

Installation Instructions

Note: Head gasket bore opening should always be larger than the cylinder bore opening.

Steps

- 1. Thoroughly clean and degrease block and cylinder head sealing surfaces.
- **2.** Inspect head and block surfaces.
- **3.** Maximum allowable warpage: .002" across shortest section.
- **4.** Finish Recommendation: 30-80 Ra (roughness average).
- **5.** Gouging: Aluminum surfaces must be free of deep scratches, gouges, or depressions
- **6.** Chase engine block threads with a thread tap, threads must be clean for accurate torque readings. Unclean threads may result in gasket failure.
- 7. Inspect new head gasket to insure no damage in shipping. Polymer sealant coating should be uniform over gasket body surface without scratches or scuffs. Stainless steel cut rings should be circular, lay flat without bends or scratches.
- **8.** Use care in handling; Vulcan Cut-Ring head gaskets have a proprietary sealant coating that can be damaged by excess handling. Stainless steel cut rings have a top (grooved) side and bottom (flat smooth) side, be sure not to damage grooves on top side of Cut-Ring.
- **9.** Use no sealant; additional sealant will negatively affect sealing performance of head gasket body and Cut-Rings.
- **10.** Use new fasteners and lubricate (moly lube is preferred) threads, underside of bolt heads, nuts, and upper side of washers.
 - a. Install composite head gasket body onto engine block using dowel rings to locate head gasket correctly. Important: make sure each head gasket is properly positioned regarding coolant, oil pressure and oil drain passages.
 - **b.** Install Cut-Rings by simply placing into the bore openings of the gasket body **-USE NO ADHESIVE**-Cut-Rings are to be installed with **RIDGES UP – FLAT SIDE DOWN** as illustrated above.
- **11.** Torque specifications and sequence; follow cylinder block and fastener manufacturer recommendations. Failure to do so may prevent fasteners from reaching correct preload leading to gasket failure.
- **12.** Start engine and allow it to reach operating temperature. Check for engine leaks (fluid or vacuum). If there is a leak, stop the engine, let it cool and find/fix cause of leak.
- **13.**Re-Torque head bolts (engine cold) according to block manufacturer instructions; not required but always suggested on racing engines.