



PISTON INSTALLATION INSTRUCTIONS

Important - Before balancing, please check to make sure that you have the correct components. Used or altered parts are non-returnable.

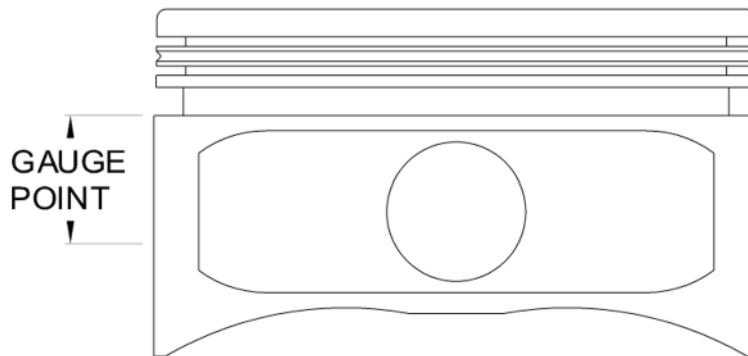
PISTON TO CYLINDER WALL CLEARANCE

Although piston to wall clearance preferences vary somewhat among engine builders, we recommend the following:

	Gauge Point	Uncoated Skirt	Coated Skirt
SB Chev, Chev LS, Chry Hemi, Ford 351C	1.100"	.0050"	.0045"
BB Chevy	1.100"	.0060"	-----
Ford Modular 4.6L/5.4L & Coyote 5.0L	.850"	.0035"	.0030"
Ford Raptor 6.2L	1.100"	.0050"	.0045"
Ford 2.0L/2.3L & Mazda MZR	1.100"	.0035"	.0030"
Audi/Lamborghini/Toyota (Turbo Tuff Series)	.850"	.0040"	.0035"
Acura/Honda, Hyundai, Mitsubishi,	1.100"	.0040"	.0035"
Nissan SR20/VQ35, Toyota (6090, 6091, 6290, 6291)			

Piston diameter must be measured at a gauge point, which is measured from the bottom of the oil ring. (See Fig. 1) Clearance is built into the piston based upon the finished bore size of the cylinder.

Fig. 1



PISTON WRIST PIN OFFSET

Some Manley pistons are designed with offset wrist pins to reduce connecting rod angularity; such as the Chevrolet LS-1, Ford Modular 4.6L, 5.4L, Chrysler Hemi 5.7L and Sport Compact pistons. Please note the arrow on the top of each piston. This arrow **MUST** point to the front of the block. Also certain applications are marked with either a "D" or a "P". If marked with a "D", install on the driver side of the motor and a "P" is installed on the passenger side of the motor.

SPIRAL LOCKS AND ROUND WIRE LOCKS

Manley pistons are designed to retain the wrist pin with either single spiral locks (2 per piston), dual spiral locks (4 per piston), or round wire locks (2 per piston); depending on the application. Proper installation of locks is critical!

OIL RAIL SUPPORTS

When included, the oil rail supports (Groove Lock Spacer) are installed on the bottom of the oil groove underneath the oil rail. These "RTD" oil rail supports incorporate our "Radial Tension Design". We machine a receiver groove in the piston specifically for proper installation and fitment of these "RTD" oil rail supports. The "RTD" feature prevents rotation; thus eliminating the need for dimpled oil rail supports.

SPORT COMPACT PISTONS

We recommend using a correctly sized tapered ring compressor tool during piston/ring installation.

RECOMMENDED RINGS

DUE TO DISCREPANCIES IN RADIAL DEPTHS OF PISTON RINGS IN THE FIELD FROM VARIOUS MANUFACTURERS, WE ADVISE USING MANLEY PERFORMANCE PISTON RINGS ON ALL MANLEY PERFORMANCE PISTONS ENSURING MAXIMUM PERFORMANCE.