From : Jeff Posto December 2009 Posto@comcast.net



1

I am quite enthusiastic about this product and have conducted lots of collective purchasing over 6 years now. I have excellent credit references, I always deliver. Sorry if this sounds like a promotional pitch,

I have answered questions numerous times and prepared this reply below regarding the Stromung RSS exhaust for Audi S4 Sedans and Avants 1992-1997. I started with Gen 2 and have provided product development input to Gen 3, Gen4, and now Gen5.

I am certainly happy to share my knowledge and experience, whether or not you decide to do this now. Modifying these cars is additive I have found, because one step leads to the next. uhhh be careful, especially if you DRIVE an RS2 equipped S car, that will seal your fate!

Most experienced S car guys will insist the Audi OEM RS2 turbo, RS2 EM, RS2 Injectors, software and possibly MAF are essential to get the full effect and safe reliable run time for your car.

Nowadays (2009) the turbos of choice are Garrett and large KKK with tubular steel manifolds and standalone Engine management. At this level an improved exhaust is considered accepted practice. For really exotic and well made systems, see Saridea out in Colorado.

Audi S4/ S6 Exhaust:

The RS2 exhaust manifold or a Tubular manifold is required for tuning applications that go beyond 350 BHP. See <u>www.motorgeek.com</u> (expert class) and <u>www.s-cars.org</u> for the complete story on why the RS2 EM exhaust manifold is recommended.

The exhaust system is the pipes that connect to the turbo, carry the gases to the tail of the car. The exhaust system from Audi is dual 2.25" outside diameter and has some compromises. It's heavy and we thought the flow characteristics could be improved.

The Audi OEM system weighs 120 pounds

The current (June 2009) <u>Stromung Gen #5 weighs approx 58</u> pounds and is fabricated from Automotive stainless type #409. The flanges are nickel plated to assure long life.

<u>Generation #5</u> introduced the latest Metal honeycomb catalytic converter from Magnaflow and a flex bellows on the downpipe.

This cat offers a significant increase in flow and long life compared to the previous ceramic cat. See this link for details: Look for the 3 " version and for warranty information.

http://www.car-sound.com/02product/universal/549spun.asp Gen 5 also provides a flex bellows which allows strain relief and long life.



Gen 5 downpipe is pictured here.

The Gen 5 catalytic converter is pictured next. Supplied by Carsounds

2

The Stromung installation alone will provide approximately a 62 pound weight reduction.

The Gen 5 rear section is the same as Gen4, & Gen 3 shown here. Disregard the DP and center pipe photos below, those types are not in production any longer.



Dyno measurements of a Stromung exhaust alone show very little actual HP gain. I can relay the field experience over 8 years and tell you... What it provides is faster Response, to a gas pedal input. What I mean is the rate of change of power build is faster than same engine with an OEM exhaust. Some refer to this as lowering the boost threshold.

Chassis servicing is easy now, since the 3 piece Stromung can be removed for access to the rear end, transmission, brake lines etc.

Sound quality is the final noticeable benefit with the Stromung exhaust. A deep burble at Idle does not resonate in the cabin under driving conditions. However at Wide Open Throttle, it certainly roars and complements that well tuned AAN engine you just spent 5 grand on!

Gaskets: Many people ask for spare gaskets: Stromung ships all systems with gaskets and a bolt kit. Naturally people find they need to purchase additional gaskets.

1: Best source is these reinforced gaskets, that will last longer that the units provided. http://www.machv.com/32exga.html I purchased the ones with the metal ring. About \$7 each plus shipping

3

2: <u>www.verociousmotorsports.com</u> also sells a variety of gaskets and flex pipe.

Stromung History according to Jeff Posto 2007

Stromung originally built custom systems for TAP, I refer to this as <u>Generation #1</u>. But because that system boomed and droned so much, the boys in Colorado were cutting and splicing new resonators to attempt a noise reduction. I said to heck with THAT and I (personally) convinced Stromung to sell to the S car list in group's, because nobody wanted to buy from TAP, 5 years ago.

I arranged 'my' first Group Buy in 2001, little did I know then I was assisting some of the all time great people who discovered and documented mods to the C4 chassis Audi. Frank Amoroso, Mike Pedersen, Phil Ackley, Charlie Smith, Bruce Mendel, Tom Saltino, Bruce Everett, to name a few.

<u>Generation #2</u> circa 2002 (also known as The "SS") was my first attempt working with Stromung to reduce the boomy sounds and drone associated with aftermarket exhausts. I tried numerous resonators from Borla and Magnaflow, and chose this topology below and submitted for production.

I really was not satisfied with the audio levels to be honest because of a definitive droning at 3000 RPM.

This Gen #2 revision can be identified because BOTH the muffler and resonator are Magnaflow products.

Photo of Gen #2; A.K.A "SS" as in Sweet System!



You can see the insignificant resonator above, located just before the muffler. That 'tube' Did not attenuate anything! My daughter called my S4, The Boom Car and would not ride in it with Gen #2.

<u>Generation #3</u> was the period I figured out the audio qualities (no boom, no droning) without compromising high flow. This is accomplished by the custom muffler built for our S-cars and only available from Stromung. The primary difference with Gen 3 is the downpipe, shown here to complete this history lesson.

I fit this with a remote phone in ear, car up on jacks, with Stromung's owner (Scott Taylor) asking me dimensions measured off a Gen #2. Stromung figured out the secret to flow and low noise was to fit the largest dual chamber muffler possible in the OEM location.

I rec'd my Gen#3 rear section and anxiously bolted it on my 1993 S4. First ride up the driveway and BAM! I knew we had nailed the audio issues of earlier systems. I sold many of these systems it is widely used. Photo of Gen #3

5

5



Stromung is surprised this Audi C4 body style sells as well as it has. I convinced Scott T that these owners are serious modders and he should build this system for many years.

Generation #4 circa summer 2003

The Stromung Gen #4 is THE best 3" complete mandrel bent system for the Audi C4 chassis. Also fits the 1991 200-Turbo 20V Sedan. (Not the 1991 Avant I am told)

The product innovation is the smooth taper downpipe. See Charlie Smith's site for photos. I moved the wastegate entry tube 'downstream' as the OEM setup placed the wastegate pipe at the worst possible location, that first 90 degree elbow after the turbo hotside. We also added a second O2 sensor bung for EGT analysis.

> http://elektro.cmhnet.org/~audi//
> Then scroll down to Stromung Stainless Exhaust
> New System: RSS

Auditory: This Gen #4 system does not drone nor boom in the cabin. Best way to describe it is, riding at 75MPH, Windows up, you can carry on conversation with passengers easily, you hear the 'engine' noise not the Exhaust. Idle is a deep tonal rumble, with Wide Open Throttle being sharp and noticeable.

An Optional Track Pipe is available, which removes the Magnaflow Catalytic converter. Installation of the Track pipe is accomplished by removing the center section with Cat, and replacing center section with Track pipe. 4 bolts, 4 nuts.

Photo of Stromung Gen #4.

* Note : This particular photo is a pre-production unit I used for fitment test. The downpipe TODAY (2008) actually is built with "2" braces at the Wastegate tube location.



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7

>Features: "Stromung Gen # 4 for 1992- 1997 Audi S45 and S6 Sedans, Avants.

>* Improved material for durability, fabricated from stainless #409

>* Plug and Play with existing systems, all previous models Sedans and Avants

>* Full 3" with quick taper from Turbo outlet to downpipe.

>* Fits K24 and RS2 turbos manufactured by KKK.

Note * (Garret GT hybrid turbos are not Plug and Play and require modification to the right side steering arm)

>* Wastegate moved downstream, 14 inches.

>* Dual O2 sensor bungs, one reserved for Exhaust analysis gauges

> * Ships with Stromung (2) Gaskets and 4 bolts, 4 nuts.

The <u>Generation #4</u> Downpipe photo is shown below. The wastegate tube is supported in 2 locations with stainless bracing.



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>References: Write if you want my references. I think my credit and >trustworthiness is well established now, but understand newbies must do >their own assessment.

>Orders are fulfilled on a first paid, first shipped basis.

<image>

>Jeff Posto