



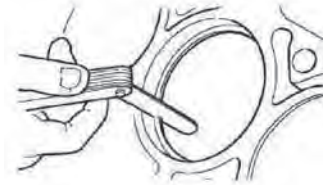
CLAIMER PISTONS

Installation Instructions For Hypereutectic Pistons

TOP RING: bore x gap factor (SEE BACK PAGE FOR YOUR SPECIFIC APPLICATION FACTOR) = end gap

Example: 4.030" bore x .0065" factor (street naturally aspirated) = .026" minimum gap

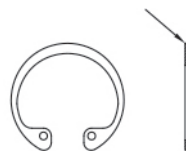
SECOND RING: Naturally Aspirated – .004" per inch of bore min.
Boosted – .005" per inch of bore min.



LOCK RING INSTALLATION

TRU-ARC LOCK

- POSITION OPEN END OF LOCK FACING DOWN, SHARP EDGE TO OUTSIDE.

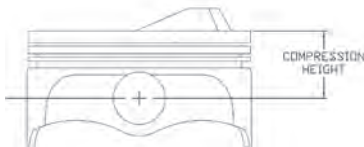


NOTE: DO NOT OVER COMPRESS LOCK. DO NOT USE LOCKS WITH A PRESS FIT ROD.

PISTON NOMENCLATURE:

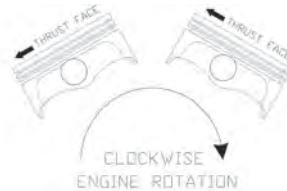
Compression Height

Centerline of wrist pin to top of piston, do not include dome height.



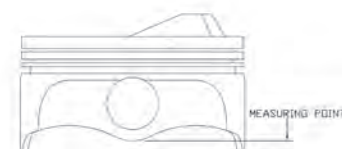
Offset Wrist Pin

The short side of the offset must be towards the thrust face of the engine.



Measuring Point

Measure even with the bottom of the wrist pin pad and 90° to the pin.

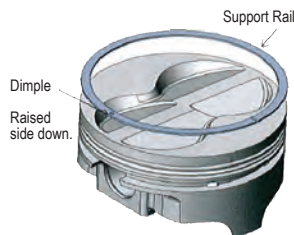


OIL SUPPORT RAIL:

Applications where the wrist pin is intersecting the oil groove require an Oil Support Rail to bridge the gap the wrist pin cut out has made. All three of the oil control rings are installed on top of the support rail.

Special Note: Raised dimple on support rail is positioned down and indexed in the open area the wrist pin has made in the oil ring groove.

Verify the oil support rail is flat at the point where the dimple is punched into it. If there is a slight bow lightly bend the rail straight.



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General Clearance Guidelines

APPLICATION	Ring End Gap Factor	PISTON TO WALL CLEARANCE	
		4.000" - 4.100"	4.100" and up
STREET NATURALLY ASPIRATED	.0065"	.0015" - .0020"	.0020" - .0025"
STREET TOWING	.0080"	.0015" - .0020"	.0020" - .0025"
STREET NITROUS OR SUPERCHARGED	.0080"	.0020" - .0025"	.0025" - .0035"
CIRCLE TRACK 2 BBL/RESTRICTOR GAS	.0070"	.0015" - .0045"	.0020" - .0050"
CIRCLE TRACK UNRESTRICTED	.0080"	.0025" - .0045"	.0030" - .0045"
CIRCLE TRACK ALCOHOL INJECTION	.0080"	.0025" - .0045"	.0025" - .0050"
CIRCLE TRACK ALCOHOL CARB	.0080"	.0030" - .0045"	.0030" - .0050"
DRAG GASOLINE	.0075"	.0015" - .0045"	.0020" - .0045"
DRAG ALCOHOL	.0065"	.0015" - .0045"	.0020" - .0045"
DRAG SUPERCHARGED OR NITROUS	.0095"	.0020" - .0045"	.0025" - .0050"
DRAG SUPERCHARGED ALCOHOL	.0085"	.0015" - .0045"	.0025" - .0045"
MARINE NATURALLY ASPIRATED	.0007"	.0030" - .0045"	.0035" - .0050"
MARINE SUPERCHARGED	.0008"	.0030" - .0045"	.0035" - .0050"
PROPANE	.0065"	.0015" - .0045"	.0020" - .0045"

Modern piston design locates the top ring higher for improved performance. A high top ring operates at higher temperatures and requires a larger top ring end gap. To find the proper ring end gap, multiply our bore size by the ring end gap factor listed on the chart (i.e., Street Naturally Aspirated 4.000" bore x .0065" gap factor = .026" total top ring end gap).

Your hypereutectic performance piston will expand less than typical cast or forged pistons. Because of this and the wear characteristics of the hypereutectic alloy, you can run tight piston-to-wall clearances.

Final piston clearance should be based solely on the demands of your application.

Factors such as fuel type, altitude, outside temp., humidity, tune up, and many others factors need to be taken into account for your final clearance.

PISTON ORIENTATION



QUENCH AREA (YELLOW):

Quench is the area behind the valves. This area should match the flat area on your cylinder head. Proper quench promotes cooling of the piston and can be effective in reducing detonation.



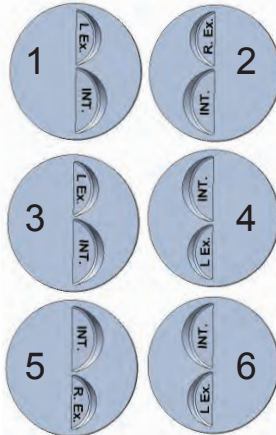
NOTE: Some pistons come with symmetrical valve reliefs. This allows the piston to be fitted to any cylinder with just orientating the quench area towards the center of the block.

CHECKING CYLINDER HEADS: Check cylinder heads with clay or some other method before balancing and final assembly to assure proper piston to head clearance. .040" minimum clearance.

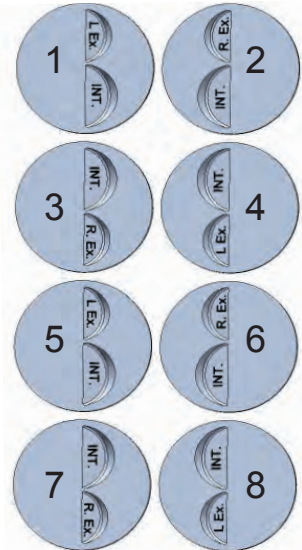
CHEVY 302, 305, 327, 334, 350, 377, 383, 400, 434
CHRY 318, 340, 360, 383, 400, 408, 440, 450, 463, 468, 493, 498, 505, 520
BUICK 455
PONTIAC 389, 400, 428, 455

CHEVY V6 4.3L / 262 CI
4 LEFTS AND 2 RIGHTS

FRONT



FRONT



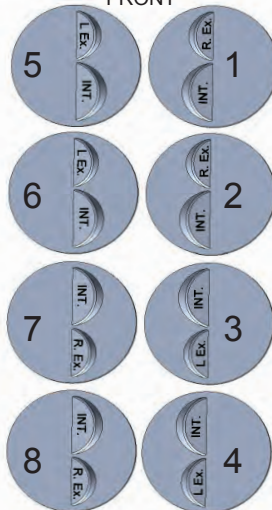
FORD 289, 302, 331, 347, 351W, 372W, 383W, 393W, 408W, 416W, 418W

FRONT



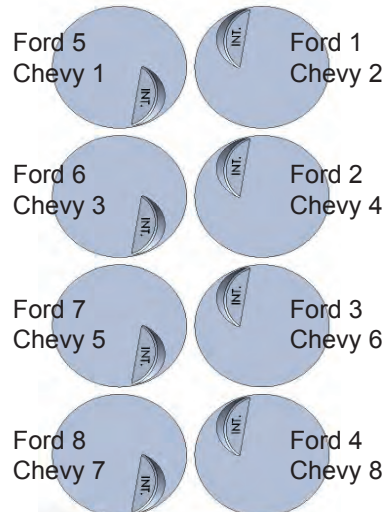
FORD 390FE, 406FE, 410FE, 427FE, 428FE, 438FE, 452FE, 455FE, 482FE

FRONT



FORD CLEV 351C&W/C, 377C, 387C, 402C
FORD BB 429, 460, 502, 520, 545
CHEVY BB 396/402, 427, 454, 489, 502, 540

FRONT



TOYOTA 22R 1985 AND NEWER

FRONT

