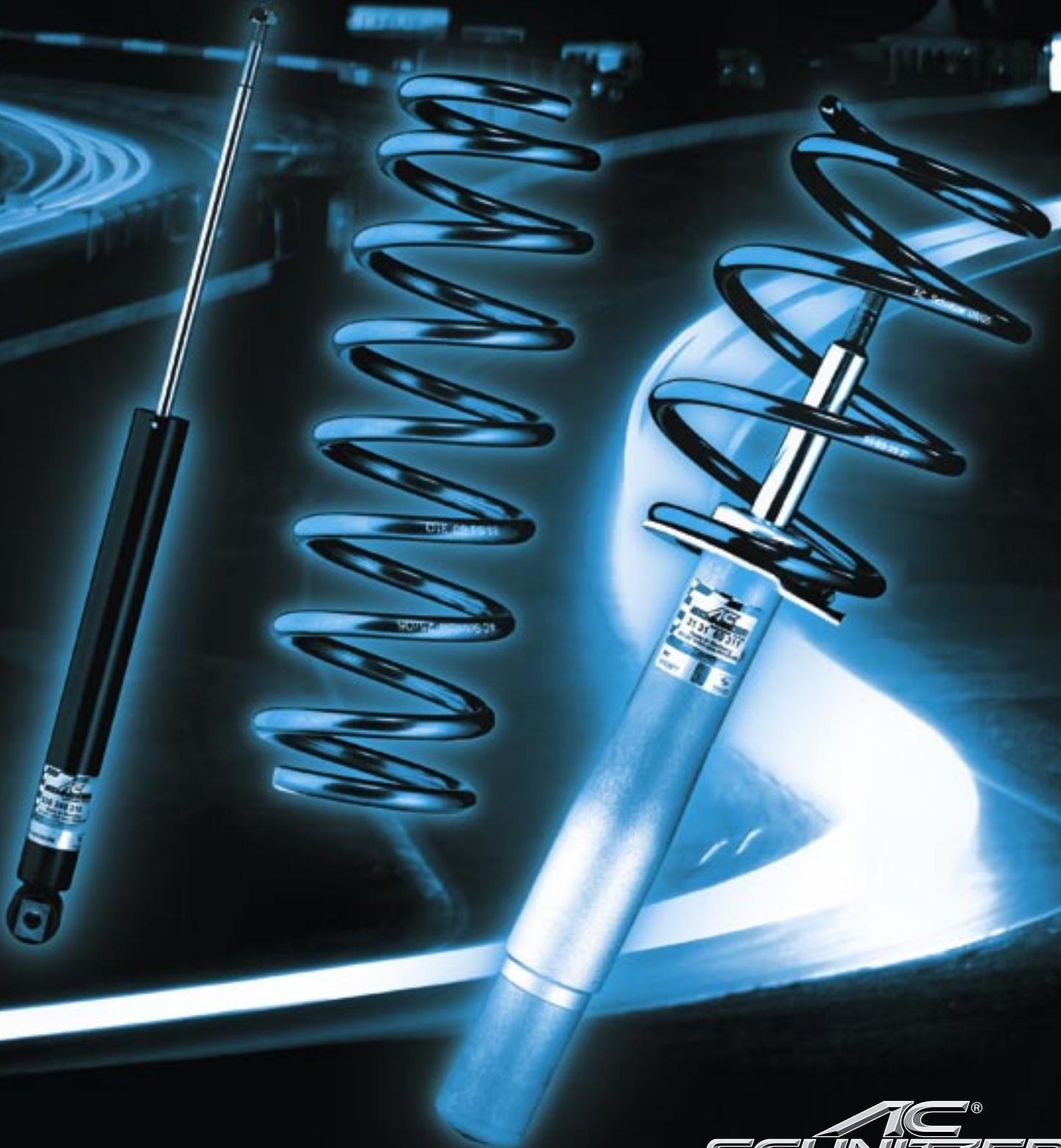


**The Legend of Suspension Technology.**



**AC<sup>®</sup>**  
**SCHNITZER**  
*beyond the standard.*

## AC Schnitzer suspension technology - Transfer of Technology and Know-how.

From the outset, AC Schnitzer has consistently applied its philosophy of transfer of technology and design from motorsport to the road, and refined this further over the years. The core of this philosophy is the legendary success story of the motorsport team of the Schnitzer brothers in the 60s.

The targeted transfer of know-how and technology from motorsport has a long tradition, and not just in the development and production of high performance engines and optimised aerodynamics concepts. The entire

area of suspension would just not be possible in its current form without the many years of extensive experience from motorsport.

A contributing factor has been the development of a whole series of concept cars which act as technological bridges over the sometimes substantial gaps between motorsport and standard series vehicles. Above all in chassis development, extensive tests on Concept Cars are essential both on the road and on the track. Simulations and model tests are just not enough.



## The philosophy is simple:

### „Better fast than hard“

This quote would really be nothing special if it did not come from a famous person - a racing driver who has been responsible for suspension development at AC Schnitzer for decades.

A man who has every curve on the „North Loop“ stored in his popometer, and whom the trade press like to call the „Suspension guru from Aachen“:

Manfred Wollgarten. With this simple sentence, he expresses our entire suspension philosophy in a nutshell.

„The car must in principle handle as well as standard“; and he is convinced that „Forgiving load change responses and gentle understeer on the limit are important - in the end AC Schnitzer customers are not professional racing drivers. Our suspension can handle both country roads and tracks equally well.“

As well as a highly sensitive „popometer“, this calls for high technology base products and a generous helping of patience.

Because only in repeated test drives on motorways, country roads and on the track can the optimum combination be reached in the fine tuning of dampers, springs, antiroll bars and strut braces for each specific model. But since this really pays dividends, we will stay true to our philosophy in the future.



*Two names - one legend:  
Two names are associated with the almost legendary success story - Manfred Wollgarten and AC Schnitzer.*

*331.78 km/h - the world's fastest road-legal BMW:*

*Even in high speed tests with the AC Schnitzer TENSION in Nardo, Southern Italy, we found that top performance comes not from engine power alone but also from the optimum interaction of power plant, aerodynamics and suspension (bottom picture).*



## AC Schnitzer suspension technology - Fine tuning in every detail.

Developing an AC Schnitzer Sports or Racing suspension is a complex and time-consuming process:

- fully set up the standard vehicle including suspension
- define residual spring travel and possible lowering
- produce sample springs
- fit sample springs with standard dampers
- measure height and test spring preload
- series of tests with sample springs and standard dampers
- transfer damper curve from standard diagram to sample
- collaborative development of dampers with manufacturer
- test series on the motorway, country roads and race tracks
- modifications if required, with subsequent new test series

### *Pedants at work:*

*For every vehicle type, the AC Schnitzer suspension engineers meticulously produce a dedicated list of measures. Using their extensive motorsport experience and technological precision, they develop a perfectly matched combination of special sport springs, dampers and antiroll bars.*

In addition, the antiroll bars must be reinforced and modified to adapt the vehicle handling and ride comfort to the new AC Schnitzer suspension components.





## Every one of our chassis is tested in the „Green Hell“.

The only thing that is truly, really hard for an AC Schnitzer chassis is the test process. Because AC Schnitzer suspension components are tested for comfort and handling not only on motorways and country roads, i.e. under everyday conditions, but also on the North Loop of the Nürburgring, better known to insiders as the „Green Hell“.

Only when a set-up has achieved optimum results under all

conceivable driving and race conditions, and combines sports handling with maximum suspension comfort, can it be offered for sale as an AC Schnitzer sports or racing suspension.

Manfred Wollgarten personally approves the extremely high product quality of all AC Schnitzer suspension components and certifies the extensive test process for every original product.



*Only the best survive:  
As it is on the track, so it is at AC Schnitzer.  
Only the best suspension components meet the hard test criteria, partly under racing conditions, and at the same time provide optimum driving comfort for everyday use on the road.*



## **Born in motorsport, perfected for all series models.**

As BMW's standard models differ considerably from each other, the AC Schnitzer engineers must develop specific suspension components for each model. Vehicle weight, size, engine and wheel/tyre combination must be taken into account individually. Finally the springs, dampers, antiroll bars and strut braces are optimally matched to the vehicle and its characteristics.

But the pay-back from all the effort and enthusiasm with which at AC Schnitzer development has been evident for years in the trade press - above all in comparison tests. AC Schnitzer chassis set-ups frequently create „amazement“ even in experienced car journalists.

*Perfection in driving dynamics:  
Here too all the effort is worth while.  
Driving on country roads, on the  
motorway or on the track. All models  
benefit from AC Schnitzer sports and  
racing suspension, with perceptibly  
more agility and improved dynamics  
on the road. The driving comfort of  
the series models remains unaffected.*



## We can't add anything to the verdicts of the trade press:

„The AC Schnitzer is even more amazing in the comfort test: fitted with springs just 30 mm lower, it handled the adverse conditions of the road surface with surprising nonchalance;...“

*Powercar 01/05*

„Considered as a whole, the ACS1 by AC Schnitzer takes the crown in the comparison test: Its engine gives the best ... figures; and its chassis is free from tuning affectations.“

*Powercar 05/05*

„The certificate in the glove box (suspension set up on the North Loop) creates high expectations which are not disappointed. The result is optimum, comfort-oriented - finally most customers are driving from Munich to Hamburg rather than always on the Nürburgring.“

*AutoBild Sportscars 02/06*

„Clear: The tradition-rich Aachen company has ... a wealth of motorsport experience. That's paid dividends. AC Schnitzer suspen-

sion expert Manfred Wollgarten has found the ideal compromise for the powerful diesel 1-series between acceptable everyday comfort and a sports track set-up.“

*AutoBild Test & Tuning 04/05*

„On the other hand, its chassis also allows driving over bumpy roads without afterwards needing 14 two-hour sessions with the physio.“

*Sport Auto Spezial Tuning 2006*



*More driving pleasure with safety: As well as a perceptible bonus in driving pleasure and dynamics, the safety aspect can't be denied. With an optimally set-up AC Schnitzer sports suspension and increased body rigidity, safety reserves too reach a totally new level.*



**Our partners are the best:**



**Continental**



**AC<sup>®</sup>  
SCHNITZER**  
*beyond the standard.*