

## 997 GT3 Exhaust System (same design concept as 991 GT3)

### Summary:

**Valves closed:** Gasses flow through the side muffler and then through both the upper and lower portions of the centre muffler, to exit.

**Valves open:** Gasses bypass the side muffler and flow directly into the lower portion of the centre muffler, passing straight-through to exit.

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### Side (front) silencer (valve is on 63mm lower outlet)

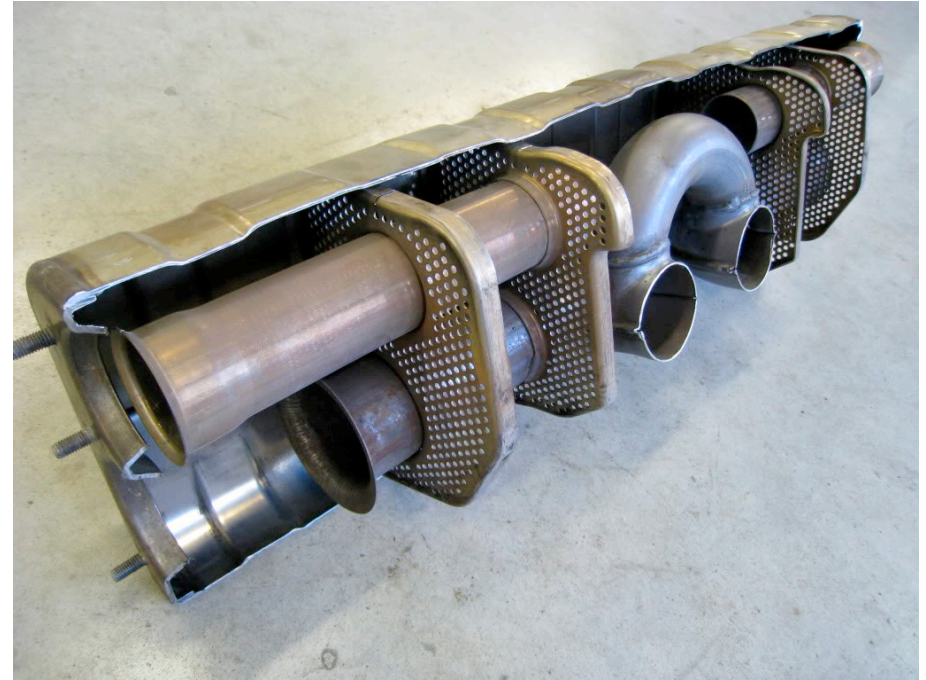


**With the exhaust valves closed,** gasses enter the side muffler from the cat via a 20mm radial gap in the 63mm inlet pipe; the valve is positioned beyond this gap and prevents gasses from flowing straight through the 63mm pipe. Gasses are then expanded in the side muffler, passing through a short piece of 50mm tube in the first baffle and the perforations in the second baffle before exiting the muffler through the 50mm upper outlet pipe.

The 50mm internal and upper outlet pipes have a cross sectional area that is 61% smaller than the 63mm pipes; above 4000 rpm or so the 50mm pipes are too restrictive and the valves are opened.

**With the valves open,** the majority of the gas flow is unrestricted and passes straight through the lower 63mm pipe, with only a small amount of flow passing through the restricted side muffler/silencer.

### Rear (centre) muffler (50mm upper and 63mm lower inlets)



**With the valves closed,** the exhaust gasses that exit the side muffler via the 50mm upper outlet pipe enter the centre muffler through the upper inlet 50mm pipe. Both LH and RH gas flows join in the central chamber of the centre muffler, allowing further expansion. Gasses are then expanded in the muffler, flowing through the perforated baffles and into the lower 63mm pipes (which are joined by a smaller diameter tuning or balancing pipe) through to exit (and exhaust tips).

**With the valves open,** the exhaust gases enter the muffler via the lower 63mm (having already effectively by-passed the side muffler) with very little restriction. Whilst some expansion is possible, flow is mostly straight through to exit (and exhaust tips).