## Installation Instructions for: Pro Copper ("P" Prefix) Head Gaskets



For best results SCE Pro Copper Series (P prefix) Copper Head Gaskets should be used with sealant (if liquid cooled use Copper Coat, SCE p/n G1612) and o-ringed block or heads.

- 1. Before installing the gasket, perform a visual check to insure that no damage occurred during shipping, the gasket(s) should be flat and free of scratches.
- 2. SCE Copper head gaskets are annealed in a vacuum oven after punching to provide soft malleable gaskets which are ready to use, do not use a torch to soften the gaskets.
- 3. Pro Copper series head gaskets (P prefix) require the use of a sealant for coolant and oil passages and o-ring combustion seals installed in the head or block. (P/N 31542 o-ring kit).
- 4. If you are installing o-rings make sure that the o-ring diameter and location accommodates both bore opening and combustion chamber shape. This will determine the minimum inside diameter of the o-ring.
- 5. If the combustion chamber or bore is so large that o-rings must be placed less than .100" apart between cylinders, it is advisable to use a "figure 8" pattern for o-rings (see figure #2). This allows for more even clamp load over the entire head surface.
- 6. Recommended o-ring protrusion is not more than 25% of gasket thickness. Example: Gasket thickness .043", o-ring height is .008" to .010". Gasket thickness .050", o-ring height is .010" to .012". NOTE: For extreme boost or heavy nitrous an O-ring-Receiver-Groove arrangement is recommended (see figure #3). When using a receiver-groove the wire may be higher than 25% of gasket thickness; wire height & width determines receiver groove depth & width by maintaining the relationships in the figure 3 illustration.
- 7. Good engine building practice requires clean flat surfaces and clean head bolt threads. If threads are tapped through the deck, use care in sealing threads to prevent coolant migration up the bolt.
- 8. As with any performance application it is strongly recommended that head bolts be re-torqued. Run the engine to operating temperature, shut down and allow it to cool completely. With the engine cold, follow the recommended torque sequence, one bolt at a time back the fastener off just enough to relieve the friction set, then re-torque to specification.

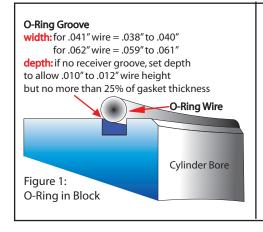
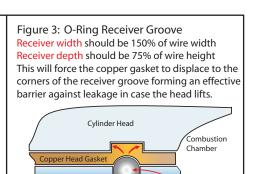


Figure 2: "Figure 8" O-Ring Example
The Figure 8 pattern is used for large bore engines where deck surface between bores is less than .200".
The machined grooves intersect between bores (arrows) where a continuous O-Ring wire is installed, then smaller pieces of wire are fitted tightly at intersect points.

SCE Gaskets, Inc. www.scegaskets.com



Stainless

O-Ring Wire