

Metric Mechanic M5 & M6 Engine Series

3700 Sport, 3700 Rally & 3600 Forced Induction

BMW M5 & M6 Engines: S38 (B35), E28 M5/E24 M6 - S38 (B36), E34 M5 USA & Euro, S88 (B35), Euro 635csi, S38 (B38) Euro, E34 M5

MM Engine	HP	Displacement	CR	Intake Ports Diam/mm	Bore in mm	Stroke & Crank	Rod Length & Weight	Rod Bearing	Piston Weight	Pin Weight	Intake Valves Head diam/length	Exhaust Valves Head diam/length	Cams Duration in° & Lift in mm	Valve Springs
3700 Sport	310 HP	3656 cc	11.5:1	29.5 mm 16% Flow Increase	95 mm	86 mm Forged Forged Chrome Moly Steel	144 mm Stock I Beam 720 grams	Stock	95 mm Forged Alusil 375 grams	22 mm 89 grams	37 mm with Surface Turbulence	32 mm	In: 262° Duration 9.85 mm Lift Ex: 262° Duration 9.85 mm Lift	MM Dual
3700 Rally	350 HP	3656 cc	11.5:1	31 mm 26% Flow Increase	95 mm	86 mm Forged Forged Chrome Moly Steel	143 mm H Beam 525 grams	Special Coated Tri-Metal	95 mm Forged Alusil 375 grams	22 mm 89 grams	37 mm with Surface Turbulence	32 mm	In: 295° duration 11.25 mm Ex: 262° Duration 9.85 mm Lift	MM Dual
3600 FI Forced Induction	12-14 lbs. 550 HP	3580 cc	8.6:1	31 mm 26% Flow Increase	94 mm	86 mm Forged Chrome Moly Steel	144.75 mm H Beam 565 grams	Special Coated Tri-Metal	94 mm Forged Alusil Ceramic Coated Crown 400 grams	23.5 mm 110 grams	37 mm with Surface Turbulence	32 mm	In: 280° Duration 10.25 mm Lift Ex: 262° Duration 9.85 mm Lift	MM Dual
Stock Engines S38/B35 USA E28/M5 USA E24/M6	256 HP	3451 cc	10.0:1	26 mm	93.4 mm	84 mm Forged Chrome Moly Steel	144 mm I Beam 720 grams	Stock	93.4 mm Cast 455 grams	22 mm 118 grams	37 mm	32 mm	In: 262° Duration 9.85 mm Lift Ex: 262° Duration 9.85 mm Lift	Dual
Stock Engines S38/B36 USA E34/M5	310 HP	3534 cc	10.0:1	28 mm	93.4 mm	86 mm Forged Chrome Moly Steel	144 mm I Beam 720 grams	Stock	93.4 mm Cast 455 grams	22 mm 118 grams	37 mm	32 mm	280° duration 10.67 mm	Dual
Stock Engines S88 Euro M635/B36	286 HP	3451 cc	10.5:1	26 mm	93.4 mm	84 mm Forged Chrome Moly Steel	144 mm I Beam 690 grams	Stock	93.5 mm Cast 455 grams	22 mm 118 grams	37 mm	32 mm	282° duration 10.41 mm	Single
Stock Engines S38/B38 Euro E34/M5	343 HP	3794 cc	10.0:1	29 mm	94.6 mm	90 mm Forged Chrome Moly Steel	142.5 mm I Beam 635 grams	Stock	94.6 mm Cast 470 grams	22 mm 118 grams	38.5 mm	32.5 mm	280° duration 10.25 mm	Dual

Notes:

- All the above Engines have forged Chrome Moly Steel Crankshafts.
- All S38 Engines use Double Row Timing Chains, except the S88 which uses a Single Row Chain.
- All S38 Engines use 37.5 mm Lifter Buckets with 33 mm Shim Pads.
S88 Engines use 35 mm Lifter Buckets with 31 mm Shim Pads
- Block Oil Squirters used only on B38 Engines.
- The Identification #'s on the Intake and Exhaust Cam Sprockets indicate Lobe Center Position.
For example, a 110 Cam Sprocket will put the cam in at a 110°Lobe Center
- Head Bolts are 12mm x 1.75 x 109 mm long, except for the Euro B38 which are 119 mm long.

Engine Accessories

- Ported Throttle Bodies**
MM Rally Engines require ported Throttle Bodies (46mm). Euro S38/B38 Throttle Bodies are 50mm and cannot be ported because of their rubber base gaskets.
- MAF (Mass Air Flow) Conversion**
For USA E28 / M5 and E24 / M6
- Headers**
Tube Diameters are:
S38 / B35 42mm (1 5/8")
S38 / B36, B38 45mm (1 3/4")
S88 Euro 45mm (1 3/4")
We recommend S88 Euro Headers on all our Rally Engines along with our MM Exhaust System 300 Exhaust.
- MM Exhaust System 300**
- Lighten Flywheel & Clutch Assembly**
The Flywheel is lightened to 12.5 lbs and our Hitorque Clutch Assembly has 12 strapping bands and a lightweight disc.

Options:

- 3700 Sport Engine: Intake Can can be upgraded to 280° Duration at 10.25mm Lift
- 3600 Forced Induction Engine: Pistons can be upgraded further to 94mm "Hard Anodized" for extreme boost.