

PISTON AND RING INSTALLATION GUIDE

REV6 PISTONS SHOULD BE INSTALLED TO THE CLEARANCE SPECIFICATIONS IN THE OEM SERVICE MANUAL OF THE GIVEN APPLICATION. ADDITIONAL BORE CLEARANCE MAY BE NECESSARY FOR AN ENGINE THAT HAS BEEN MODIFIED.

ALWAYS HAVE THE PISTON AVAILABLE WHEN BORING ANY CYLINDER SO THE CLEARANCES CAN BE EXACT. DO NOT HAVE THE CYLINDER BORED BEFORE PURCHASING YOUR PISTON. BE SURE TO DOUBLE CHECK THE CLEARANCES BEFORE FINAL ASSEMBLY.

-REV6 RECOMMENDS YOU HAVE THE OFFICIAL/OEM INSTALLATION SPECIFICATIONS AND SERVICE MANUAL SPECIFIC TO THE MACHINE THAT YOU ARE INSTALLING THESE PISTONS IN.

CLEAN PARTS THOROUGHLY AND USE QUALITY INSTALLATION LUBE WHEN INSTALLING ENGINE PARTS. THE CYLINDER(S) SHOULD BE CLEANED THOROUGHLY WITH A GOOD SOLVENT AND SOME PAPER TOWELS. DO THIS UNTIL THE TOWEL COMES OUT CLEAN AND RESIDUE FREE. REPEAT IF NECESSARY TO AVOID LEAVING ANY DEBRIS OR OIL IN THE CYLINDER.

HERE AT REV6 ENGINES & PARTS OUR PISTONS ARE MANUFACTURED PER OEM SPECIFICATIONS. REFER TO YOUR SHOP MANUAL TO FIND THE CLEARANCE FOR YOUR MACHINE.

THE CHART PROVIDED BELOW IS A GENERAL INDICATION OF CLEARANCE.

PISTON TO CYLINDER CLEARANCE SPEC CHART

CYLINDER & CAPACITY	2-STROKE 50-250CC	2 STROKE 251CC+	4-STROKE 50-124CC	4-STROKE 125-249CC	4-STROKE 250CC+
CLEARANCE	0.05 - 0.06MM	0.06 - 0.07MM	0.04 - 0.06MM	0.04 - 0.06MM	0.04 - 0.06MM



RING INSTALLATION:

2 STROKE:

- **MARKINGS ALWAYS FACE UP.**
- **THINNER, DARK GRAY WITH SILVER FINISH ON THE OUTER DIAMETER = TOP COMPRESSION RING**
- **THICKER BLACK RING = SECOND COMPRESSION RING**

4-STROKE:

- **MARKINGS ALWAYS FACE UP.**
- **TOP: THINNER, DARK GRAY WITH SILVER FINISH ON THE OUTER DIAMETER = TOP COMPRESSION RING**
- **MIDDLE: THICKER BLACK RING = MIDDLE COMPRESSION RING**
- **BOTTOM: THE "OIL" RING, MADE UP OF ONE EXPANSION RING AND TWO SCRAPER RINGS**

REV6 PISTON RINGS PRE-GAPPED AND MATCHED FOR THE SPECIFIC PISTON AND BORE SIZE. TYPICALLY IT IS NOT NECESSARY TO FILE THE RING GAP, BUT WHEN INSTALLING THE RINGS ON THE PISTON, THE INSTALLER SHOULD STILL ALWAYS CHECK FOR THE CORRECT RING END GAP SPECIFICATIONS. RING GAP CAN BE MEASURED WITH A FEELER GAUGE WHILE THE RING IS SEATED LEVEL IN THE CYLINDER. RING GAP SHOULD BE AROUND 0.4% TO 0.5% OF THE PISTON DIAMETER.

**THE SECOND RING SHOULD ALWAYS BE LARGER THAN THE GAP IN THE TOP COMPRESSION RING.
DUAL AND SINGLE RING GAPS RANGE FROM 0.254MM - 0.635MM**

OIL RINGS DO NOT NEED TO BE CHECKED FOR GAP SPECIFICATIONS OR BE MODIFIED.

INSTALL THE RINGS ONTO THE PISTON, STARTING WITH THE OIL CONTROL RING (FOR 4-STROKES). DO NOT SPREAD THE RING OUT TO FIT OVER THE PISTON, IT WILL BREAK. INSTEAD, PUT ONE SIDE OF THE RING INTO THE TOP RING GROOVE AND WORK IT AROUND UNTIL IT IS IN THE TOP RING GROOVE, THEN REPEAT INTO THE NEXT RING GROOVE. REPEAT UNTIL THE RING IS IN THE CORRECT POSITION ON THE PISTON. ALWAYS INSTALL THE EXPANSION RING FIRST, FOLLOWED BY SCRAPER RINGS. BE SURE NOT TO ALLOW THE EXPANSION RING ENDS TO OVERLAP. CHECK FOR THE PROPER INSTALLATION OF THE OIL EXPANDER RING. THE TWO SCRAPER RINGS SHOULD BE STAGGERED AT LEAST 15 DEGREES OR 25.4MM FROM THE GAP OF THE EXPANSION RING, (ONE GAP TO THE RIGHT OF THE EXPANSION RING GAP, THE OTHER TO THE LEFT OF THE EXPANSION RING GAP). THEN, IF APPLICABLE, INSTALL THE LOWER COMPRESSION RING AND FINALLY THE TOP COMPRESSION RING. STAGER THE COMPRESSION RING GAPS 180 DEGREES. AVOID HAVING THE GAPS OF ANY RING IN THE CENTER OF THE PISTON ON THE INTAKE OR EXHAUST SIDE. INSTALL ONE WRIST PIN CIRCLIP, THEN LUBE AND INSTALL THE WRIST PIN INTO THE PISTON AND UPPER CONNECTING ROD, THEN INSTALL THE OTHER CIRCLIP. CAREFULLY INSTALL CIRCLIPS WITHOUT BENDING OR DISTORTING THEM. WE RECOMMEND INSTALLING THE WRIST PIN CIRCLIPS WITH THE OPENING AT THE 6 OR 12 O'CLOCK POSITION.

PISTON RING GAP ORIENTATION

