

PORTING KENNE BELL TWIN SCREWS. GOOD OR BAD?

We obviously cannot force anyone to refrain from “diddling” with our superchargers, but we will not under any circumstances encourage or endorse ANYONE to “port” our products. So, let’s stop this right now, before it gets started and our customers waste a lot of money. First of all, “porting” will void the warranty and can create serious problems for our customers. We do not recommend changing ANYTHING on these superchargers. We perceive that to be our job. The Kenne Bell Twin Screw Superchargers are FAR more complex than porting Eatons, heads or throttle bodies, which are “child’s play” as compared to Twin Screw flow and temperature technology. What’s done to the Eaton’s or Lysholm’s is none of our business. Cast aluminum is rougher with MORE jagged edges than billet. Consider this: Our Twin Screws cannot be accurately tested for temperature, volumetric and adiabatic efficiency on a simple flow bench. Oops! Instead, testing and development requires a special 150HP flow bench with all the necessary monitoring sensors and the rotors SPINNING at 10,000-25,000 rpm UNDER FULL BOOST! Our Twin Screws can’t be accurately tested on a common static flow bench. The Twin Screw is an air compressor and not a “blower.” There IS a difference. One must fully understand the basic principles of the Twin Screw and the relationship between the rotating rotors under pressure and the inlet and outlet plates. For example: We use different CNC machined billet inlet and discharge passages for the various sized superchargers. And there are good reasons why part of the inlet plate opening is BLOCKED OFF and why we actually REDUCE the discharge openings on some models. “Rounding” certain areas will hurt efficiency, not help it. There is a before and after photo of a radiused discharge. Never do this to a KB - NEVER. Then there’s rotor length, helix angle, bore size, etc., etc. and how they affect flow AT DIFFERENT BOOST LEVELS and PRESSURE RATIOS. Simply stated, there is more to the Twin Screw than hogging out and rounding off openings and drilling some extra holes. We are perfectly capable of analyzing our own product modifications. We’ve “been there and done that” already. Our advice. Don’t let anyone screw with your Kenne Bell Twin Screw i.e. “porting” or “rebuilding.” We apologize for being so blunt, but our #1 concern at Kenne Bell remains our customers.

P.S. No, “the Twin Screw doesn’t move a large volume of air due to a high pitch rotor design.” That is not true. Also, ALL blowers “run hot (hotter) when boosted up” and porting our Twin Screw doesn’t “reduce the heat” and “increase performance” - nor does it “add life” to our Twin Screw. We may all like to think there is some magic undiscovered porting science here, but - the choice is yours.

Rebuilding? This requires special tools and fixtures. We use different rotor clearance depending on the kit. And your warranty isn’t affected.

The Kenne Bell is 100% CNC machined billet parts. Who in their right mind is going to have someone grind on these precision flow passages?

Do you really want someone grinding on your Kenne Bell billet Twin Screw?

