



Small Block Ford Aluminum Block Specifications and Instructions

Technical data and specifications for BARE ALUMINUM block part numbers:

<u>Part#</u>	<u>Style</u>	<u>Bore</u>	<u>Bore Finish</u>	<u>Deck Height</u>	<u>Main Caps</u>	<u>Cam Height</u>	<u>Lifter Bores</u>	<u>Mains</u>
087510	SBF	3.990"	Unfinished	8.200"	Billet Splayed	Std Cam	Unfinished	2.248" Mains
087520	SBF	4.115"	Unfinished	8.200"	Billet Splayed	Std Cam	Unfinished	2.248" Mains
087572	SBF	3.990"	Unfinished	9.500"	Billet Splayed	Std Cam	Unfinished	2.749" Mains
087582	SBF	4.115"	Unfinished	9.500"	Billet Splayed	Std Cam	Unfinished	2.749" Mains

Casting Number: BMP-352A (9.500"), BMP-352D (8.200")

Block Material: Aluminum 357T6 aluminum alloy

Block Weight: 8.200" 100lbs and 9.500" 115lbs w/ caps and sleeves

Deck Height: 8.200" or 9.500" (Standard Ford)

Deck Thickness: .600 minimum.

Camshaft: Standard location, Can be machined to 60mm

Cam Bearings: Durabond Part# DUR351HP

Note: When installing, BE SURE the oil hole in the bearings aligns with the oil feed hole

Main Bearings: Utilizes 2.248" or 2.749" Ford style main bearings. (Depending on main size of block) All blocks regardless of main journal size utilize a one piece rear main seal. MRG# 30 (2.248") or MRG# 31 (2.749")

Main Caps: All five main caps are four bolt billet caps with the center three being of the splayed design. The inner row of studs are 7/16" inch thread. The outer row of bolts are 7/16 thread and the four outside corner bolts are 3/8". Torque specs on main studs and bolts are: 75 ft. lbs. inner & 70 ft. lbs. outer and 45ft.lbs. on four corners with oil.

Lifter Bores: Standard location, Indexed. Lifter bore size is standard Ford diameter .8750" unfinished.

Note: When using OE style roller lifter guides (tie bars) with spring-steel retainer on a BMP Ford aluminum block, some material may need to be removed from the guide. This should be checked at each lifter boss location. Remove only enough for clearance.

Cylinder Bores: 3.990" or 4.115" standard. Cylinder bores are of a Siamese design. Sleeves are a replaceable, centrifugal cast ductile steel pressed-in with a .001" to -.002" fit. Sleeves do not protrude into the water and are considered to be a DRY sleeve.

Maximum Recommended Bore: 4.165". Sleeve OD size is 4.285"

Cylinder Bore Centers: Stock 4.380".

Freeze Plugs: All aluminum blocks include screw in freeze plugs. Torque to 35lbs with anti seize on threads and o-rings BMP part# 701645.

Distributors: Standard SBF

Oil System Features: Accepts a std OE internal oil pump. Block has provisions to be converted to a dry sump oiling system.

Oil Restrictors: All BMP blocks use SPECIAL oil restrictors, BMP part # 701804-2. If oil restrictors are required, 2 restrictors will be installed in the rear of the block

Filtration: Integral mount for spin on filter.

Oil Pan Rails: Solid (stock width). Billet splayed cap blocks may have oil pan interference with the front and rear main caps. It may be necessary to hand fit the oil pan.

Cylinder Head Bolt Holes: Head bolt holes are blind. IT IS THE BUILDER'S RESPONSIBILITY TO DETERMINE THAT BOLTS OR STUDS USED HAVE THE PROPER ENGAGEMENT TO PREVENT STRIPPING THE THREADS. Threads are machined .500" deeper than stock so that the clamping force is below the deck. For conventional style Ford heads ARP part# 154-4301, For BMP SBF 10° heads ARP part# 154-4302

Stroke Clearance: Will accept a 3.500" stroke in 8.200" deck and a 4.250" in a 9.500" deck block.

Fuel Pump: Uses stock style fuel pump and stock length fuel pump pushrod. When using a billet aluminum fuel pump block off plate you may need to modify it slightly for fit due to overall size.

Starter: Starter mounting pad is drilled for stock bolt pattern.

Motor Mounts: Drilled and tapped for side mounts in OEM locations. Block may need additional clearance in some applications.

Bell Housing Pattern: Stock SBF.

Gear Drives & Belt Drives: Info N/A at this time

Before Final Assembly:

1. Before any machine or assembly begins, thoroughly inspect the block for any defects including all oil passages to assure they have been drilled completely. Remember you are the final inspector. Trial fit of the rear main seal is highly recommended to assure a nice fit. Once any machine work of any sort has begun, the block is NON-RETURNABLE. We do our very best in quality control but is not impossible for something to slip by.
2. Due to the nature of aluminum blocks with ductile iron sleeves we highly recommend that the sleeves be pressed down (not hammered) to ensure that they are completely seated in the block prior to decking. (hammering down with big hammer and a piece of wood will not assure the seat to be fully seated as this could cause the sleeve to bounce. You may find that after decking and cleaning the block in the hot tank that the sleeves may rise .001" to .002" above the deck. This is completely normal and you can proceed with assembly as this will not affect the operation of the block. This condition will be corrected with the installation of the cylinder heads.
3. Make sure block is free of debris. Clean block thoroughly.
4. Lifter bores are machined to the factory spec of .8750. Lifter diameters vary by manufacturer. Slight honing of the lifter bores may be needed for proper lifter to lifter bore clearance.
5. Long rod and stroker applications need to be dry assembled and checked for connecting rod to block interference. Grinding of the oil pan rail may be necessary. Clearance needs to be kept at a .050 minimum.

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While our products are used in many applications using super-chargers, Turbos or Nitrous successfully, please be aware that there is a greater potential for engine damage due to the possibility of tuning errors.

PLEASE DO NOT CALL THE DEALER FROM WHICH YOU PURCHASED YOUR PARTS. If you have any questions, please contact BMP customer service at 386-957-3009

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