

## HYPERPRO SPRINGS

Read below what Hyperpro say about their springs.

In a perfect world the suspension of your motorbike would react differently every time. The first part of the spring would be supple and would react flexibly to absorb small bumps and irregularities instantly. As the spring compresses, it becomes stepless more rigid so even large bumps and holes in a road surface will not cause the suspension to bottom out. For cost-efficiency reasons, new motorbikes are equipped with linear springs. Compressing the top half of this type of spring takes just as much force as compressing the bottom half. The result is that the top of the spring is in fact too rigid and the bottom too supple. Fortunately, this perfect world does exist. Hyperpro produces progressive springs whereby the first part is easily compressible and compression of will become stepless much harder. We call a rising rate spring. Learn all about the benefits here!

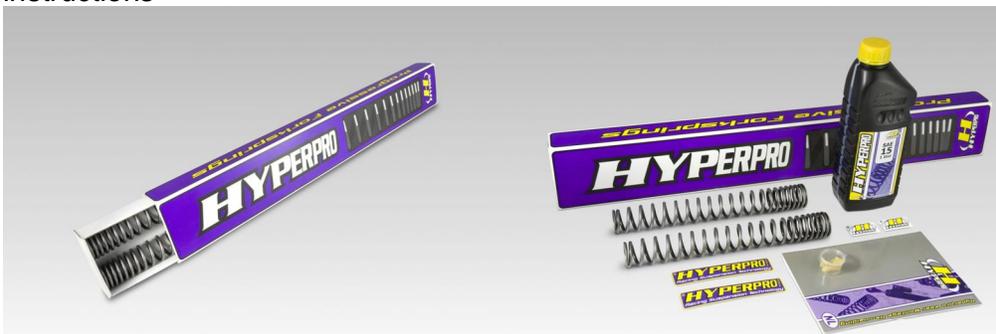
### Front Fork and Rear Shock Progressive Spring Kits.

Spring kits are available separately, with fitting instructions, but achieve an even better result when combined as a Combi Kit, which also includes a bike suspension set-up manual. This is a cost effective way to get the most out of your bike!



### Front Fork Spring Kit

Designed to use the maximum front fork stroke, under heavy braking without upsetting front grip. Our progressive Spring Kit comes complete with fork oil and full fitting-instructions



## Rear Shock Spring Kit

Our progressive rear spring is designed to smoothly transfer engine power to the road whilst controlling the geometry of your machine. This will give you more stability and significantly reduce tyre wear. These springs are not only suitable on the track, but more also on the road. It absorbs irregularities in the roads, and saves you from hitting the bump with passengers at the back or heavy loads.

Rear springs are available in the colors Hyperpro Purple and Black. A very important note is that our range of rear springs fit on the OEM shock. So if the shock is still quite ok, it is suitable to replace only the spring with an Hyperpro spring to improve your suspension with very good result at a very nice price!



## Combitkit

Combining the qualities of the front and rear spring kits, to get the best balance in the bike, together with the full suspension set-up manual, the Hyperpro Combi Kit is the most cost effective suspension improvement package available for your bike.



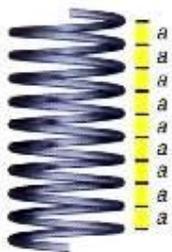
On the road or track HYPERPRO gives you:

- more stability over bumps
- more comfortable riding
- dramatically improved tyre life
- more grip in the dry or the wet
- more confidence, makes you ride more comfortable and/or faster

### **More about progressive spring**

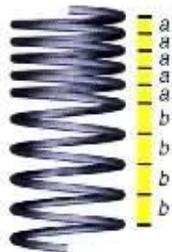
#### **What is Progressive Suspension?**

In a normal spring, the coils are evenly spaced and compress at the same rate. For example, if you have a spring that has ten coils spaced a centimeter apart, and you push down one centimeter on the spring, the entire spring compresses one centimeter and each coil will then be 0.9 centimeter apart.



#### **normal (Linear) spring**

In a two-step linear spring (or one-step progressive), about half the coils have shorter spacing. As the spring compresses, the coils move closer. At a certain point, the shorter spaced coils touch, effectively eliminating them from the spring. You then have a spring comprised of only the longer coils. This "second-step" spring will be much stiffer than the whole spring (the more coils, the easier it is to compress the spring). The result is that you have one set of handling characteristics before the shorter coils touch and then you have another, completely different, level of response after they touch.



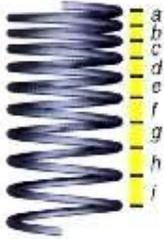
#### **2-step linear spring**

Unfortunately your suspension needs do not come in only two flavors when you ride. They constantly change. In a perfect world, it would take almost no force to start the coil compressing, but then as the down forces grow, you would want the spring to become stiffer and stiffer in response, giving you maximum control, comfort and braking

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## Welcome to a perfect world

Giving you the "perfect world" is what HYPERPRO is all about. Each coil is spaced differently so as the spring compresses and releases, it's characteristics constantly change. When the spring is at rest all it's coils are available and it takes very little force for the spring to compress. As more force is added, more coils start to touch making the spring stiffer. The more the force, the stiffer the spring. The result is a perfect setup in any situation.



## Progressive spring

### Why is this so important?

The benefits of a progressive suspension are almost too numerous to mention. Since the effectiveness of your suspension affects braking, handling, comfort safety and even lap times. HYPERPRO's progressive springs give you a fantastic range of benefits. That is why HYPERPRO has become famous all over the world.

### Improved Braking

With HYPERPRO's constant rising rate springs, you have maximum efficiency when you brake. Here's why: as you apply the brakes, the suspension loads the front tire. This results in the tire biting into the track causing more load. In a normal spring this can result in a "dive". But with HYPERPRO's rising rate spring, instead of too much dive you get increased resistance, giving the tire even more bite. This in turn puts more load on the tire further stiffening the spring and creating a chain reaction of braking and traction. The result is improved braking.

### Better Handling

Whether in town, on the highway or at the track, a progressive spring improves handling performance. Since the spring has a rising rate of resistance, it's very sensitive to small inputs such as imperfections in a road. This means an incredibly smooth ride. However the spring also gives you the stiffness you need during hard braking and turning. The end result is a perfect harmony of comfort and control.

### Better Stability

HYPERPRO springs don't chatter. It's that simple. A stock spring has a specific frequency. If the spring encounters this frequency while on the road it will start to resonate. You feel this as a dangerous and uncomfortable chatter. Since HYPERPRO springs are progressive, there is no single frequency that the spring will respond to and they can't chatter. Your bike will show noticeably improved stability.

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### **Better Road Holding**

A progressive spring means a smooth transition in response to a change in road conditions. Hit a bump and the tire rises quickly at the beginning of the bump then stabilizes and lowers quickly on the back end, all in a fluid motion. This means maximum rubber on the road at all times. In the rain this could be the difference between maintaining traction and sliding. At the track and on the highway this means vastly improved tire wear.

**If you race, think about what it means to get ten more laps out of a set of tires. If you ride on the street, think about the money save by buying one less set of tires.**

### **Always a Perfect Setup**

The more force you put on a HYPERPRO spring, the greater the resistance. This means a HYPERPRO spring will automatically adjust if you put a passenger on your bike. It will also automatically adjust to your weight. If you weigh 50 kg or 150 kg, a HYPERPRO spring gives you a perfect setup right out of the box. HYPERPRO springs even respond to changes in the amount of fuel in your tank!

HYPERPRO springs are an engineering work of art. Backing up this claim is a lifetime warranty against breakage. Each spring is constructed of the finest grade of chrome-silicon wire and is guaranteed not to sag even after 1.000.000 miles of use. Each spring is shot-peened for strength and durability and then polished to reduce friction and eliminate fork oil contamination.

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