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### Why fit a sway bar/ anti roll bar to your vehicle?

There are many reasons, however the prime reason a bar is fitted is to maintain maximum tyre contact with the road. Suspension systems are designed to vary the angle of the wheel and contact patch as a vehicle travels along the road. The optimum contact patch is achieved with the wheel in the vertical position. Braking, body roll, body yaw, squat and dive all cause the shift in contact patch.







### Why fit a sway bar/ anti roll bar to your vehicle?

Manufacturers always build comfort into a vehicle at the expense of ride and handling. Motorsport tuners build handling for maximum tyre contact with the road at the expense of ride.

Sway bars are a tuning device, both for road use and motor sport. They are one of the most effective ways of controlling chassis movement and work by linking the chassis and wheels across the track of a vehicle. The sway bar mechanically attempts to minimise body movement to maintain the wheels in their most vertical position thereby maximising tyre contact patch and grip.

Adding a sway bar or increasing the thickness of a sway bar is therefore a very efficient method of suspension tuning.





Why	Use	Hollow	Sway	<b>Bars</b> ?
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### How is a sway bar made to be stiffer?

A sway bar operates in a cross sectional plane offering torsional resistance to twist. Simply making a sway bar thicker makes the torsional resistance greater and therefore the sway bar becomes stiffer.

Tubular material works just like a solid bar using material cross section torsional resistance. With a tubular sway bar design, sway bar rate or resistance can be adjusted by changing both the outside diameter and wall thickness.







### Why offer an option of tubular sway bars?

For the last decade manufacturer's have focussed a great deal on reducing vehicle mass to decrease fuel consumption. The result is the use of light weight metals and one area of improvement is tubular sway bars.

The choice of materials also has a bearing and careful selection can introduce progressive performance characteristics that are particularly appropriate to tubular bars if designed correctly. This progression allows for even more sophisticated tuning and suspension setup.





#### Why Use Hollow Sway Bars? www.SuperPro.com.au



### Features of SuperPro Roll Control Sway Bar

- Weight savings; SuperPro weighed several different size solid front sway bars including original equipment, weights varied between, 4.7 kgs, [original equipment] to 6.4 kgs.
- The Roll Control product weighs in at 4.28 kg approx. This is a massive weight saving while gaining roll control stiffness.
- Material structure; by varying the thickness of the tube wall, the deflection curve of the sway bar can be varied to give a range of stiffness control.
- Mounting point adjustability, gives further bar rate control.
- Permanent side slip lock stops to minimise sway bar bind due to miss alignment







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# Tubular sway bars are part of a complete system?

Through careful design, SuperPro bushings already offer a range of options to ensure maximum road contact and reduction of grip loss. The addition of a adjustable sway bar allows the driver to further tune their vehicle.

Drivers and enthusiasts want more from their vehicle and expect that the products they purchase deliver what is promised and more. SuperPro Roll Control products and sway bars will over-deliver on these expectations .









### What does the driver get?

- Sharper steering means more driver confidence and safety.
- Better handling means better performance but also lower tyre wear and less maintenance
- More grip is the ultimate goal and suspension enhancement for road, track and off-road 4x4 and 4wd environment
- Less Body Roll improves tyre performance, reduces wear and makes for happier passengers – safer too

