



RACE ENGINE SOLUTIONS

POWER ENGINE DESIGN

Installation of your SCE/RES ICS Copper Gaskets

In this document I will discuss the correct way to install this head gasket on your VG series platform. It is vitally important you follow the instructions closely to ensure proper seal. This gasket requires a bit more work to seal correctly so please if you are not sure if you are able to install this gasket please call us so we can help walk you through the process as needed.

Tools Needed:

Three Bond 1207 Silicone

Dowel pin removal tool

Acetone or Brake Clean

Straight Edge

Paper towels

Tq Wrench & assorted sockets needed

First thing to ensure is that both deck surfaces on both the block and the heads are verified flat, clean & dry. You can check the flatness of each deck by using a straight edge to verify your deck surfaces. If you're block or heads have never been surfaced we highly suggest you get this done to ensure you are not installing this gasket set on a warped/distorted deck. We are not responsible if this gasket doesn't seal due to installation error or refusal to abide by these instructions. If your block and heads have been surfaced you will need to check them before moving forward. .0015" deviation is what we will consider acceptable in terms of validated flatness.

We are not Ra specific on surface finish due to the method of installation. For this type of gasket its actually better if you have a little rougher surface finish to help bite and grip the gasket for proper sealing. If you have your deck surfaces glossy like a mirror etc you will be advised to use a jitterbug or mouse sander to texturize the deck surfaces to promote a proper bond surface for the gasket.

First step: Verify straightness

Second step: Wipe down all deck surfaces with acetone or brake clean several times till the cloth or paper towel wipes clean with no residue/dirt/debris left on the cloth.

Third step: Ensure all deck dowels are removed from both sides of the block deck surfaces. You will reinstall the dowels midway through this installation process.

Fourth Step: Apply Three Bond 1207 silicone in little dabs all over the deck of the block. Once you have dabbed the silicone all over the deck of the block you will then take your finger and begin to smooth/dab the silicone to spread it out evenly all over the deck surface. It is vitally important you apply silicone around every water/oil port on the deck. DO NOT get excessive with the silicone. You are only needing to apply enough to seal correctly with as little squeeze out as possible. Excessive squeeze out can/will enter into your oil circuit & water circuit. Be mindful of the silicone amount. The importance of using this specific silicone is to grip the gasket and maintain it in place under severe load. This also eliminates any need to for a hot re-torque step to seal the gasket & ensures all fluid transfer areas are sealed properly. The silicone will bond the gasket to the deck of the block extremely well.

Fifth Step: Wipe both sides of your new SCE/RES ICS Gasket with acetone and or brake clean to remove all soils/debris. You MUST install this gasket dry and free of any debris/soils. Vitally important!

Sixth Step: Install your dowel pins and 2 head studs to help guide the gasket down properly. I typically put a stud in each opposite opposing corner to help install things. So a stud in the top left corner and another stud in the bottom right corner.

Seventh Step: Fit head gasket onto deck of block ensuring you don't get anything on the gasket during installation. Once gasket is down onto the deck guided by the studs and located by the head dowels you will lightly press the head gasket down with your fingers to ensure its sticking to the silicone.

Eighth Step: Grab your Three bond 1207 silicone and do the same as you did to the deck of the block but now to the top side (exposed) side of the copper gasket. You will dab the silicone like before and then go back over the silicone with your finger to spread the gasket material around ensuring you're covering all water/oil ports. REMEMBER....DO NOT GET liberal with the silicone. A little can go a long ways. The goal is to put a good thin coat all over the top side of the gasket. Once you've spread the silicone around all over the top side of the gasket you are ready to install the cylinder head.

Nineth Step: Wipe your cylinder head deck surface down one last time with acetone/brake clean and wipe clean/dry. Now begin to install the cylinder head on top of the copper gasket. Be careful not to drop the head down onto the gasket. Once you have the head down and located on the dowels you can then begin to install the rest of your head studs. Once all head studs are fitted you will rely on your torque sequence and tq figure to fasten the head down.

Tenth Step: Repeat this process for the other side and final install your heads complete.