective. More HP means more fuel demand. Increasing the fuel pressure to the injectors means more flow for the same duty cycle.

Cam Changes - Very effective. A mild reground cam or Schrick 272 will make a difference you can feel without affecting the idle much. Installation cost can make this mod a bit expensive.

Exhaust Header - Gains with stock engine are not great, but modified engines will benefit more. Our shorty header is very cost effective. The Stahl header has more potential but is also more costly.

Cat Back Exhaust - Not very effective. I have not seen any cat back systems that actually result in significant gains. However, if your system is ready for replacement they are a good choice as the factory unit is heavy and a bit expensive. All the aftermarket systems are much lighter than the stock unit.

