



Honda CBR 600 RR (2003)

Racing / Evolution Exhaust System

Akrapovic Racing / Evolution Exhaust System

for the Honda CBR 600 RR (2003)

The course of events in the GP1 class also has its more commercial influence. Motorcycles intended for the general public are increasingly oriented towards and developed on the basis of advances made in the GP1 class. The new Honda CBR 600 RR is a good example of visual similarity to the RC 211V. It has undergone some substantial changes compared to the old version. Technological upgrades to the engine, frame and cowling make for an excellent final product and a major source of competition for the rest of the manufacturers in the WSS racing class.

GOAL

The element which most clearly distinguishes the new Honda CBR 600 RR is the exhaust system led under the seat. Up till now this has been the exclusive province of the Italian stallions, and has obviously become the trend of the times at Honda. And we at Akrapovic have proved that we can keep up with the times and fulfill the wishes of our customers. We have developed Akrapovic RACING and EVOLUTION systems to make the new 600 even more potent and competitive.

ABOUT AKRAPOVIC RACING & EVOLUTION SYSTEMS

The intention of the new Honda CBR 600 RR is clear from the RR designation at the end of the name. And so is the intention of the Akrapovic EVOLUTION and RACING exhaust systems. They show their true nature at the top end of the rpm range, right where racers spend the greatest amount of time when seeking the ideal line around the track.

Both the EVOLUTION and RACING systems were developed on stock set-up motorcycles (frame and engine) and do not require any additional modification. They are also identical in their construction. They differ only in materials, which is reflected in the weight of the system. Due to the use of titanium, the weight savings are larger with the EVOLUTION system.

As mentioned, the stock exhaust system on the 2003 Honda is mounted under the seat. This feature demanded a great deal of work by the Akrapovic R&D department, but their persistence and know-how resulted in a product which is fully deserving of the Akrapovic brand name.

The EVOLUTION and RACING systems are composed of conical elements set up in 4-2-1 construction and welded together with Akrapovic trademark filigree welds. The conical sections guarantee maximal exploitation of the flow of the exhaust gases.

Both systems come with interference crossover tubes installed between the header tubes, as the results of testing on prototypes indicated improved results with this configuration. The tubes in the header assembly have free-floating joints held together with high-quality silicon-shielded springs, which ensure that the system is held securely in place. The system's special under-the-seat mounting is composed of two elements. The link pipe is an independent conical unit which leads like a snake from the collector upwards under the seat. The link pipe is attached to the collector with a free-floating connection, and is attached to the muffler in the same way. Honda uses a single muffler. It is attached to the frame under the back of the bike with the familiar Akrapovic carbon-fiber clamp, which performs its function superbly.

NOTE: the carbon-fiber clamp must be oriented correctly during installation. The clamp must be right-offset (looking from the rear of the bike forwards). See instructions!

As is usual with our exhaust systems, there is a choice of materials for the muffler outer sleeve. You can choose either the carbon-fiber version which gives a more "racing" style feeling, or the refined satin sheen of titanium. In both cases the inner perforated sleeve, front rosette and end cap are made out of titanium. The performance and color and depth of the sound are the same in either case; the only difference is in the appearance.

Technical specifications of Akrapovic exhaust systems and related products subject to change without notice.

	stock	AKRAPOVIC		difference	
weight comparison	10.62 kg	S.S.	titanium	stock - S.S.	stock - titanium
		5.50 kg	4.02 kg	5.12 kg	6.60 kg
max. rear wheel power	108.6 HP / 13500 RPM	112.5 HP / 123800 RPM		4.5 HP / 14300 RPM*	
noise measurement	95 db / 6500 RPM	100.8 db / 6500 RPM		5.8 db / 6500 RPM	
legal for street use	NO				

*MAXIMUM MEASURED POWER DIFFERENCE

Measurements of the Akrapovic RACING system on the Honda CBR 600 RR:

•power:

The character of the exhaust system can be seen clearly from both the power and torque curves, as they both perform slightly worse than the stock exhaust up to the middle of the rpm range. The real effect begins at around 7200 rpm, where the Akrapovic system begins to show its true colors. The improvement over the stock curve is especially apparent at the top of the range and in the overrev region, i.e. the range from around 12000 to 15000 rpm. This is where the system achieves max. power – 112.5 HP and max. increased power – 4.5 HP.

•torque:

Similar to the power curve, the torque is a bit worse than the stock figures up to around 7200 rpm. After this the torque is increased up to the very end of the curve. And the torque band is wider, which results in increased usable torque. The filling of the drop-out from 9000 to 10200 rpm is also a welcome improvement.

As already mentioned, the two systems differ in materials. The RACING system is made of high quality stainless steel, while the EVOLUTION is made of state-of-the-art titanium. The difference is felt in the weight, where the titanium takes the prize, while both systems are noticeably lighter than the stock system. The weight savings are nearly 50% of the stock weight in the case of the RACING system and over 50% in the case of the EVOLUTION. All of this is intended to guarantee the highest parameters for the rider.

If you are inclined towards the thrills of racing, then the choice of one of these systems will be the right one. An Akrapovic RACING or EVOLUTION system will offer you performance which is the result of years of experience gained through working with numerous factory and private racing teams. High quality workmanship and materials wrapped into an aesthetic package and embellished with a distinctive sound will turn a lot of heads in your direction. A flash of the red scorpion on the label and the answer will be obvious: an Akrapovic exhaust system.

IMPORTANT: In addition to the above-mentioned RACING and EVOLUTION systems, we also offer an EVOLUTION model exhaust system **which works only in combination with certain tuning components from the HRC tuning kit**. In order to distinguish this model we will refer to it as the KIT EVOLUTION 2.

The Akrapovic KIT EVOLUTION 2 offers identical performance to the RACING and EVOLUTION systems which are intended for motorcycles without additional modifications. The KIT EVOLUTION 2 differs from the above-mentioned systems as follows:

- specially designed rectangular-section link pipe
- all tubes are made of stainless steel

WARNING: if you intend to use the HRC water cooler, the RACING and EVOLUTION systems which are intended for mounting on stock motorcycles **cannot be used**. The use of an HRC water cooler, HRC footpegs etc. requires the use of an **Akrapovic KIT EVOLUTION 2 exhaust!**

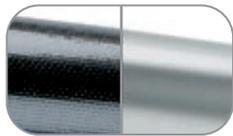
In the same way, The KIT EVOLUTION 2 exhaust cannot be mounted on a stock motorcycle because of interference from the expansion chamber.

The KIT EVOLUTION 2 has a fitting for installing a lambda sensor. The same fitting is also included on the EVOLUTION and RACING model intended for mounting on stock motorcycles.

Product code: S-H6R6L-C, S-H6R6L-T, S-H6RFT6TL-C, S-H6RFT6TL-T,
S-H6E2L-C, S-H6E2L-T

Akrapovic Racing / Evolution Exhaust System

for the Honda CBR 600 RR (2003)



The outer sleeve is available in carbon-fiber or titanium



The header tubes are made of stainless steel (Racing Line) or titanium (Evolution Line)



PHOTO: AKRAPOVIC RACING LINE

Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road Program



ANTI-SEIZING GREASE (EVOLUTION LINE ONLY)



CARBON-FIBER MUFFLER CLAMP

Product code: S-H6R6L-C, S-H6R6L-T, S-H6RFT6TL-C, S-H6RFT6TL-T, S-H6E2L-C, S-H6E2L-T

Akrapovic Racing / Evolution Exhaust System for the Honda CBR 600 RR (2003)



Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road
Program

Product code: S-H6R6L-C, S-H6R6L-T, S-H6RFT6TL-C, S-H6RFT6TL-T,
S-H6E2L-C, S-H6E2L-T

Akrapovic Racing / Evolution Exhaust System for the Honda CBR 600 RR (2003)



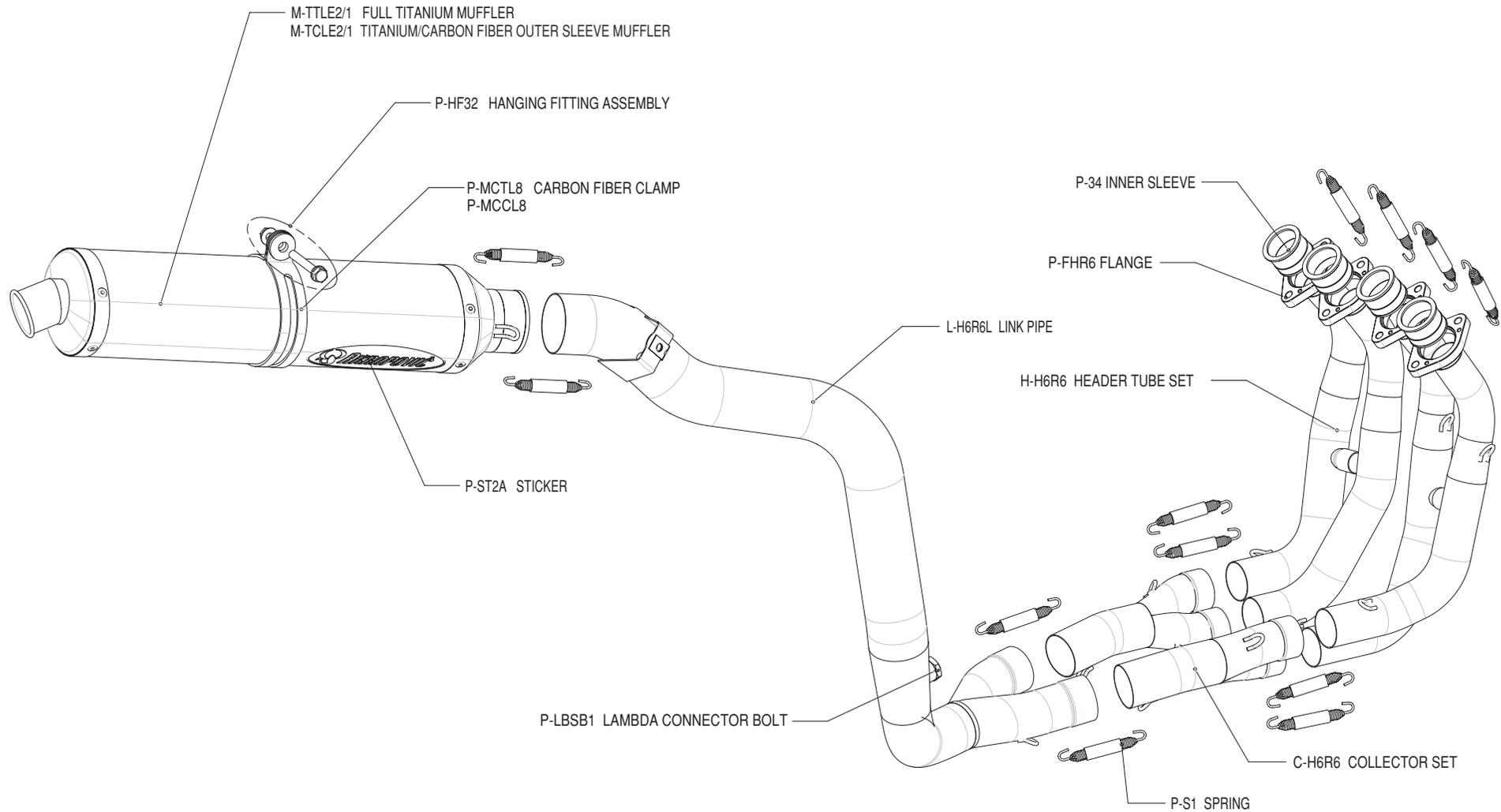
Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road Program

Product code: S-H6R6L-C, S-H6R6L-T, S-H6RFT6TL-C, S-H6RFT6TL-T,
S-H6E2L-C, S-H6E2L-T

Akrapovic Racing Exhaust System

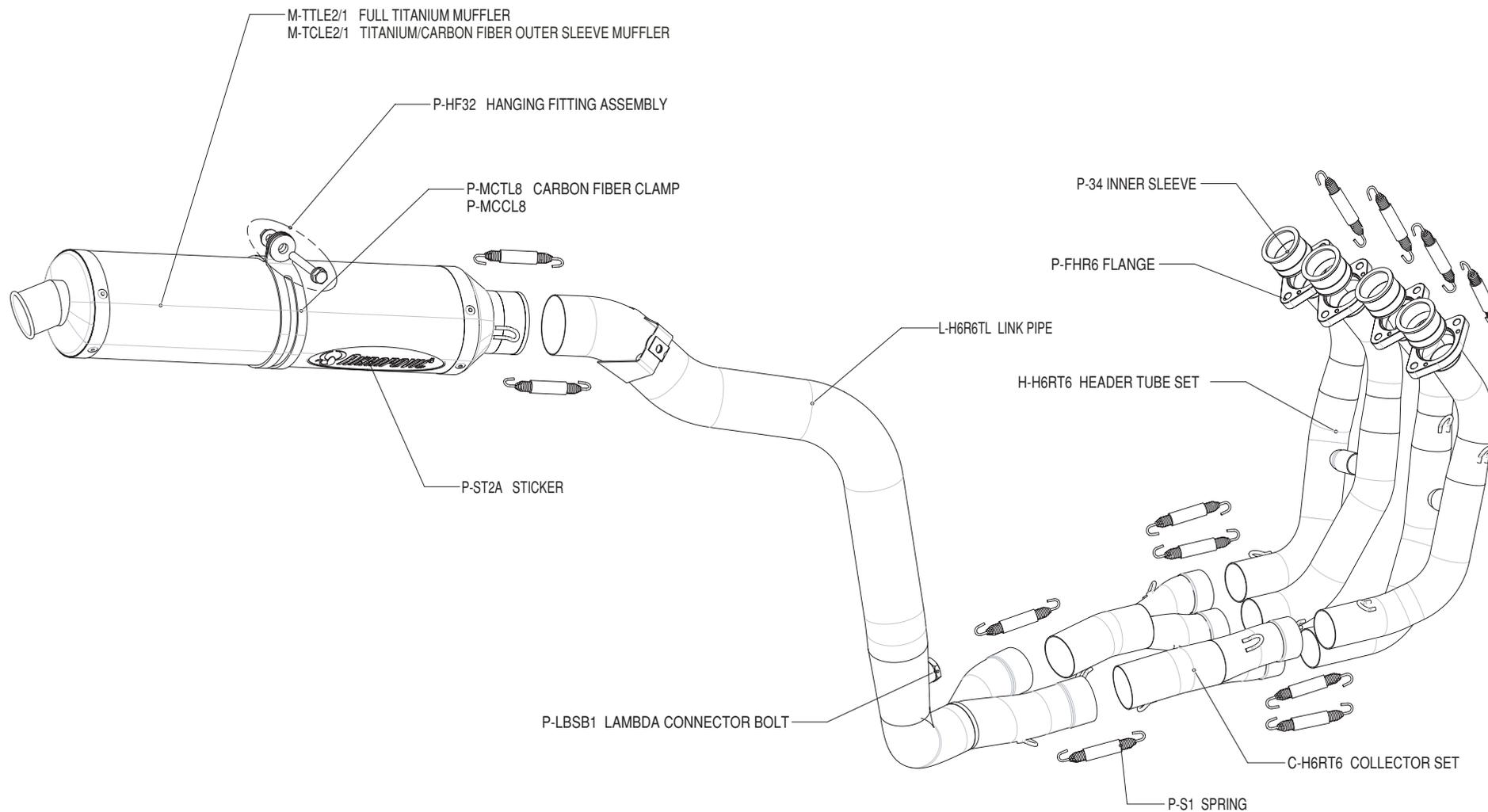
for the Honda CBR 600 RR (2003)



Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road Program

Akrapovic Evolution Exhaust System for the Honda CBR 600 RR (2003)

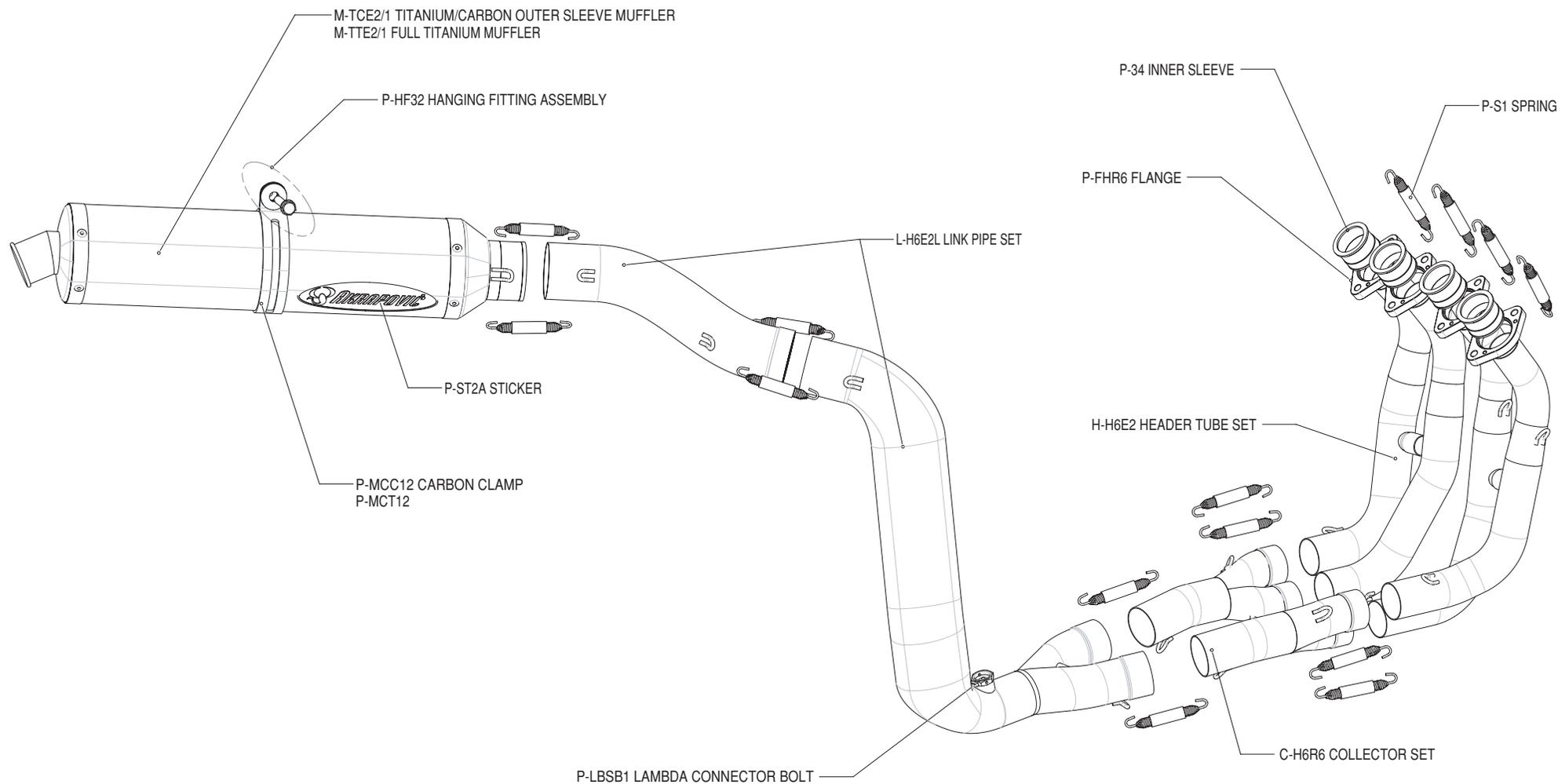


Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road Program

Akrapovic Kit Evolution 2 Exhaust System

for the Honda CBR 600 RR (2003)



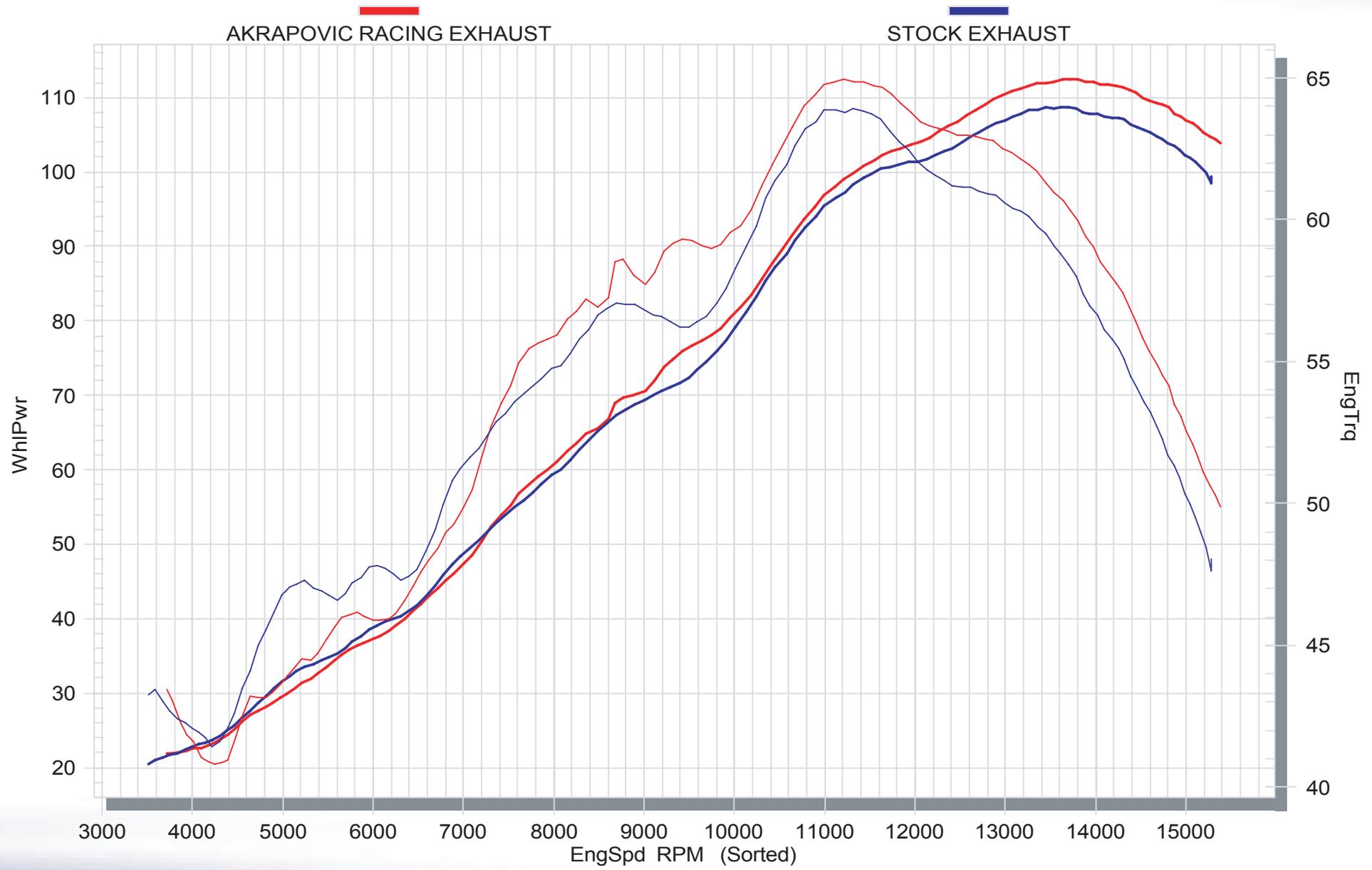
Akrapovic Exhaust System Technology copyright 2003, all rights reserved

Road Program



Akrapovic Racing / Evolution Exhaust System

for the Honda CBR 600 RR (2003)



Road Program

Product code: S-H6R6L-C, S-H6R6L-T, S-H6RFT6TL-C, S-H6RFT6TL-T, S-H6E2L-C, S-H6E2L-T



Akrapovic Exhaust System Technology copyright 2003, all rights reserved