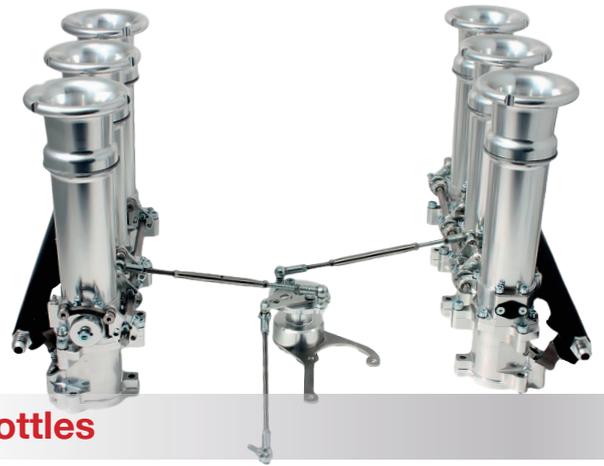


NEW DESIGN

Throttle Bodies for Porsche application

AT Power have recently been working with Reno Rennsport on developing 'Shaftless' Billet aluminium Direct-to-Head Throttle Bodies for the Porsche 993, 964 and 911 engines.



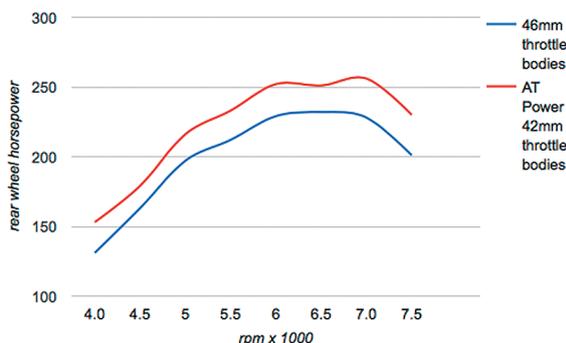
Porsche 911 **Throttles**



Porsche 964/993 **Throttles**

Dyno Data

Porsche 3.0 liter Euro engine, 46mm aftermarket stacks vs AT Power Shaftless throttle bodies.



Comparison is between two identical stock Porsche euro spec 3.0 liter engines. Each motor also has 1.5 inch headers and racing mufflers. Both engines have the same fuel injection system and ecu. One has a reputable aftermarket throttle body system with 46mm diameter shaft butterfly. The other contains the AT Power designed throttle body system with 42mm shaft-less butterfly. Both runs were done in same ambient conditions on the same wheel dyno. All other specs on the cars are identical.

COMING SOON!

We are also currently working on a replacement Drive-by-Wire throttle body for the modern Porsche 911 engines.



This will be designed as a plug and play replacement for the OEM Throttle body, and will match all the OEM voltage outputs, meaning it will work on your standard ECU with no remapping.



AT Power Throttles Ltd

Unit 9 Chestnut Drive, Wymondham Business Park, London Road, Norfolk NR18 9SB

For US Enquiries

Reno Rennsport, 6 Cal Ln, Sparks, Nevada, 89431

t 01953 857800

e Ben@atpowerthrottles.com

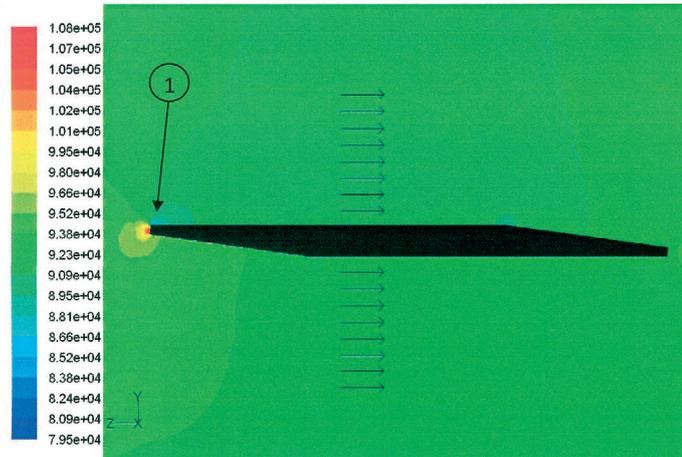
t +1 775-331-4366

e Brian@renorennsport.com

Flow Data

AT Power Shaftless Throttle

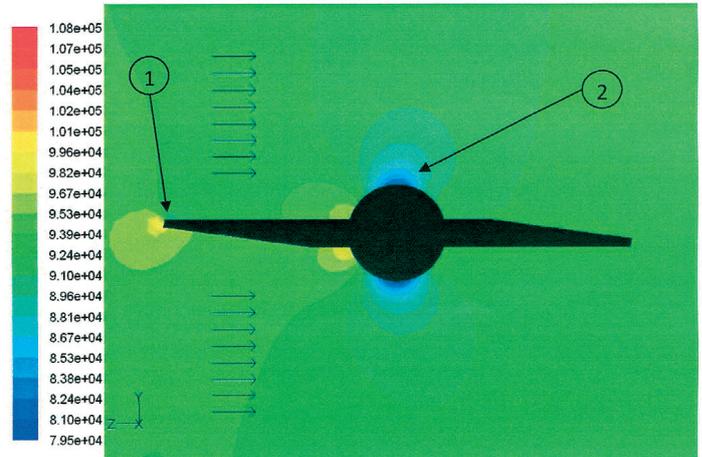
- Butterfly knife edge on leading and trailing edges minimising air flow separation.
- Minimal butterfly thickness maximising volumetric efficiency.
- No shaft or screws giving 99.5% the same flow efficiency as having no butterfly at all.
- Higher airflow velocity resulting in higher volumetric efficiency, horsepower and torque.



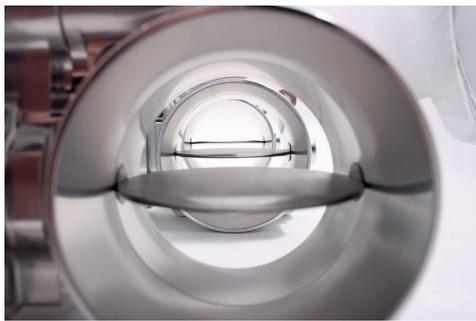
Contours of Static Pressure (pascal)

Traditional Shafted Throttle

- Shaft and butterfly fixing screws causing air flow separation and stagnation areas.
- Reduced volumetric efficiency.
- Reduced airflow velocity resulting in reduced volumetric efficiency, horsepower and torque.



Contours of Static Pressure (pascal)



One area where traditional butterfly throttle bodies are lacking is that the butterfly valve is held via a thick shaft and two screws. The shaft and screws cause disruption to the airflow, reduce flow velocity and hamper the performance of the engine. To rectify this problem, AT Power developed an award-winning design concept where the blade is supported at each end and has no shaft in the throttle bore. The thickness of the blade is reduced to the minimum achievable, with knife-edged leading and trailing edges and the rotating shaft does not ingress into the airflow passage.

Our patented technology maintains all the benefits of the butterfly throttle system while improving the part and fully open airflow characteristics. Our 'Shaftless' system can improve flow by up to 10% on common throttle body sizes. In fact, tests show an AT Power throttle has 99.5% the same flow as having no butterfly at all. The minimal disruption caused by our 'Shaftless' blade allows us to specify a smaller throttle bore, resulting in higher airflow velocity resulting in a higher volumetric efficiency.

The Shaftless Difference

Customer Testimonial Reno Rennsport:

“ The shaftless throttle body design is an amazing improvement over its predecessor. Not only do they work far better, but the details are incredible. From the weight saving aluminium parts to the bevelled blade and gorgeous air horns, this is an amazing product. We compete in one of the most competitive spec racing series in the US for air cooled Porsches (Spec 911) so any legal edge is of huge value. We have used just about every induction system on the market for a 911 and this is our favourite. The throttle response and power gains are truly impressive. Thanks AT Power. ”

Brian Lowrance, Spec 911 Racer
Partner- Reno Rennsport

Technical Specification

Direct to Head Throttle Bodies for Porsche Specifications

- Unique patented Shaftless Technology
- Vastly improved throttle response
- Increases in horsepower and torque
- Manufactured from billet aerospace-grade aluminium
- Choice of inlet lengths
- Choice of TPS sensors
- Choice of 18 anodised colors
- Full set up advice and technical details

Delivered fully assembled, with a billet aluminium fuel rail, choice of linkage options, choice of inlet lengths and calibrated for your choice of TPS.