

# GOLDSCHMITT®

... Fahrwerkstechnik vom Feinsten



Product catalogue 2014/2015

## AirDriveControl®

The new air spring control system from Goldschmitt.

From page 63

## OmniRoad

Comfort and design optimisation for the Volkswagen T5.

From page 76

## HRP technology

The safest corner steady system on the leisure market.

From page 100

# The think tank from Odenwald

Dear Readers,

Not long ago, we were referred to – once again – as the think tank from Odenwald by a specialist motorhome magazine. This description really flatters us. Our customers acknowledge our creativity in this way and, in addition, our roots in the region are also made clear. A sign that province doesn't have to mean the backwaters.

For more than three decades, Goldschmitt has been in the champions league when it comes to optimising chassis suspension systems for motorhomes and emergency vehicles. As an example, it was us that launched the first full air suspension for the Fiat Ducato on the market. And the Goldschmitt levelling systems have been a benchmark for as long as we care to remember. Goldschmitt's quality is legendary.

Thousands of motorhomes and ambulances are fitted with our components. Independent tests have verified the superiority of our systems time and again. We are proud that our think tank has acquired so many fans in the mobile leisure scene.

As you may already know, Goldschmitt became part of the ERWIN HYMER GROUP in 2014. For owners of a motorhome from the large family of companies, it has become even easier to procure Goldschmitt products: You can simply contact your Goldschmitt Premium Partner. But other makes of mobile home are also very welcome. Goldschmitt components optimise every vehicle – regardless of the brand or age.



Visit our factories in the province, the Goldschmitt Premium-Partners in Europe or the Goldschmitt stand at the large trade fairs in Stuttgart or Düsseldorf. You will see here that we always have something new to offer. One thing is clear for the future, too: We are and will remain the creative think tank from Odenwald. That's a promise.

Warm regards

A blue ink signature of Gunnar Edler, consisting of a stylized 'G' and 'E'.

Gunnar Edler  
Managing Director

A blue ink signature of Markus Mairon, consisting of a stylized 'M' and 'M'.

Markus Mairon  
Managing Director

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## Product groups

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| Upgrading                          | 10–13  |
| Steel springs                      | 14–15  |
| Leaf springs and parabolic springs | 16–19  |
| Suspension lift kits               | 20–21  |
| Coil springs                       | 22–29  |
| Auxiliary air springs              | 30–59  |
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| Anti-roll bars                     | 88–89  |
| Spacers                            | 90–91  |
| Aluminium rims                     | 92–95  |
| Hydraulic jacks                    | 96–105 |

## Products for Fiat Ducato

|                                       |        |
|---------------------------------------|--------|
| Leaf springs and parabolic springs    | 16–19  |
| Suspension lift kits                  | 20–21  |
| Coil springs (front axle)             | 22–25  |
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| Full air springs                      | 66–69  |
| Shock absorbers                       | 86–87  |
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| Spacers                               | 90–91  |
| Aluminium rims                        | 92–95  |
| Hydraulic jacks                       | 96–105 |

## Products for Ford Transit

|                           |        |
|---------------------------|--------|
| Suspension lift kits      | 20–21  |
| Coil springs (front axle) | 22–25  |
| Coil springs (rear axle)  | 26–29  |
| Auxiliary air springs     | 40–41  |
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## Products for Iveco Daily

|                       |        |
|-----------------------|--------|
| Suspension lift kits  | 20–21  |
| Auxiliary air springs | 44–47  |
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| Shock absorbers       | 86–87  |
| Spacers               | 90–91  |
| Aluminium rims        | 92–95  |
| Hydraulic jacks       | 96–105 |

## Products for MAN TGL

|                       |        |
|-----------------------|--------|
| Auxiliary air springs | 52–53  |
| Hydraulic jacks       | 96–105 |

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|                                    |        |
|------------------------------------|--------|
| Leaf springs and parabolic springs | 16–19  |
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| Auxiliary air springs              | 48–51  |
| Full air springs                   | 84–85  |
| Shock absorbers                    | 86–87  |
| Anti-roll bars                     | 88–89  |
| Spacers                            | 90–91  |
| Aluminium rims                     | 92–95  |
| Hydraulic jacks                    | 96–105 |

## Products for Renault Master

|                           |        |
|---------------------------|--------|
| Suspension lift kits      | 20–21  |
| Coil springs (front axle) | 22–25  |
| Coil springs (rear axle)  | 26–29  |
| Auxiliary air springs     | 42–43  |
| Shock absorbers           | 86–87  |
| Spacers                   | 90–91  |
| Aluminium rims            | 92–95  |
| Hydraulic jacks           | 96–105 |

## Products for VW Crafter / LT

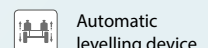
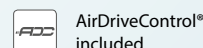
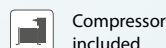
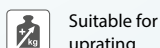
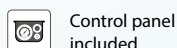
|                                    |        |
|------------------------------------|--------|
| Leaf springs and parabolic springs | 16–19  |
| Suspension lift kits               | 20–21  |
| Auxiliary air springs              | 48–51  |
| Full air springs                   | 84–85  |
| Shock absorbers                    | 86–87  |
| Anti-roll bars                     | 88–89  |
| Spacers                            | 90–91  |
| Aluminium rims                     | 92–95  |
| Hydraulic jacks                    | 96–105 |

## Products for VW T5

|                           |        |
|---------------------------|--------|
| Coil springs (front axle) | 22–25  |
| Full air springs          | 72–77  |
| Shock absorbers           | 86–87  |
| Anti-roll bars            | 88–89  |
| Spacers                   | 90–91  |
| Aluminium rims            | 92–95  |
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## Offroad vehicles

|                       |       |
|-----------------------|-------|
| Auxiliary air springs | 54–57 |
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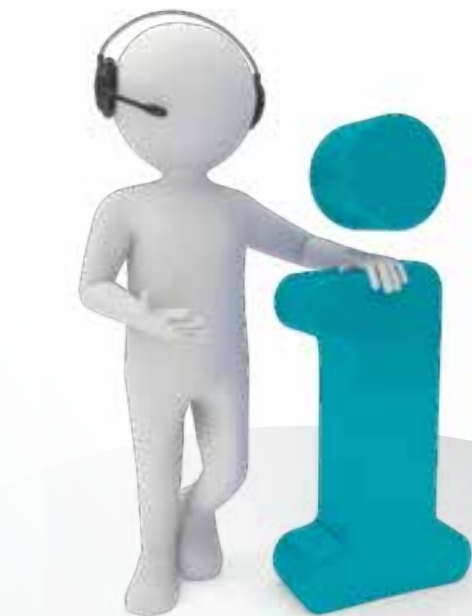


## We are here for you

Do you have any questions about our products or services? Would you like to order something? Do you have any suggestions? We'd be glad to hear from you.

Service is very important at Goldschmitt. Our staff can be contacted between 8am and 5pm, Monday to Friday, for comprehensive advice or to assist you in dealing with your request. You can get in touch with us in a variety of ways should you have any questions regarding Goldschmitt products. Simply send us an email with your request, or phone us if you would prefer to hear a friendly voice on the other end of the line. We'd be glad to hear from you.

To avoid having to wait in a queue, why not take advantage of our free callback service on our homepage. Just complete our online form to request a callback at a time that suits you.



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# Many thanks for your support

For the sixth time in succession, Goldschmitt has won the König-Kunde-Award from the Reisemobil International magazine and has once again secured first place in the promobil readers' choice of best brands ("Die besten Marken"). Thank you very much.



The Reisemobil International magazine has held the coveted König Kunde Award for the sixth time – and for the sixth time in a row, Goldschmitt won first place in the public vote. In the promobil readers' choice, too, our company once again led the pack. As on numerous other occasions, promobil readers have decided that the best jacks are from Goldschmitt. Many thanks for your confidence and support.

In every area of industry there are awards that are regarded particularly highly. For many years, this has included the promobil readers' choice that seeks to find and distinguish the best brands. About 20,000 readers take part in the vote each year and decide who carries which weight in industry. We are really pleased to have

reached the top in 2014 as well. No less important is the König Kunde Award, which the Reisemobil International magazine holds each year. The prize is so coveted because it clearly highlights which brands have the most satisfied customers. As in other areas of life, the same axiom applies here, too: Quantity does not always mean quality down to the finest detail. With the König Kunde Award, the criterion of customer satisfaction is at the forefront. And being a major player in industry is not enough – in addition to good products, customers must be offered the best possible service from the beginning.

For us, there could be no better compliment than knowing that we have satisfied our customers. However, we don't want

to rest on our laurels – the König Kunde Awards and the promobil prizes spur us on to go further and improve even more. We are also grateful to have the best customers in the world. Thank you.



# Goldschmitt Technik-Center Walldürn

The Goldschmitt Technik-Center (GTC) in Walldürn (Germany) have since become far more than an insider tip. Instead, they are the place to go for the installation of high quality products.

Dozens of motorhome drivers from all over Europe head towards Odenwald every day, and there is a good reason for this. Here, we always put our customers first: And this philosophy works – otherwise the GTC in Walldürn would not have enjoyed such high demand in recent years. As proof of this, and a credit to the technical centres, Goldschmitt has been distinguished repeatedly with the first prize in the König Kunde Award of the Reisemobil International magazine.

In 2006, a large workshop with 600 square metres was opened in Walldürn (Germany). Just two years after it opened, GTC reached the limit of its capacity. So, the excavators were asked to return in 2009 – for a workshop four times the size, which the company moved into in the summer of 2010. The 2nd factory has since become Europe's biggest specialist centre for the refinement of motorhomes. The parking area next to it offers plenty of space and features one of the most modern supply and disposal stations.

Although the Goldschmitt specialists, led by facility manager Christian Ertl, carry out almost all kinds of work to do with the

motorhome, the main focus, of course, is on installing their own brand of products. As a sought-after chassis specialist, GTC installs all kinds of suspension elements within one day to provide greater safety reserves and more comfort. Furthermore, our technical centres are predestined when it comes to the installation of auxiliary tanks, reversing cameras, load carriers or other accessories. You are at the right address in Walldürn if you want to have the body of your mobile home treated with nano technology or the underbody sealed.

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# Goldschmitt Technik-Center Polch

The "small" Goldschmitt Technik-Center in Eifel has developed extremely well in a short space of time and the books show a continual demand. Expansion in terms of the building and the staff is planned.

Out and about with your motorhome in the north of Rhineland-Palatinate or in Rhineland? Do you come from Northern France, Belgium or Luxembourg? If so, the Goldschmitt Technik-Center (GTC) in Polch in the Eifel region is a great place to visit if you're planning any kind of chassis optimisation. Whether air suspension systems, hydraulic jacks or accessory products such as rear carrier systems or trailer hitches – in the smaller Goldschmitt Technik-Center, too, we offer an all-encompassing professional service for your motorhome.

Located right near motorway 48, Koblenz-Trier, and in direct vicinity of the production site of motorhome manufacturer Niesmann + Bischoff and the renowned specialist dealership Niesmann Caravanning, Harald Zoltowski's team are ready to assist you with a smile and expert knowledge relating to chassis improvements and automatic levelling devices for mobile homes or transporters.

Naturally, our work is not just orientated around Niesmann + Bischoff – mobile homes, ambulances and Transporters of all kinds and any size are welcome in Polch. The "small GTC", often called

the Eifel-Dependence internally, has already acquired its own group of followers. This is an indication that the specialists in Polch understand their trade exceedingly well. Incidentally, building changes will be carried out soon at Goldschmitt in Polch: the processes in the workshop and administration are to be further optimised. There will also be an increase in the number of staff. We want to ensure that our service is even better in future to cater for your needs. The aim of all Goldschmitt service centres is to serve motorhome drivers in the best possible way.

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# The Goldschmitt Premium Partners



Our selected Goldschmitt Premium Partners are certified specialists throughout Germany who sell and distribute all Goldschmitt products, professionally install them and offer you a service to match.



## **Bauer Caravan + Freizeit**

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## **Further Goldschmitt partners:**


- Sawiko GmbH  
www.sawiko.de
- Reisemobiltechnik Fiedler  
www.fiedlermobil.de
- Henning-Autofedern  
www.henning-autofedern.de



# Goldschmitt partners in Europe

Best service throughout Europe – A pledge by our overseas Goldschmitt partners.

The high quality Goldschmitt products, including professional installation, are available to you with immediate effect in many European holiday destinations.

 **Campingworld Neugebauer GmbH**  
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www.camping-world.at

 **CaraMore HU Kft.**  
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www.arusta.lt

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## Everything operating safely at all times?

The questions asked when buying a motorhome generally concentrate on the number of seats, the size of the cupboards and the fridge capacity. Much more important, however, is the maximum permissible weight. Only uprating will help if this is exceeded.

Manufacturers and customers have the 3.5 ton limit in mind as this lightweight class offers various advantages financially. For example on toll roads or on ferries. Furthermore, the same rules as for cars apply for 3.5 ton vehicles.

More often than not, though, when you're about to embark on a journey with all the cases and passengers onboard, the vehicle is dramatically over the maximum permissible weight of 3.5 tons – even though the manufacturer has made allowance for a few hundred kilograms of payload. The reality is always different, as accessories such as the air conditioning system or the awning add weight to the problem in the true sense of the word. In addition, it is not only the permissible gross vehicle weight that is decisive for the legal definition of overloading, but also the axle load specified in the vehicle documents. Double floors, large water tanks and batteries: these all pile on

the weight in no time.

Anyone who now drives an overloaded motorhome and is caught can expect to feel the full force of the law. In Austria, for instance, a driver with a 3.5 ton motorhome that is only slightly overloaded is treated as a toll dodger. In addition to a fine, he is charged with the fees for the distance he has travelled at the Go Box rates. A fine start to a holiday. Not to mention the threatened loss of insurance cover if the overloaded vehicle is involved in an accident.

There are only two ways to escape this dilemma: You could try to keep the weight under the 3.5 ton limit. Though this is usually difficult to achieve. The better option is to go for uprating. This ensures that the vehicle is always kept within the legal boundaries. Uprating in general terms entails raising the permissible gross vehicle

weight, thereby permitting an increased payload. On some models this process is a purely formal procedure. If the chassis was designed for a higher weight in the factory, it is sufficient to have the vehicle documents amended accordingly. On other motorhomes, on the other hand, no uprating is possible as a matter of principle. This is either because the manufacturer of the base vehicle does not grant any approval for this or because the manufacturer of the motorhome has already exploited this option during manufacture. In many cases, however, there is a third way which Goldschmitt has pioneered. Uprating, yes, but only with the installation of an auxiliary spring.

With the relevant certificate, the axle load and total weight are usually increased. Uprating entails the installation of additional leaf springs, coil springs for the front and rear axle, auxiliary springs or full air springs.



| Vehicle   | Model year | Uprated to<br>Total weight<br>Front / rear axle load | Modification work   | Page in catalogue |
|---|------------|--|---|-------------------|
| Fiat Ducato, model 280/290 (10)   | to 1994    | 3100 kg<br>1600 kg / 1680 kg                         | Auxiliary leaf spring (rear axle)   | –                 |
| Fiat Ducato, model 280/290 (14)   | to 1994    | 3500 kg<br>1600 kg / 1950 kg                         | Auxiliary leaf spring in connection with brake conversion on rear axle                                    | –                 |
| Fiat Ducato, model 280/290 (14)   | to 1994    | 3500 kg<br>1600 kg / 1950 kg                         | Auxiliary air spring in connection with brake conversion on rear axle                                     | –                 |
| <b>Fiat Ducato, model 280/290 (14) with 14 inch original wheels require 195/75 R16C tyres in addition on the rear axle in conjunction with 5.5 x 16 inch steel rims</b> |            |  |   |                   |
| Fiat Ducato, model 230/244 (10/11)  | 1994–2006  | 3200 kg<br>1650 kg / 1750 kg                         | Auxiliary coil spring (rear axle)   | 28                |
|   |            |  | Auxiliary leaf spring (rear axle)   | 18                |
|   |            |  | Auxiliary air spring (AirMaster)  | 37                |
|   |            |  | Auxiliary air spring (rear axle, double air bellows, 6 inch)  | 36                |
| Fiat Ducato, model 230/244 (14/15)  | 1994–2006  | 3500 kg<br>1650 kg / 1900 kg                         | Auxiliary leaf spring (rear axle)   | 18                |
|   |            |  | Auxiliary coil spring (rear axle)   | 28                |
| Fiat Ducato, model 230/244 (14/15)  | 1994–2006  | 3500 kg<br>1650 kg / 1900 kg                         | Auxiliary leaf spring (rear axle)   | 18                |
|   |            |  | Auxiliary air spring (rear axle, double air bellows, 6 inch)  | 36                |
|   |            |  | Auxiliary air spring (rear axle, double air bellows, 8 inch)  | 36                |
| Fiat Ducato, model 230/244 (Maxi)   | 1994–2006  | 4000 kg<br>2000 kg / 2120 kg                         | Coil spring (front axle)  | 25                |
| Fiat Ducato, model 230/244 (Maxi)   | 1994–2006  | 4000 kg<br>1850 kg / 2300 kg                         | Auxiliary leaf spring (rear axle)   | 18                |
|   |            |  | Auxiliary air spring (rear axle, double air bellows, 6 inch)  | 36                |
|   |            |  | Auxiliary air spring (rear axle, double air bellows, 8 inch)  | 36                |
|   |            |  | Auxiliary air spring (AirMaster HeavyDuty)  | 37                |
| Fiat Ducato, model 244 (15)   | 2002–2006  | 3750 kg  | Coil spring (front axle) in conjunction with auxiliary air spring (rear axle, double air bellows, 6 inch) | 25/36             |
|   |            |  | Coil spring (front axle) in conjunction with auxiliary air spring (rear axle, double air bellows, 8 inch) | 25/36             |



## Notes

Since vehicle uprating depends on a whole range of factors, we kindly request that you speak to our customer advisers. Alternatively, you can send your query by email or fax together with a copy of your vehicle document (that has the technical data). Please note that for some uprating measures, an additional change to the wheel and tyre combination is necessary.

- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request



## Uprating

| Vehicle                           | Model year | Uprated to<br>Total weight<br>Front / rear axle load  | Modification work   | Page in catalogue |
|-----------------------------------|------------|---|---|-------------------|
| Fiat Ducato, model 250 (30 Light) | 2006–2014  | 3500 kg<br>1850 kg / 1950 kg  | Auxiliary leaf spring (rear axle)   | 18                |
| Fiat Ducato, model 250 (33 Light) | 2006–2014  | 3500 kg   | Coil spring (front axle)  | 25                |
| Fiat Ducato, model 250 (35 Light) | 2006–2014  | 3850 kg<br>2000 kg / 2240 kg  | Auxiliary coil spring (rear axle)   | 28                |
| Fiat Ducato, model 250 (35 Heavy) | 2006–2014  | 4250 kg<br>2250 kg / 2400 kg  | Auxiliary air spring (rear axle)  | 36                |
| Fiat Ducato, model 250 (40 Heavy) | 2006–2014  | 4500 kg<br>2300 kg / 2600 kg  | Full air spring (2-channel, rear axle)  | 69                |
| Fiat Ducato, model 250 (40 Heavy) | 2006–2014  | 4500 kg<br>2300 kg / 2600 kg  | Full air spring (4-channel, front and rear axle)                              | 69                |
| Fiat Ducato, model 250 (33 Light) | 2006–2014  | 3850 kg<br>2000 kg / 2240 kg  | Coil spring (front axle) in conjunction with auxiliary air spring (rear axle) | 25/36             |
| Fiat Ducato, model 250            | from 2014  | Uprating for the Fiat Ducato 2015 available on request.   |   |                   |
| Ford Transit single wheel         | 2004–2006  | 3850 kg<br>1850 kg / 2250 kg  | Coil spring (front axle)  | 25                |
| Ford Transit single wheel         | 2006–2013  | 3850 kg<br>1850 kg / 2250 kg  | Coil spring (front axle)  | 25                |
|                                   |            |   | Auxiliary coil spring (rear axle)   | 28                |
|                                   |            |   | Auxiliary air spring (rear axle, double air bellows, 6 inch)                  | 41                |
| Isuzu D-Max                       | from 2012  | 3500 kg<br>1350 kg / 2200 kg  | Auxiliary air spring (rear axle)  | 57                |
| Iveco Daily IV 50C                | from 2006  | 2100 kg<br>(front axle)   | Auxiliary air spring (front axle)   | 47                |
| Renault Master II                 | 2002–2010  | 4000 kg<br>2000 kg / 2240 kg<br>(depending on track width)  | Coil spring (front axle)  | 25                |
|                                   |            |   | Auxiliary coil spring (rear axle)   | 28                |
|                                   |            |   | Auxiliary air spring (rear axle, double air bellows, 6 inch)                  | 43                |
| Renault Master III                | from 2010  | 4000 kg<br>2000 kg / 2200 kg<br>(up to 2400 kg rear axle load possible depending on wheel and tyre combination) | Coil spring (front axle)  | 25                |
|                                   |            |   | Auxiliary coil spring (rear axle)   | 28                |
|                                   |            |   | Auxiliary air spring (rear axle, double air bellows, 8 inch)                  | 43                |
| VW Amarok                         | from 2010  | 3400 kg   | Auxiliary air spring (rear axle)  | 56                |



### Notes

Since vehicle uprating depends on a whole range of factors, we kindly request that you speak to our customer advisers. Alternatively, you can send your query by email or fax together with a copy of your vehicle document (that has the technical data). Please note that for some uprating measures, an additional change to the wheel and tyre combination is necessary.

- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request



## Uprating for AL-KO chassis

| Vehicle  | Model year | Uprated to<br>Total weight<br>Front / rear axle load | Modification work   | Page in catalogue |
|--|------------|--|---|-------------------|
| Fiat Ducato, model 230 (18) with AL-KO chassis, single axle        | 1994–2006  | 4000 kg<br>2000 kg / 2120 kg                         | Coil spring (front axle)  | 25                |
| Fiat Ducato, model 230/244 (18) with AL-KO chassis, single axle    | 1994–2006  | 4000 kg<br>1850 kg / 2300 kg                         | Auxiliary air spring (rear axle)  | 39                |
| Fiat Ducato, model 230/244 (18) with AL-KO chassis, single axle    | 1994–2006  | 4000 kg<br>2000 kg / 2300 kg                         | Coil spring (front axle) in conjunction with auxiliary air spring (rear axle) | 25/39             |
| Fiat Ducato, model 230/244 (18) with AL-KO chassis, tandem axle    | 1994–2006  | 5000 kg<br>2000 kg / 3000 kg                         | Coil spring (front axle)  | 25                |
| Fiat Ducato, model 244 (15) with AL-KO chassis                     | 2002–2006  | 3750 kg<br>1650 kg / 2000 kg                         | Auxiliary air spring (rear axle)  | 39                |
| Fiat Ducato, model 244 (18) with AL-KO chassis                     | 2002–2006  | 4000 kg<br>2000 kg / 2120 kg                         | Coil spring (front axle)  | 25                |
| Fiat Ducato, model X250 (Light) with AL-KO chassis, single axle    | 2006–2014  | 3850 kg<br>2000 kg / 2240 kg                         | Coil spring (front axle) in conjunction with auxiliary air spring (rear axle) | 25/39             |
| Fiat Ducato, model X250 (35 Heavy) with AL-KO chassis, single axle | 2006–2014  | 4250 kg<br>2300 kg / 2600 kg                         | Auxiliary air spring (rear axle)  | 39                |
| Fiat Ducato, model X250 (40 Heavy) with AL-KO chassis, single axle | 2006–2014  | 4500 kg<br>2300 kg / 2600 kg                         | Full air spring (rear axle or front and rear axle)                            | 71                |
| Fiat Ducato, model X250 (Heavy) with AL-KO chassis, tandem axle    | 2006–2014  | 5500 kg<br>2300 kg / 3400 kg                         | Coil spring (front axle)  | 25                |
|  |            |  | 4-channel full air spring system (front and rear axle)                        | 71                |
|  |            |  | Parking brake conversion kit  | –                 |

Please note: The parking brake conversion kit is always required when uprating to a maximum permissible weight of 5500 kg.

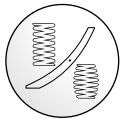


### Notes

Since vehicle uprating depends on a whole range of factors, we kindly request that you speak to our customer advisers. Alternatively, you can send your query by email or fax together with a copy of your vehicle document (that has the technical data). Please note that for some uprating measures, an additional change to the wheel and tyre combination is necessary.

- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request





## The spring with tradition

When anyone talks about suspension, the first thing you think of is classic suspension with steel springs. Thanks to Goldschmitt, they never grow old.

The elastic properties of metals were used in the suspension of carts and carriages as far back as the Middle Ages. Today the steel spring is ubiquitous – in a clothes peg, in a clock mechanism or on a railway carriage. In technical language, a spring is a component that deflects under load and then returns to its original form after the load has been relieved. Modern spring steel has both high tensile strength and high elasticity. This is achieved by means of alloys with a high silicon content and uniform distribution of the carbon molecules. Decisive for the quality of a well-tuned auxiliary spring is the clever interplay of spring hardness or spring constant and the spring characteristic, which describes the ratio of load to deformation.

What do springs improve anyway? When a vehicle drives over unevenness in the road surface, striking forces are imparted on

the wheels. These forces are transferred through the springs and suspension, which act together with the vibration dampers, to the vehicle body. The aim of the interaction of the suspension and vibration damper system is that the wheels' contact with the road surface - which is important for steering and braking the vehicle - is improved (= vehicle safety), the components in the vehicle are protected against excessive loads (= operating reliability), unpleasant and damaging stress on the vehicle occupants is avoided and sensitive freight does not suffer damage (= ride comfort). Goldschmitt springs meet all of these criteria.

A distinction is made between leaf springs and coil springs, which are occasionally (erroneously) also referred to as spiral springs. Leaf springs and coil springs remain the principal spring elements for light commercial vehicles and motorhomes.









# Goldschmitt leaf springs

Auch für Fiat Ducato  
Modelljahr 2015

Steel springs have been meeting the most challenging demands on comfort and operating reliability for many years. Having supplied more than 100,000 leaf springs and parabolic springs, Goldschmitt has the experience you expect from your professional dealer.

Steel springs have been meeting the most challenging demands on comfort and operating reliability for many years. Having supplied more than 50,000 leaf springs and parabolic springs, Goldschmitt has the experience you expect from your dealer. Our products are available for practically all common transporters and motorhomes, whether you are looking to tune your camper's suspension for comfort, or need a heavy duty solution for your transporter.

High quality steel and specially rolled spring ends ensure reduced susceptibility to side winds, better cornering stability and easier handling. Fitting these springs compensates for additional loads on the rear, such as motorcycle carriers. Sagging spring assemblies can have the majority of their original tension restored if an additional leaf spring is installed, which results in the rear of the vehicle being raised significantly. They are straightforward to install and maintenance-free when used continually, making the "Goldschmitt spring" a classic among spring reinforcement systems and the best-selling leaf spring system in Europe.



Whether Mercedes Sprinter or Fiat Ducato: Goldschmitt offers a solution for every common transporter or motorhome chassis. We are happy to provide you with custom versions and special solutions on request.

## Important information

### ✓ Advantages:

- Easy to fit
- Better cornering stability
- Reduced body roll
- Suitable for uprating

### ✓ Particularly suitable for:

- Vehicles with permanently high rear axle load
- Vehicles with overstrained standard leaf springs
- Vehicles used for commercial purposes
- Vehicles with too soft rear axle suspension



## Leaf springs / parabolic springs

| Vehicle                                       | Model year | Notes and characteristics   | Part no.:     |
|---|------------|---|---------------|
| Fiat Ducato (model 230/244)                   | 1994–2006  | <b>Auxiliary leaf springs for the rear axle.</b> Suitable for all versions with one long original spring.   | 001.EC200     |
| Fiat Ducato (model 230/244)                   | 1994–2006  | <b>Auxiliary leaf springs for the rear axle.</b> Suitable for all versions with two long original springs.  | 001.EC200-01  |
| Fiat Ducato (model 250)                       | from 2006  | <b>Auxiliary leaf springs for the rear axle.</b> Suitable for motorhomes and all types of transporter. Not suitable for vehicles with plastic springs.  | 001.EC300     |
| Mercedes-Benz Sprinter (model T1N   208–316)  | 1995–2006  | <b>Auxiliary leaf springs for the rear axle.</b> Suitable for all models with single tyres. With TÜV certificate, but not approved by Daimler AG. The spring assembly number must be stated when ordering. This can be found on the front spring eye.   | 001.MB230     |
| Mercedes-Benz Sprinter (model T1N   408–416)  | 1995–2006  | <b>Auxiliary leaf springs for the rear axle.</b> Suitable for all models with twin wheels. Without TÜV certificate, individual approval required. The spring assembly number must be stated when ordering. This is to be found on the front spring eye. | 001.MB270     |
| Mercedes-Benz Sprinter (model T1N   616)      | 2000–2006  | <b>Front axle optimisation,</b> comprising a replacement leaf spring for front axle and "AirCell" (page 50).  | 0001.MB283-01 |
| Mercedes-Benz Sprinter (model NCV3   209–324) | from 2006  | <b>Auxiliary leaf springs for the rear axle.</b> Please specify the original spring assembly number.  | 001.MB150-xx  |
| Mercedes-Benz Sprinter (model NCV3   509–524) | from 2006  | <b>Auxiliary leaf springs for the rear axle.</b> Please specify the original spring assembly number.  | 001.MB180-xx  |



### Notes

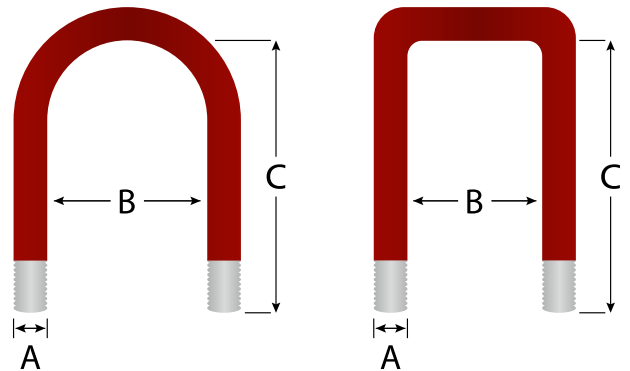
- These systems are suitable for uprating depending on the model (from page 10)
- Where suspension elevating blocks are used, longer U-bolts have to be ordered respectively
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for other vehicles or older models are available on request





## Spring clips / U-bolts

| Vehicle                                 | Model year | Notes and characteristics  | Part no.:    |
|---|------------|--|--------------|
| Fiat Ducato (model 230/244)             | 1994–2006  | Rectangular version (qty. 1)   A = M14 x 1.5 / B = 80 / C = 70 (see dimensions drawing)  | MEB098702070 |
| Fiat Ducato (model 230/244)             | 1994–2006  | Rectangular version (qty. 1)   A = M14 x 1.5 / B = 80 / C = 90 (see dimensions drawing)  | MEB098702090 |
| Fiat Ducato (model 230/244)             | 1994–2006  | Rectangular version (qty. 1)   A = M14 x 1.5 / B = 80 / C = 110 (see dimensions drawing) | MEB098702110 |
| Fiat Ducato (model 230/244)             | 1994–2006  | Rectangular version (qty. 1)   A = M14 x 1.5 / B = 80 / C = 130 (see dimensions drawing) | MEB098702130 |
| Mercedes-Benz Sprinter (model T1N/NCV3) | from 1995  | Round version (qty. 1)   A = M14 x 1.5 / B = 74 / C = 130 (see dimensions drawing)       | MEB98794130  |
| Mercedes-Benz Sprinter (model T1N/NCV3) | from 1995  | Round version (qty. 1)   A = M14 x 1.5 / B = 74 / C = 150 (see dimensions drawing)       | MEB98794150  |
| Mercedes-Benz Sprinter (model T1N/NCV3) | from 1995  | Round version (qty. 1)   A = M14 x 1.5 / B = 74 / C = 175 (see dimensions drawing)       | MEB98794175  |
| Mercedes-Benz Sprinter (model T1N/NCV3) | from 1995  | Round version (qty. 1)   A = M14 x 1.5 / B = 74 / C = 200 (see dimensions drawing)       | MEB98794200  |



## Anti-rattle rubbers

The anti-rattle rubbers for the Fiat Ducato are placed between the individual spring layers. They reliably prevent noise from developing through friction.

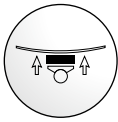


| Vehicle                         | Model year | Notes and characteristics   | Part no.: |
|---------------------------------|------------|---|-----------|
| Fiat Ducato (model 230/244/250) | from 1994  | The scope of supply includes 4 anti-rattle rubbers which are placed between the spring layers | 001.EC206 |



### Notes

- Where suspension elevating blocks are used, longer U-bolts have to be ordered respectively
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for other vehicles or older models are available on request



# Compensating and suspension lift kits

Goldschmitt offers levelling devices at an affordable price:

With our compensating and suspension lift kits, you can balance out one-sided axle loads or increase the ground clearance of your vehicle.



In the case of loading to one side, e.g. as a result of equipment being mounted for design reasons such as tanks, electricity generators or other heavy items, it may be the case on occasion that the vehicle tilts to a greater or lesser degree to one side. Special metal plates are then inserted between the spring assembly and the axle beam on the side of the vehicle concerned to permanently level out the vehicle and ensure that it is horizontal.

A spacer is fitted on each side if it is necessary to raise the rear of the vehicle completely. It is also possible to use differing thicknesses here so that the body of the motorhome can be both raised and simultaneously balanced out.

The suspension elevating or compensating elements are mounted between the spring assembly and axle body. In this way, the vehicle can be balanced out on one side or raised on both sides.

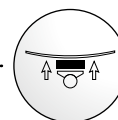
## Important information

### ✓ Advantages of compensating elements:

- Compensates for one-sided axle loads
- Keeps the vehicle level
- Has no effect on the suspension properties
- Best priced levelling device

### ✓ Advantages of suspension lift kits:

- Permanent increase in ground clearance
- No intervention in suspension properties
- Favourable rear end lift
- Wear-free technology



## Compensating elements

| Vehicle                                      | Model year | Notes and characteristics  | Part no.:   |
|--|------------|--|-------------|
| Fiat Ducato (model 230/244)                  | 1994–2006  | Compensating element for rear axle, 20 mm.   | 006.EC20020 |
| Fiat Ducato (model 230/244)                  | 1994–2006  | Compensating element for rear axle, 30 mm.   | 006.EC20030 |
| Fiat Ducato (model 230/244)                  | 1994–2006  | Compensating element for rear axle, 40 mm.   | 006.EC20040 |
| Fiat Ducato (model 250)                      | from 2006  | Compensating element for rear axle, 20 mm. Not suitable for vehicles with plastic springs. | 006.EC30020 |
| Fiat Ducato (model 250)                      | from 2006  | Compensating element for rear axle, 30 mm. Not suitable for vehicles with plastic springs. | 006.EC30030 |
| Fiat Ducato (model 250)                      | from 2006  | Compensating element for rear axle, 40 mm. Not suitable for vehicles with plastic springs. | 006.EC30040 |
| Mercedes-Benz Sprinter (model T1N   208–316) | 1995–2006  | Compensating element for rear axle, 50 mm.   | 006.MB23050 |

## Suspension elevating kits

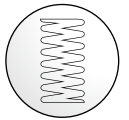
| Vehicle                                      | Model year | Notes and characteristics  | Part no.:   |
|--|------------|--|-------------|
| Fiat Ducato (model 230/244)                  | 1994–2006  | Suspension elevating kit for rear axle, 20 mm.   | 006.EC20120 |
| Fiat Ducato (model 230/244)                  | 1994–2006  | Suspension elevating kit for rear axle, 30 mm.   | 006.EC20130 |
| Fiat Ducato (model 230/244)                  | 1994–2006  | Suspension elevating kit for rear axle, 40 mm.   | 006.EC20140 |
| Fiat Ducato (model 250)                      | from 2006  | Suspension elevating kit for rear axle, 20 mm. Not suitable for vehicles with plastic springs. | 006.EC30120 |
| Fiat Ducato (model 250)                      | from 2006  | Suspension elevating kit for rear axle, 30 mm. Not suitable for vehicles with plastic springs. | 006.EC30130 |
| Fiat Ducato (model 250)                      | from 2006  | Suspension elevating kit for rear axle, 40 mm. Not suitable for vehicles with plastic springs. | 006.EC30140 |
| Ford Transit                                 | 2004–2006  | Suspension elevating kit for rear axle, 30 mm. Please specify the width of the leaf springs.   | 006.FO33130 |
| Ford Transit                                 | 2004–2006  | Suspension elevating kit for rear axle, 50 mm. Please specify the width of the leaf springs.   | 006.FO33150 |
| Ford Transit                                 | 2006–2013  | Suspension elevating kit for rear axle, 40 mm. Please specify the width of the leaf springs.   | 006.FO41140 |
| Iveco Daily IV 35C                           | from 2006  | Suspension elevating kit for rear axle, 20 mm.   | 006.IV32120 |
| Iveco Daily IV 50C                           | from 2006  | Suspension elevating kit for rear axle, 20 mm.   | 006.IV33120 |
| Mercedes-Benz Sprinter (model T1N   208–316) | 1995–2006  | Suspension elevating kit for rear axle, 50 mm.   | 006.MB23150 |
| Renault Master II                            | 1997–2010  | Suspension elevating kit for rear axle, 20 mm.   | 006.OP11120 |
| Renault Master II                            | 1997–2010  | Suspension elevating kit, 50 mm. Only suitable for vehicles with one layer leaf spring         | 006.OP11150 |



### Notes

- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Please note that the amount of lift possible for a vehicle is limited by the length of the shock absorbers
- The use of several suspension elevating kits or compensating elements is only possible in certain cases
- Longer spring U-bolts are included in the scope of supply





## Coil springs for the front axle

Reinforced coil springs raise the front of your vehicle and help your motorhome get back to its original position quickly. In this way, driving safety is improved and so, too, is driving comfort.

It is plain to see: Fiat, Ford, Iveco, Volkswagen and others did not primarily design their transporter chassis so that they can be later used as the basis for motorhomes. The main function of the chassis is as a simple and purposeful workhorse.

If the Ducato, Transit, Daily, T5 and other load haulers are turned into a motorhome, the following often happens: The standard chassis is usually incapable of bearing the loads of the rolling holiday homes and are literally not up to the task. This applies to the front axle in particular. The load here – above all on integrated mobile homes – is pretty hefty. From the large panoramic windows to the drop-down beds, heavy batteries and further to the large solar and satellite systems on the roof.

The consequence: Even after a short period of service, the standard coil springs are no longer capable of performing their duty and fail. Impacts are transferred directly from the road onto the furniture and fittings and the motorhome literally buckles at the knees at the front axle. Together with material fatigue in the original springs, this is often all that is needed for a major deterioration in driving comfort. ▶



### Important information



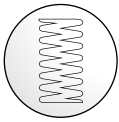
#### Advantages:

- Raises front end of vehicle
- Spring travel is increased
- Lasting service without fatigue
- Suitable for uprating



#### Particularly suitable for:

- Vehicles with high front axle load
- Fully integrated motorhomes
- Motorhomes with alcoves or front-end bed
- Vehicles with long wheelbase

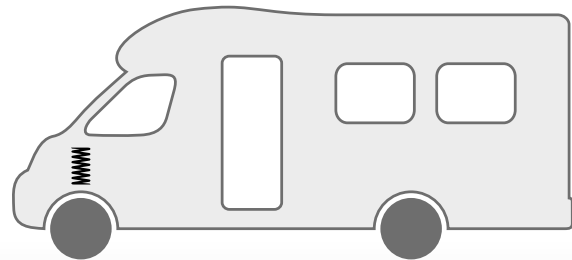
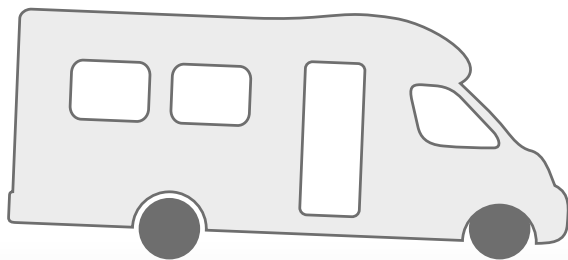


## Coil springs (front axle)



With our reinforced coil springs, owners of top heavy motorhomes are well served. These Goldschmitt developments are configured for the special demands and loads of recreational vehicles and are far superior than the standard products designed for pure workhorses. The driving comfort with Goldschmitt springs is as it should be. And remains this way with lasting effect. The reinforced springs do not tire and even after many years of service offer driving pleasure and the highest level of safety.

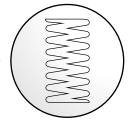
Deep potholes and unevenness in difficult terrain are taken care of easily. With the reinforced coil springs from Goldschmitt, the front axle is raised by up to 100 millimetres depending on the model. Independent tests from specialist magazines confirm: With Goldschmitt coil springs, driving comfort is improved demonstrably by up to 20 percent compared with standard springs. The sensitive furniture and fittings are saved from being damaged thanks to the improved suspension from Goldschmitt. And your backbone as well, of course.



For vehicles with high front axle loads, the standard front axle springs are often overstrained – the vehicle dips down permanently. With our replacement springs, the front-end of the vehicle is returned to the correct height – the suspension can work optimally again.







## Coil springs for the front axle

| Vehicle                 | Model year | Notes and characteristics   | Part no.:    |
|-------------------------|------------|---|--------------|
| Fiat Ducato (model 230) | 1994–2002  | Coil springs for the front axle. From 1750 kg actual front axle load.                                     | 001.EC241    |
| Fiat Ducato (model 244) | 2002–2006  | Coil springs for the front axle. Up to 1750 kg actual front axle load.                                    | 001.EC251    |
|                         |            | Coil springs for the front axle. From 1750 kg actual front axle load.                                     | 001.EC251-01 |
| Fiat Ducato (model 250) | 2006–2014  | Coil springs for the front axle. Suitable for the 30/33/35 Light models.                                  | 001.EC361    |
|                         |            | Coil springs for the front axle. Suitable for models 35/40 Heavy.   | 001.EC371    |
|                         |            | Coil springs for the front axle. Suitable for models 35/40 Heavy. From 2000 kg actual front axle load.    | 001.EC371-01 |
| Fiat Ducato (model 250) | from 2014  | Coil springs for the front axle. Suitable for the models 30/33/35.  | 001.EC461    |
|                         |            | Coil springs for the front axle. Suitable for the models Maxi 35/40.                                      | 001.EC471    |
|                         |            | Coil springs for the front axle. Suitable for the models Maxi 35/40. From 2000 kg actual front axle load. | 001.EC471-01 |
| Ford Transit            | 2004–2006  | Coil springs for the front axle. Only suitable for vehicles with single tyres.                            | 001.FO331    |
| Ford Transit            | 2006–2013  | Coil springs for the front axle. Only suitable for vehicles with single tyres.                            | 001.FO431    |
| Renault Master II       | 1997–2010  | Coil springs for the front axle.  | 001.OP111    |
| Renault Master III      | from 2010  | Coil springs for the front axle.  | 001.OP121    |
| VW T5                   | from 2003  | Coil springs for the front axle.  | 001.VW501    |

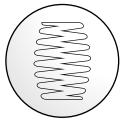


### Notes

- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request

With the coil springs for the Fiat Ducato, the load actually encountered at the springs plays a major role. Generally, reinforcing the springs of the front axle on these models is only wise where the load exceeds 1500 kg long-term. On some vehicles, a heavy load behind the rear axle can relieve the load over the front axle. If the front axle suspension were to be reinforced too much, negative road handling characteristics could manifest themselves. It is recommended, therefore, to always take account of the axle load on a weighed, travel-ready vehicle when choosing the spring rate. On the Fiat Ducato model 244, there are two different versions that are completely identical in terms of the load rating and fatigue-free properties for vehicles with an actual front axle load of up to two tons. Only in conjunction with a reduced construction height is the front-end raised less than one to two centimetres.





## Coil springs for the rear axle

Auxiliary coil springs for the rear axle are fitted in addition to the standard suspension. They ensure greater safety and ride comfort. Moreover, the axle loads and the maximum permissible weight can be increased.

Coil springs are also a suitable alternative to our leaf springs as auxiliary springs for transporters and motorhomes, which are operated with a high rear axle load. With these auxiliary suspension elements, the original springs are supported by additional steel springs. They help the original suspension to cope with the loads. The weight of the body, including the payload, is thereby distributed to the original springs and the auxiliary steel springs.

The uniform reinforcement under all loads guarantees safe and comfortable driving. Severe sagging of the rear end of the vehicle is significantly reduced. Side wind sensitivity - which has unpleasant effects on the handling of vehicles with a high centre of gravity - is likewise reduced. With spring systems from Goldschmitt, the axle loads as well as the maximum permissible weight are able to be increased on the majority of base vehicles (from page 10).



Auxiliary coil springs for the rear axle are used in addition to the standard suspension, as the name suggests.

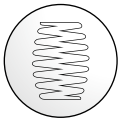
### Important information

#### ✓ Advantages:

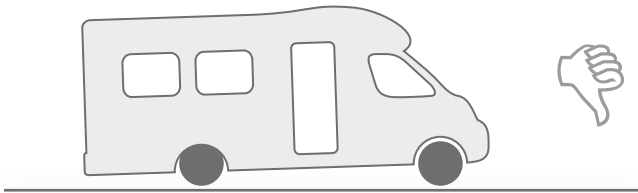
- Easy to fit
- Gentle support for standard springs
- Low wear, low maintenance
- Suitable for uprating

#### ✓ Particularly suitable for:

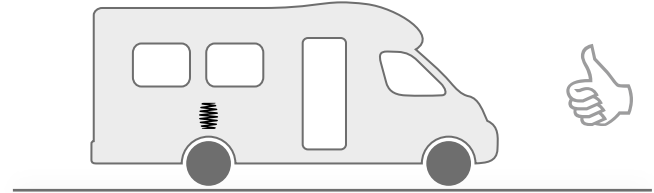
- Vehicles with high rear axle load
- Vehicles used for towing
- Vehicles with rear carrier
- Vehicles with long overhang



## Coil springs (rear axle)



The standard springs of the rear axle are usually too weak for heavy motorhome bodies.



The auxiliary coil springs raise the rear and ensure that there is sufficient spring travel.

### Coil springs for the rear axle

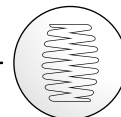
| Vehicle                             | Model year | Notes and characteristics   | Part no.: |
|-------------------------------------|------------|---|-----------|
| Fiat Ducato (model 230/244)         | 1994–2006  | Auxiliary coil springs for the rear axle.   | 001.EC202 |
| Fiat Ducato (model 250)             | from 2006  | Auxiliary coil springs for the rear axle.   | 001.EC302 |
| Ford Transit                        | 2004–2006  | Auxiliary coil springs for the rear axle. Suitable for vehicles with front-wheel drive.   | 001.FO302 |
|                                     |            | Auxiliary coil springs for the rear axle. Suitable for vehicles with single tyres and rear-wheel drive.   | 001.FO312 |
| Ford Transit                        | 2006–2013  | Auxiliary coil springs for the rear axle. Suitable for vehicles with front-wheel drive.   | 001.FO402 |
| Mercedes-Benz Sprinter (model NCV3) | from 2006  | Auxiliary coil springs for the rear axle. Suitable for vehicles up to 3.5 ton maximum permissible weight. Not suitable for vehicles with all-wheel drive. | 001.MB153 |
| Renault Master II                   | 1997–2010  | Auxiliary coil springs for the rear axle.   | 001.OP112 |
| Renault Master III                  | from 2010  | Auxiliary coil springs for the rear axle. Individual adaptation depending on drive and frame type.  | 001.OPxx2 |



#### Notes

- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request

Please note that a round plate is welded on as standard to the rear axle of the Ford Transit. This plate is required to secure the lower bracket. If this plate is missing on your vehicle, please speak to one of our customer service advisers on +49 (0) 62 83 / 22 29-100.



## Coil springs (rear axle) for passenger vehicles

| Vehicle                             | Model year     | Notes and characteristics             | MS | Part no.:  |
|-------------------------------------|----------------|---------------------------------------|----|------------|
| Audi A6, model 4G                   | from 03.11...  | Also for Avant / not Quattro          | 5  | 01.042085  |
| Citroën Berlingo                    | 2003–2008      |                                       | 0  | 01.136100  |
| Citroën Berlingo                    | from 2008      | Reinforced set / not for long chassis | 8  | 01.133238  |
| Citroën Berlingo                    | from 2008      | Not for long chassis                  | 8  | 01.133248  |
| Citroën Berlingo                    | from 2008      |                                       | 8  | 01.133298  |
| Citroën Jumpy, model 270            | from 2007      | Except ride height control            | 5  | 01.138525  |
| Dacia Duster SD                     | from 04.10...  | Only for 4x4                          | 8  | 01.140568  |
| Dacia Lodgy SD                      | from 05.12...  |                                       | 5  | 01.140585  |
| Fiat Doblo                          | from 2001      |                                       | 0  | 01.051660  |
| Fiat Doblo                          | from 2001      | Reinforced set                        | 0  | 01.051670  |
| Fiat Doblo, model 263               | from 02.10...  | Not for panel vans                    | 5  | 01.051745  |
| Fiat Doblo panel van, model 263     | from 02.10...  |                                       | 5  | 01.051755  |
| Fiat Scudo 220 (L)(P)               | from 1995      | Apart from levelling device           | 5  | 01.138505  |
| Fiat Scudo, model X                 | from 2007      | Apart from levelling device           | 5  | 01.138525  |
| Mercedes-Benz Vito/Viano, model 639 | from 10.2003   |                                       | 5  | 01.098055  |
| Peugeot Expert                      | from 1995      |                                       | 5  | 01.138505  |
| Peugeot Expert X                    | from 2007      | Apart from levelling device           | 5  | 01.138525  |
| Peugeot Partner, model 5/G/M59/F5   | 07.96 to 04.08 |                                       | 0  | 01.136100  |
| Peugeot Partner                     | from 04.2008   | Reinforced set / not for long chassis | 8  | 01.133238  |
| Peugeot Partner                     | from 04.2008   | Not for long chassis                  | 8  | 01.133248  |
| Peugeot Partner                     | from 04.2008   | L2                                    | 8  | 01.133298  |
| Toyota Avensis, model T27           | from 01.2009   | Also for estate                       | 5  | 01.360345  |
| VW Caddy, model 2KN                 | from 2003      |                                       | 0  | 01.196220  |
| VW UP, model AA                     | from 01.2012   |                                       | 5  | 01.19101.5 |
| VW T4                               | from 1990      | Also for all-wheel drive              | 5  | 01.198045  |



**Installation system 0**  
between frame and axle



**Installation system 5**  
in the main springs



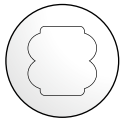
**Installation system 8**  
reinforced main springs



### Notes

- These are reinforced coil springs for heavily loaded vehicles where the load is taken at the rear
- All coil springs listed here are supplied with TÜV certification
- Products for other vehicles or older models are available on request
- Auxiliary coil springs for the rear axles of passenger vehicles are also available. Contact our customer service advisers.
- The column "MS" stands for mounting system and shows you how the auxiliary spring is mounted





# A helper that never tires

Auxiliary air springs from Goldschmitt support the standard steel springs and add more comfort and driving safety to the running gear.

High loads, heavy installations and usually uneven weight distribution push the standard steel spring system - installed in most transporters and mobile home chassis - right to its limit. As a result, the springs often start to decline in the level of comfort and, above all, driving safety - even after a short period of service. This is precisely the reason why the use of Goldschmitt's air spring system is particularly beneficial, in some cases even indispensable. With an air spring, not only are the dynamic driving qualities improved. The suspension comfort of the original springs is far outweighed at the same time.

Goldschmitt distinguishes between full air spring systems and auxiliary air spring systems. The latter, in particular, proves its worth day after day. With auxiliary air springs, weight and comfort problems can be solved very satisfactorily. Even an increase in the payload is possible thanks to the auxiliary springs from Goldschmitt.

## On a level

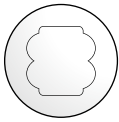
Air springs, regardless of the system, offer a whole host of advantages: With high loads, mechanical springs "buckle" and in extreme cases even bottom out. Unlike mechanical springs, which get shorter or longer when they are compressed (although an air suspension system chang-

es its internal pressure under different loading), it does not change its inherent geometry - the air spring compensates for the higher load with a correspondingly higher counterpressure in the air bags. It is true that this changes the response characteristics minimally, but not the usual ride height. An air spring ensures this constant ride height for the entire service life of the vehicle. Fatigue, as evident in mechanical springs, is not possible with the high quality air springs of the Goldschmitt range.

## Compressor and control unit - all included

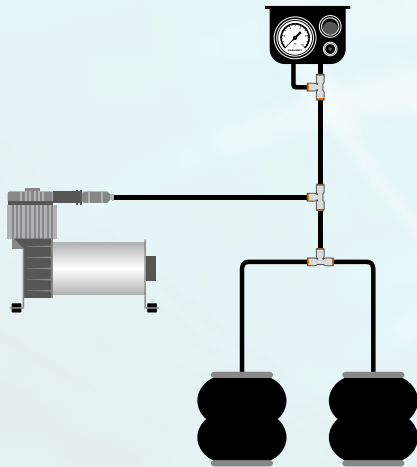
Auxiliary air springs from Goldschmitt have been equipped as standard for many years with a compressor and control unit including pressure gauge. Tire-some charging of the air spring systems at filling stations, not uncommon among many other air spring manufacturers, is unnecessary with Goldschmitt air springs. The rear of your motorhome can be raised quickly and conveniently from the cab as required. This makes it possible to increase the height at the rear of heavily loaded motorhomes for long periods of time or just sporadically when negotiating steep ramps on ferries, for example, driving over rough terrain or other obstacles. Grounding and damage to the rear or side skirts associated with this can be successfully avoided thanks to the auxiliary air spring.





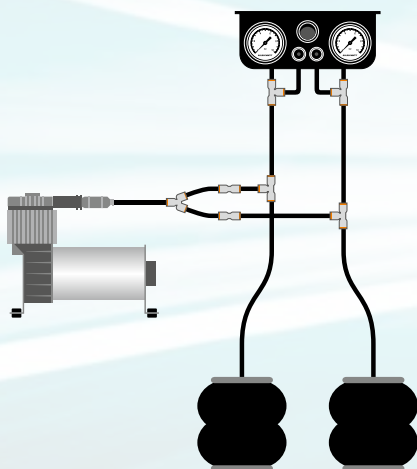
## One system – two options

You want an auxiliary air spring system from Goldschmitt but have not yet decided whether to go for a 1-circuit or a 2-circuit system? We want to help you make the right choice, so here is a quick outline of both options.



### 1-circuit system

Auxiliary air springs are usually installed on the rear axle so that the standard springs of a tail-heavy vehicle are relieved of load. In a so-called 1-circuit system, the left and right-hand air bags are joined together and filled via a common air line. The air pressure in the two bellows can be read from a shared pressure gauge in the cab but cannot be regulated independently of each other. So, one-sided lowering of the air spring where loads are unevenly balanced is not possible. The 1-circuit system is therefore only recommended for vehicles with even rear axle load.



### 2-circuit system

Vehicles, mainly motorhomes, with different wheel loads are often lopsided, i.e. they dip down on one side. With steel springs, scenarios such as this can't really be helped. It's a different story with air springs and a 2-circuit system from Goldschmitt, however. The air bellows of the rear axle are supplied with compressed air from two separate circuits. With the aid of a double pressure gauge in the cab, the air pressure of both air bellows can be monitored and regulated independently of each other. The 2-circuit system is therefore optimal for vehicles that are heavy on one side as load differences can be conveniently balanced out.



# All in check thanks to the pressure gauge

A compressor and a cab control unit have been included in the Goldschmitt auxiliary air spring system package for as long as we care to remember. Of late, the integrated pressure gauge that displays the air pressure is available with LED illumination as an option.



## Complete packages from Goldschmitt

Ever get annoyed about the long list of costly extras when buying a car or motorhome? You're not alone. And that's why we want to do things a little differently when it comes to accessories. Our aim is not only to offer complete systems but also the most complete ones possible.

When you compare them, you'll soon notice that this isn't just some empty promise: Every one of our auxiliary air spring systems comes with a powerful compressor and a control unit, including pressure gauge\*. In this way, we want to offer you the luxury of controlling and operating your air suspension system easily and conveniently from the cab.

## Illuminated pressure gauge

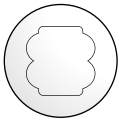
Another option that can make operation of your air suspension easier in future is the new illuminated pressure gauge, which is available as an upgrade package with every auxiliary air spring system. With the integrated LED light, you have a clear overview at night and clear control of your air spring system. An integrated pressure switch warns you optically as well should pressure drop in the air spring system.

## Specific control elements

Since not only perfect functionality are important in the motorhome industry but appearance as well, specific cockpit trim panels have been developed for many types of vehicle. These vehicle-specific control elements are available for Fiat Ducato, Ford Transit and Renault Master models. For these and all other vehicles, we offer radio aperture trim panels as well, which fit in every ISO-standard radio slot.



\*The pressure gauges included as standard in the scope of supply have no illumination at all. The illuminated pressure gauges must be ordered as option.



# Auxiliary air springs for the Fiat Ducato

For the most important base vehicle of the motorhome industry and its cousins from Peugeot and Citroën, Goldschmitt offers many chassis suspension solutions for every budget. Among the most popular solutions for comfort and safety are our high quality auxiliary air springs.



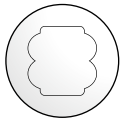
## Important information

### ✓ Advantages:

- Suitable for uprating (page 10)
- Rear of vehicle is raised
- Improved road handling
- Flexible adaptation of spring rate
- Standard springs are supported

### ✓ Particularly suitable for:

- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts



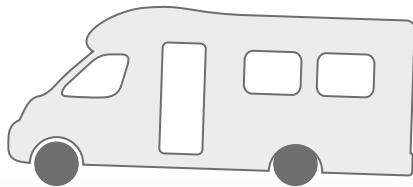
## Folding bellows systems: Comfortable and robust

Auxiliary air springs from Goldschmitt support the existing suspension and, in this way, add more comfort and more driving safety to the chassis suspension. The high quality double folding bellows systems are available as 6 or 8 inch versions depending on the model.

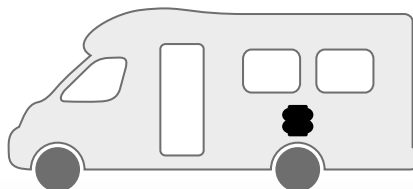
Our 8-inch air spring system was developed especially for the Ducato family. Since the introduction of the 3 ton limit, many body attachments have become considerably longer and heavier. With greater expectations on the payload, therefore, a stronger air spring system is required. A considerably larger chamber volume provides greater assistance with any load for this top product. It was even possible to significantly increase the effective lift range. High quality double folding bellows and the many years of experience guarantee superior road handling and a much higher level of safety – as well as and above all for motorhomes at the payload limit.



The air bag of an auxiliary air spring is mounted between the original leaf spring and the frame. In this way, the air spring can support the standard steel spring. The air pressure of the air bags can be adapted to the respective load status. A compressor and a cab control unit for actuation of the system are included in the scope of supply.



For vehicles with high rear axle loads, the standard steel springs are often overstrained – the vehicle dips permanently.



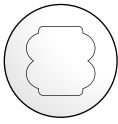
The auxiliary air springs lift the rear of the vehicle and provide sufficient spring travel and flexible adjustment of the spring characteristics.

## Comfort air springs for compact motorhomes

Compact motorhomes of the 3.5 ton category based on the Fiat Ducato (model 230/244) are equipped as standard with a double leaf spring affair and associated standard shock absorbers. When the vehicle is unladen and in the part-load range, however, the suspension comfort is perceived by most passengers as quite hard and uncomfortable.

Help is provided here with the comfort air spring from Goldschmitt. In conjunction with our special shock absorbers, the vehicle's suspension is soft and harmonious. Thanks to the progressive damping, the vehicle does not rock. This system is designed for panel vans with a rear axle load up to maximum 2000 kg.

All auxiliary air spring systems from Goldschmitt come with a compressor and cab control unit so that you can check and regulate the air pressure in the air bags conveniently from the cab. Illuminated pressure gauges with integrated air pressure warning are available as an option.



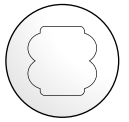
## Double folding bellows system for Fiat Ducato / Citroën Jumper / Peugeot Boxer

| Vehicle                     | Model year | Notes and characteristics  | Part no.:  |             |
|-----------------------------|------------|--|--|-------------|
| Fiat Ducato (model 230/244) | 1994–2006  | 1-circuit  | 1-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit.   | 002.EC201MA |
|                             |            |  | 1-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. With special bracket for vehicles with restricted installation space.   | 002.EC20KMA |
|                             |            |  | 1-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit.   | 002.EC202MA |
|                             |            |  | 1-circuit system for rear axle (comfort air spring with single chamber bellows). Including compressor and in-cab control unit. Suitable for vehicles with rear axle load up to 2000 kg.  | 002.EC20BMA |
|                             |            | 2-circuit  | 2-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit.   | 002.EC201MF |
|                             |            |  | 2-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. With special bracket for vehicles with restricted installation space.   | 002.EC20KMF |
|                             |            |  | 2-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit.   | 002.EC202MF |
|                             |            |  | 2-circuit system for rear axle (comfort air spring with single chamber bellows). Including compressor and in-cab control unit. Suitable for vehicles with rear axle load up to 2000 kg.  | 002.EC20BMF |
| Fiat Ducato (model 250)     | 2006–2014  | 1-circuit  | 1-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. For models 30 Light to 40 Heavy. Ideal for vehicles with a maximum permissible weight up to 3500 kg.  | 002.EC301MB |
|                             |            |  | 1-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. For models 30 Light to 40 Heavy. Ideal for vehicles with a maximum permissible weight from 3500 kg.   | 002.EC30DMB |
|                             |            | 2-circuit  | 2-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. For models 30 Light to 40 Heavy. Ideal for vehicles with a maximum permissible weight up to 3500 kg.  | 002.EC301MG |
|                             |            |  | 2-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. For models 30 Light to 40 Heavy. Ideal for vehicles with a maximum permissible weight from 3500 kg.   | 002.EC30DMG |
| Fiat Ducato (model 250)     | from 2014  | 1-circuit  | 1-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. For models 30 to Maxi 40. Ideal for vehicles with a maximum permissible weight up to 3500 kg. Not suitable for vehicles with plastic springs. | 002.EC4A1MB |
|                             |            |  | 1-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. For models 30 to Maxi 40. Ideal for vehicles with a maximum permissible weight from 3500 kg. Not suitable for vehicles with plastic springs.  | 002.EC4A1MG |
|                             |            | 2-circuit  | 2-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. For models 30 to Maxi 40. Ideal for vehicles with a maximum permissible weight up to 3500 kg. Not suitable for vehicles with plastic springs. | 002.EC4ADMB |
|                             |            |  | 2-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. For models 30 to Maxi 40. Ideal for vehicles with a maximum permissible weight from 3500 kg. Not suitable for vehicles with plastic springs.  | 002.EC4ADMG |
| Illuminated pressure gauge  |            | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. | 02.122WE-UPG   |             |



### Notes

- These systems are suitable for upgrading depending on the model (from page 10)
- In some cases, a bracket is required for the compressor during installation
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Various control units are available as an option for the systems listed here (page 33/58)



## Rolling lobe and tapered sleeve bellows systems for Fiat Ducato / Citroën Jumper / Peugeot Boxer

The "AirMaster" program from Goldschmitt sets standards in terms of technology, price and performance. With the compact design, this air spring system can also be installed in vehicles that are less suitable for other air suspension systems due to restricted installation conditions. Above all motorhomes with floorplans require compact but, at the same time, high performing systems that can cope easily with heavy loads. Fabric-reinforced air bags ensure comfortable and safe driving operation in all load condi-

tions. The upper bracket integrates the standard buffers so that optimal emergency running properties are assured.

All auxiliary air spring systems from Goldschmitt come with a compressor and cab control unit so that you can check and regulate the air pressure in the air bags conveniently from the cab. Illuminated pressure gauges with integrated air pressure warning are available as an option.

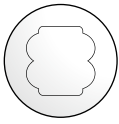


| Vehicle                     | Model year   | Notes and characteristics | Part no.:  |             |
|-----------------------------|--|---------------------------|--|-------------|
| Fiat Ducato (model 230/244) | 1994–2006  | 1-circuit                 | 1-circuit system »AirMaster« for rear axle (rolling lobe air spring system with 2 bellows). Including compressor and in-cab control unit. For vehicles up to maximum 1700 kg actual rear axle load.        | 002.EC207MA |
|                             |  |                           | 1-circuit system »AirMaster« for rear axle (rolling lobe air spring system with 4 bellows). Including compressor and in-cab control unit. For vehicles up to maximum 2000 kg actual rear axle load.        | 002.EC20NMA |
|                             |  |                           | 1-circuit system »AirMaster-HeavyDuty« for rear axle (rolling lobe air spring system with 4 bellows). Including compressor and cab control unit. For vehicles up to maximum 2300 kg actual rear axle load. | 002.EC20OKA |
|                             |  | 2-circuit                 | 2-circuit system »AirMaster« for the rear axle (rolling lobe air spring system with 2 bellows). Including compressor and in-cab control unit. For vehicles up to maximum 1700 kg actual rear axle load.    | 002.EC207MF |
|                             |  |                           | 2-circuit system »AirMaster« for the rear axle (rolling lobe air spring system with 4 bellows). Including compressor and in-cab control unit. For vehicles up to maximum 2000 kg actual rear axle load.    | 002.EC20NMF |
|                             |  |                           | 2-circuit system »AirMaster-HeavyDuty« for rear axle (rolling lobe air spring system with 4 bellows). Including compressor and cab control unit. For vehicles up to maximum 2300 kg actual rear axle load. | 002.EC20OKF |
| Illuminated pressure gauge  | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |                           | 02.122WE-UPG   |             |



### Notes

- These systems are suitable for upgrading depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Various control units are available as an option for the systems listed here (page 33/58)



## Auxiliary air springs for AL-Ko chassis

AL-KO chassis are a real favourite among motorhomers. With the patented auxiliary air springs from Goldschmitt, vehicles with AMC low frame chassis are even more comfortable. Thanks to the notably higher rear-end, your vehicle also benefits from greater safety.



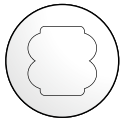
### Important information

#### ✓ Advantages:

- Suitable for upgrading (page 10)
- Rear of vehicle is raised
- Improved road handling
- Flexible adaptation of spring rate
- Standard springs are supported

#### ✓ Particularly suitable for:

- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts



## The patented original

On transporter chassis, all of the main components such as engine, gearbox and drivetrain are focused by the cab. The rest of the chassis can therefore be replaced by a special structure that is more suitable than the original for the respective body attachment. Depending on the length and overall weight, these chassis are equipped with one or two rear axles. The tried and tested compact torsion bar axles are used in place of leaf springs. Since the wheel follows a circular path here when the suspension compresses (which is not the case with leaf spring suspension), it has taken a long time to find a solution to reinforce torsion bar suspension systems with auxiliary air springs. Not until the so-called tapered sleeve bellows has it been possible to solve this engineering problem.

Without exaggeration, our patented air spring system can be regarded as the best air spring system for torsion beam axle chassis suspension for retroinstallation. A control unit and a compressor are included as standard in the scope of supply. Illuminated pressure gauges are available as an option.



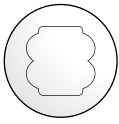
The auxiliary air spring supports the overloaded torsion beam suspension and, in doing so, improves driving comfort and driving safety.

| Vehicle   | Model year   | Notes and characteristics  | Part no.:    |
|---|--|--|--------------|
| Fiat Ducato, model 230/244 with AL-KO single axle | 1994–2006  | 1-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK15x6MA |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK15x6MF |
| Fiat Ducato, model 230/244 with AL-KO tandem axle | 1994–2006  | 1-circuit system for rear axle (air spring system with 4 tapered sleeve bellows). Including compressor and control unit. | 002.AK16xMKA |
|   |  | 2-circuit system for rear axle (air spring system with 4 tapered sleeve bellows). Including compressor and control unit. | 002.AK16xMKF |
| Fiat Ducato, model 250 with AL-KO single axle     | from 2006  | 1-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK1xx6MB |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK1xx6MG |
| Fiat Ducato, model 250 with AL-KO tandem axle     | from 2006  | 1-circuit system for rear axle (air spring system with 4 tapered sleeve bellows). Including compressor and control unit. | 002.AK1xxMKB |
|   |  | 2-circuit system for rear axle (air spring system with 4 tapered sleeve bellows). Including compressor and control unit. | 002.AK1xxMKG |
| Renault Master II                                 | 1997–2010  | 1-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK31A6MB |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered sleeve bellows). Including compressor and control unit. | 002.AK31A6MF |
| Illuminated pressure gauge                        | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |  | 02.122WE-UPG |



### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Various control units are available as an option for the systems listed here (page 33/58)



# Auxiliary air springs for the Ford Transit

The Ford Transit has been on a high over the last four years and is the chassis that best competes with the Fiat Ducato. With auxiliary air springs from Goldschmitt, weaknesses in the running gear are also eliminated.



## Important information

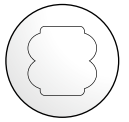
### ✓ Advantages:

- Suitable for uprating (page 10)
- Rear of vehicle is raised
- Improved road handling
- Flexible adaptation of spring rate
- Standard springs are supported

### ✓ Particularly suitable for:

- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts



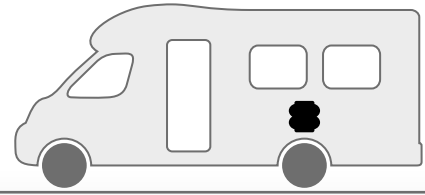


### Help your Transit to break the rocking habit

Auxiliary air springs for the Ford Transit support the existing steel springs on the rear axle and, in this way, add more comfort and more driving safety to the running gear. The large double folding bellows counteract the fatigue in the standard springs and ensure that driving comfort is considerably better and road handling is more secure. Furthermore, they help to increase ground clearance considerably on long overhanging vehicles where the load is taken at the rear, or where low side skirts are fitted.

Apart from the so-called 1-circuit systems, you receive all fittings as a 2-circuit system as well so that different wheel loads can be actuated independently of each other. The air spring systems are equipped with a compressor and a cockpit control unit so that the air pressure in the bellows can be monitored in transit, too. Illuminated pressure gauges with integrated air pressure warning are available as an option.

Since the Transit models can vary so much within a series, we require various details when an order is placed, such as the axle shape or wheel configuration.



The auxiliary air springs lift the rear of the vehicle and provide sufficient spring travel and flexible adjustment of the spring characteristics.

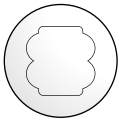


| Vehicle                    | Model year   | Notes and characteristics  | Part no.:    |
|----------------------------|--|--|--------------|
| Ford Transit               | 1990–2000  | 1-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO1x3MA  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO1x3MF  |
| Ford Transit               | 2000–2004  | 1-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO2x1MA  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO2x1MF  |
| Ford Transit               | 2004–2006  | 1-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO3x4MA  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO3x4MF  |
| Ford Transit               | 2006–2013  | 1-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO4x4MB  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.FO4x4MG  |
| Illuminated pressure gauge | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |  | 02.122WE-UPG |



#### Notes

- These systems are suitable for upgrading depending on the model (from page 10)
- When placing an order, we require various technical details about your Transit model
- Various control units are available as an option for the systems listed here (page 33/58)



# Auxiliary air springs for the Renault Master

The Renault Master and its cousins from Opel and Nissan are trendy and have many fans – and with the auxiliary air spring from Goldschmitt, it forms a partnership that reliably irons out weaknesses in the running gear. The Master bolsters safety and comfort as a mark of gratitude.



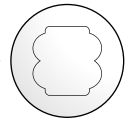
## Important information

### ✓ Advantages:

- Suitable for uprating (page 10)
- Rear of vehicle is raised
- Improved road handling
- Flexible adaptation of spring rate
- Standard springs are supported

### ✓ Particularly suitable for:

- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts

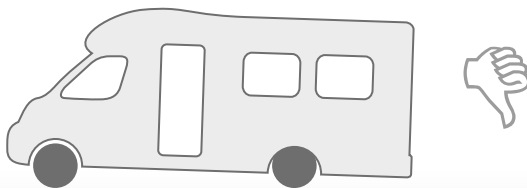


The Renault Master was launched at the start of the 21st century as a base vehicle for the motorhome sector, too, orientated around the leisure industry. In 2010, the new generation was introduced to the market. And within a short space of time, the vehicle from France had amassed a great deal of fans.

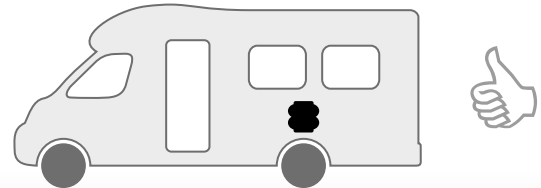
As the basis for motorhomes, however, completely new problems are encountered on the popular transporter chassis. If the undercarriage has to bear a heavy and often overhanging body, the standard steel springs of the rear axle are often stretched to the limit.

Help is provided by an auxiliary air spring system that is available not only for the current Master but also for its predecessor. The double folding bellows guarantee optimal driving comfort with a long overhang, high centre of gravity and maximum payload. The spring rate adapts itself to the load status and makes it far less likely that the rear overhang will bottom out.

**A 12 volt compressor and a cab control unit are featured as standard of course. Moreover, the air spring facilitates upgrading to a maximum permissible weight of four tons.**



Overloaded rear axle with standard springs



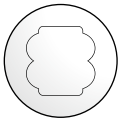
Vehicle with auxiliary air springs from Goldschmitt

| Vehicle                    | Model year   | Notes and characteristics   | Part no.:    |
|----------------------------|--|---|--------------|
| Renault Master II          | 1997–2010  | 1-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. Only suitable for vehicles with ABS.                     | 002.OP115MB  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 6 inch). Including compressor and in-cab control unit. Only suitable for vehicles with ABS.                     | 002.OP115MF  |
| Renault Master III         | from 2010  | 1-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.OPxxDMB  |
|                            |  | 2-circuit system for rear axle (double folding bellows, 8 inch). Including compressor and in-cab control unit. Individual adaptation depending on drive and frame type. | 002.OPxxDMG  |
| Illuminated pressure gauge | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |   | 02.122WE-UPG |



Notes

- These systems are suitable for upgrading depending on the model (from page 10)
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Various control units are available as an option for the systems listed here (page 33/58)



# Auxiliary air springs for the Iveco Daily (RA)

With the Daily, Iveco launched a particularly sturdy vehicle onto the market, which is very well suited for industrial and commercial use thanks to its heavy duty nature. With our auxiliary air springs, your Iveco has even greater safety and comfort.



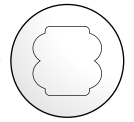
## Important information

### ✓ Advantages:

- Suitable for uprating (page 10)
- Rear of vehicle is raised
- Improved road handling
- Flexible adaptation of spring rate
- Standard springs are supported

### ✓ Particularly suitable for:

- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts



### Aid for the long-distance runner from Iveco

Vehicles with rear axle loads of more than three tons pose a particular challenge for auxiliary air springs. This applies even more if the available space is restricted by tanks or other attachments. This is where the trusted Goldschmitt tapered sleeve bellows are used, which combine compact installation dimensions with exemplary driving comfort, road handling and driving safety. Depending on the type of vehicle, 2-bellows or 4-bellows systems are available.

Specially developed for twin tyre Iveco Daily models from 2006, there is a system with double folding bellows that positively influences road handling in all load and road surface conditions. Vehicles with a tow hitch, long rear overhang and high centre of gravity profit in particular from the two pressure components on the rear axle.

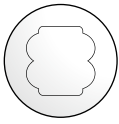
**All auxiliary air spring systems from Goldschmitt come with a compressor and cab control unit so that you can check and regulate the air pressure in the bellows conveniently. Illuminated pressure gauges with integrated air pressure warning are available as an option.**

| Vehicle                    | Model year   | Notes and characteristics  | Part no.:    |
|----------------------------|--|--|--------------|
| Iveco Daily III (35C–50C)  | 2000–2006  | 1-circuit system for rear axle (air spring system with 4 tapered bellows). Including compressor and in-cab control unit. For vehicles with ABS. Panel vans on request. | 002.IV22MKC  |
|                            |  | 2-circuit system for rear axle (air spring system with 4 tapered bellows). Including compressor and in-cab control unit. For vehicles with ABS. Panel vans on request. | 002.IV22MKH  |
| Iveco Daily III (35S)      | 2000–2006  | 1-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For single-wheeled vehicles with ABS.         | 002.IV216MC  |
|                            |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For single-wheeled vehicles with ABS.         | 002.IV216MH  |
| Iveco Daily IV/V (35C)     | 2006–2014  | 1-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For twin-wheeled vehicles with ABS.           | 002.IV323MC  |
|                            |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For twin-wheeled vehicles with ABS.           | 002.IV323MH  |
| Iveco Daily IV/V (50C)     | 2006–2014  | 1-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For twin-wheeled vehicles with ABS.           | 002.IV333MC  |
|                            |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. For twin-wheeled vehicles with ABS.           | 002.IV333MH  |
| Illuminated pressure gauge | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |  | 02.122WE-UPG |



#### Notes

- These systems are suitable for uprating depending on the model (from page 10)
- Products for other models on request
- Various control units are available as an option for the systems listed here (page 33/58)



## Auxiliary air springs for the Iveco Daily (FA)

The auxiliary air springs for the front axle of the Iveco Daily 50/60/65/70C has already fascinated many mobile home drivers. Goldschmitt offers this system in conjunction with track widening. In this way, you have considerably better road handling, greater comfort and more safety.



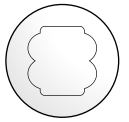
### Important information

#### Advantages:

- Prevents front end from dipping
- Provides more ground clearance at front axle
- Flexible adaptation of spring rate
- Standard springs are supported

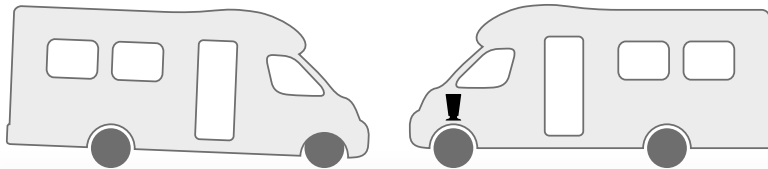
#### Particularly suitable for:

- Fully integrated motorhomes
- Vehicles with high front axle load
- Motorhomes with low front skirt
- Vehicles with low ground clearance



The revolutionary auxiliary air spring for the front axle of the Daily is well regarded among Iveco drivers. The sturdy air bellows support the structure and provide sufficient reserves in order to pamper the passengers with the best possible comfort and highest level of safety. The guarantee of this clearly improved handling is not only the outstanding auxiliary air spring itself, but also the track widening associated with its fitting. On the Iveco Daily 50C, the width is 116 millimetres greater, on the 60/65/70C it is still a respectable 74 millimetres, which is noticeable through the improved road positioning. The air spring can be retrofitted easily on vehicles with or without higher cab.

All auxiliary air spring systems from Goldschmitt come with a compressor and cab control unit so that you can check and regulate the air pressure in the air bags conveniently. Illuminated pressure gauges are available as an option.



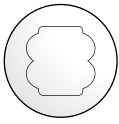
The auxiliary air springs on the front axle lift the front of the vehicle and provide sufficient spring travel and flexible adjustment of the spring rate.

| Vehicle                    | Model year   | Notes and characteristics   | Part no.:    |
|----------------------------|--|---|--------------|
| Iveco Daily IV/V (50C)     | 2006–2014  | 1-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (116 mm). Including compressor and in-cab control unit. | on request   |
|                            |  | 2-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (116 mm). Including compressor and in-cab control unit. | on request   |
| Iveco Daily IV/V (60/65C)  | 2006–2014  | 1-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (74 mm). Including compressor and in-cab control unit.  | on request   |
|                            |  | 2-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (74 mm). Including compressor and in-cab control unit.  | on request   |
| Iveco Daily IV/V (70C)     | 2006–2014  | 1-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (74 mm). Including compressor and in-cab control unit.  | on request   |
|                            |  | 2-circuit system for front axle (rolling lobe air spring system with 2 bellows) inc. track widening (74 mm). Including compressor and in-cab control unit.  | on request   |
| Illuminated pressure gauge | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |   | 02.122WE-UPG |



Notes

- These systems are available for vehicles with or without higher cabs
- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- Various control units are available as an option for the systems listed here (page 33/58)
- Products for other vehicles on request



# Auxiliary air springs for the Mercedes Sprinter

Not every customer knows that the Daimler and VW small vans have identical genes. Not only can these Goldschmitt auxiliary air springs be installed on the latest models of the Mercedes Sprinter, therefore, but also on the VW Crafter.



## Important information

### ✓ Advantages:

- Rear of vehicle is raised
- Improved road handling
- Body roll is reduced
- Flexible adaptation of spring rate
- Standard springs are supported

### ✓ Particularly suitable for:

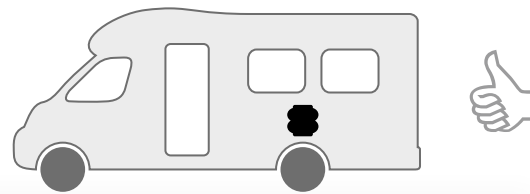
- Vehicles where load is taken at rear
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with low rear and side skirts



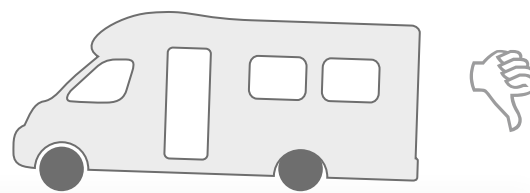
## Mercedes Sprinter (from 2006)

The latest Sprinter models, which have populated our road network since 2006, really make their predecessors look old. Even the Crafter, the designer model from VW, is barely recognisable as a direct descendant of the VW LT. The tradesman's friend from Lower Saxony and the powerful Swabian have common genes as they both use the same platform. This means that the respective air springs can be deployed in the Mercedes Sprinter and VW Crafter.

The standard steel springs are supported by extremely tough double folding bellows. These are well suited for balancing out unfavourable load situations, long overhangs or high centres of gravity and can also reduce body roll and side wind sensitivity. For all twin tyre Sprinter and Crafter models, high volume single chamber bellows are available that also cope with exceptionally high axle loads.



The auxiliary air springs raise the rear and ensure that there is sufficient spring travel.



For vehicles with high rear axle loads, the standard steel springs are often overstrained.

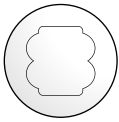


## Mercedes Sprinter (1995–2006)

For many years, air springs from Goldschmitt have been popular and, above all, reliable aids when it comes to safety and comfort. This also applies to the older Sprinter chassis suspension from Mercedes (1995–2006). The air bags can be mounted easily and reliably using complicated assembly aids, and transfer the spring forces to the vehicle frame particularly gently. Depending on the vehicle model, rolling lobe, tapered sleeve or double folding bellows are used. The air pressure can be monitored at all times via the clearly laid out control unit in the cab, and quickly and conveniently regulated via the standard compressor system. Apart from the 1-circuit system, we will gladly also offer you the trusted 2-circuit system with which one-sided imbalance can be levelled out and sloping vehicles can be raised to the correct height.

In conjunction with our special shock absorbers, every Sprinter can maintain the road handling that is tailored optimally to the respective use. Our anti-roll bars help to perfect our stability program.





## Optimisation for the Mercedes Sprinter 616

With the Mercedes Sprinter 616 chassis, most loading problems have been dealt with. Apart from a high performing engine, the mightiest Sprinter of all time offers a rear axle with an even greater load-bearing capacity. For commercial as well as recreational use, the Sprinter 616 is invaluable. Reason enough for us to develop an auxiliary air spring for the rear axle that reflects the qualities of this transporter in full and offers significant advantages, above all, for motorhomes.

The 4-bellows system is predestined for high bodies to reduce vibrations. With the standard compressor, the rear can be raised from the cockpit to improve the breakover angle in connection with long overhangs.

Our air springs can play their trump cards in terms of comfort as well, particularly as the level of comfort remains the same, regardless of whether the vehicle is laden or unladen. Thanks to a completely new design of support elements, the exchange of power between vehicle frame and axle is very smooth. The passengers and body are the grateful recipients of this. Our air spring for the Mercedes Sprinter 616 – a system worthy of more than one star.



Mercedes Sprinter 208–316 with 2-bellows system (taper sleeve). The large assembly brackets transfer the forces to the frame particularly smoothly. Cleverly engineered threaded connections enable fast and secure assembly.

## AirCell: The slightly different air spring

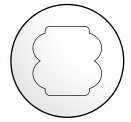
On vehicles with a high front axle load, the stop buffer often brings the spring travel abruptly to an end in extreme situations. Our AirCell supports the work of the spring gently by intervening before the conventional hard rubber stop is reached. With its cellular structure, the force is significantly reduced without hard impacts.

In contrast to standard stop buffers, the AirCell offers much softer suspension comfort. The difference is far more noticeable the more the front axle is placed under load. The AirCell is made of polyurethane. It has tiny, enclosed microcells filled with air. As soon as the AirCell is compressed, the enclosed air bubbles are compressed more and more.

For the Sprinter 616, we also offer a reinforced front axle leaf spring. This spring is suitable for fully integrated vehicles on which the standard spring is hugely overstrained due to the high front axle load. In conjunction with our AirCell, you have an optimal solution for the front axle of the Sprinter.



The microcells of the AirCell are compressed under load and generate a counterpressure in this way. Bumps and potholes are comfortably smoothed out. Hard impacts are reduced significantly. The passengers and the body are protected.

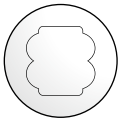


| Vehicle   | Model year   | Notes and characteristics   | Part no.:    |
|---|--|---|--------------|
| Mercedes-Benz Sprinter<br>(model T1N   208-316)<br>Panel vans, crew cabs, buses | 1995-2006  | 1-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB219MA  |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB219MF  |
| Mercedes-Benz Sprinter<br>(model T1N   208-316)<br>Motorhomes, dropsiders       | 1995-2006  | 1-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB228MA  |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB228MF  |
| Mercedes-Benz Sprinter<br>(model T1N   208-416)                                 | 1995-2006  | Auxiliary air springs »AirCell« for front axle.   | 005.MB240    |
| Mercedes-Benz Sprinter<br>(model T1N   408-416)<br>Panel vans, crew cabs, buses | 1995-2006  | 1-circuit system for rear axle (rolling lobe air spring system with 4 bellows).<br>Including compressor and in-cab control unit.                          | 002.MB25NMA  |
|   |  | 2-circuit system for rear axle (rolling lobe air spring system with 4 bellows).<br>Including compressor and in-cab control unit.                          | 002.MB25NMF  |
| Mercedes-Benz Sprinter<br>(model T1N   408-416)<br>Motorhomes, dropsiders       | 1995-2006  | 1-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB26NMA  |
|   |  | 2-circuit system for rear axle (air spring system with 2 tapered bellows).<br>Including compressor and in-cab control unit.                               | 002.MB26NMF  |
| Mercedes-Benz Sprinter<br>(model T1N   616)                                     | 2000-2006  | 1-circuit system for rear axle (air spring system with 4 double folding bellows, 6 inch).<br>Including compressor and in-cab control unit.                | 002.MB28QKA  |
|   |  | 2-circuit system for rear axle (air spring system with 4 double folding bellows, 6 inch).<br>Including compressor and in-cab control unit.                | 002.MB28QKF  |
|   |  | Auxiliary air springs »AirCell« for front axle.   | 005.MB280    |
|   |  | Front axle optimisation, comprising replacement leaf springs and »AirCell« for the front axle.  | 003.MB2839   |
| Mercedes-Benz Sprinter<br>(model NCV3   209-324)                                | from 2006  | 1-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Suitable for dropsiders and panel vans. | 002.MB151MC  |
|   |  | 2-circuit system for rear axle (double folding bellows, 6 inch).<br>Including compressor and in-cab control unit. Suitable for dropsiders and panel vans. | 002.MB151MH  |
| Mercedes-Benz Sprinter<br>(model NCV3   509-524)                                | from 2006  | 1-circuit system for rear axle (single chamber bellows, 6 inch).<br>Including compressor and in-cab control unit. Suitable for dropsiders and panel vans. | 002.MB16APC  |
|   |  | 2-circuit system for rear axle (single chamber bellows, 6 inch).<br>Including compressor and in-cab control unit. Suitable for dropsiders and panel vans. | 002.MB16APH  |
| Mercedes-Benz Sprinter<br>(model NCV3   209-324)                                | from 2006  | Auxiliary air springs »AirCell« for front axle.   | 005.MB150    |
| Illuminated pressure gauge  | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |   | 02.122WE-UPG |



## Notes

- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for other vehicles or older models are available on request
- Various control units are available as an option for the systems listed here (page 33/58)



## Auxiliary air springs for the MAN TGL (FA)

The MAN is first choice for especially big integrated and alcove models.

Goldschmitt has taken care of the front axle. With the auxiliary air spring for the front axle, road handling and driving comfort are improved on the former "Truck of the Year".



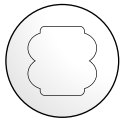
### Important information

#### ✓ Advantages:

- Prevents front end from dipping
- Provides more ground clearance at front axle
- Flexible adaptation of spring rate
- Standard springs are supported

#### ✓ Particularly suitable for:

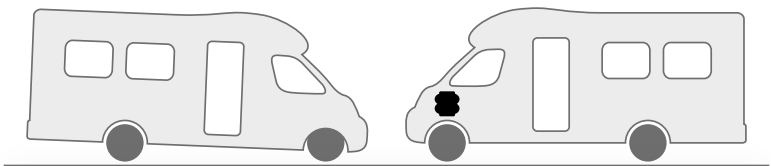
- Fully integrated motorhomes
- Vehicles with high front axle load
- Motorhomes with low front skirt
- Vehicles with low ground clearance



If a customer is looking for a modern base vehicle in the motorhome category of 7.5 ton and upwards, then the time is ripe for MAN. With its excellent road handling properties and frugal operation, the former "Truck of the Year" is the ideal basis for luxury motorhomes.

But good can be made even better, which is why Goldschmitt has developed an auxiliary air spring for the front axle of the MAN TGL. With this air spring, the front axle can be adapted precisely to the current vehicle weight, the road conditions or the individual driving experience. The air bags draw compressed air from the vehicle's own compressed air system and are regulated via a control unit in the cockpit. Illuminated pressure gauges are available as an option (page 33/58).

On the heels of the success of the Iveco front axle air spring, Goldschmitt rounds off the product range for high quality motorhome chassis between 5 and 12 tons with the MAN version.



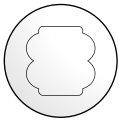
The air springs on the front axle raise the front-end and ensure adequate spring travel and flexible adaptation of the suspension properties.

| Vehicle                    | Model year | Notes and characteristics  | Part no.:    |
|----------------------------|------------|--|--------------|
| MAN TGL                    | from 2005  | 1-circuit system for front axle (air spring system with 2 double folding bellows). Including cab control unit (pneumatic). | 002.MN11ROD  |
|                            |            | 2-circuit system for front axle (air spring system with 2 double folding bellows). Including cab control unit (pneumatic). | 002.MN11ROI  |
| Illuminated pressure gauge |            | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed.           | 02.122WE-UPG |



Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- The air spring system can only be installed on vehicles with emissions standard Euro 3. Where the emissions standard is higher, the effort required for installation is more intense. Speak to our customer service advisers.
- The air spring system uses the vehicle's own compressed air supply



## Auxiliary air springs for offroad vehicles

Off-road vehicles and pick-ups are enjoying increasing popularity.

The high quality auxiliary air springs from Goldschmitt help heavy offroaders with a hardtop or camper body to achieve greater driving comfort and driving safety.

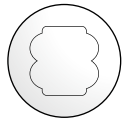


The leisure industry meanwhile offers a whole range of high quality accessories for offroad vehicles. From hardtops to camper bodies, a great deal is available. The versatile means of deployment pose a few problems, however, for which the vehicle manufacturer has no solutions to hand.

The springs on the rear axle are designed only for a mixed loading situation on almost all vehicles. There is always a compromise in terms of adaptation. While the vehicle handling can still be considered satisfactory when driven empty or partially loaded, interchangeable bodies with their long overhang and high centre of gravity are too much for the standard leaf springs.

Air springs from Goldschmitt support the standard rear axle springs and facilitate greater driving comfort and driving safety on pick-ups with a long overhang and high centre of gravity. Vehicles with a hardtop or camper body, in particular, profit from the air springs. Impressive comfort and outstanding quality are the reasons why our products are used by almost all of the renowned camper body manufacturers.

The high quality air spring systems from Goldschmitt are equipped as standard with a compressor and a cab control unit. Whether off-road or on the motorway – you simply select the correct air pressure by pressing a button.



The illustration shows the scope of supply for the double folding bellows system of the Ford Ranger from model year 2012. Compressor and cab control unit are included.

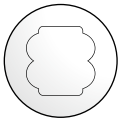


| Vehicle                                 | Model year   | Notes and characteristics   | Part no.:    |
|---|--|---|--------------|
| Ford Ranger (all wheel drive)           | 1998–2006  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.FO011MF  |
| Ford Ranger (all wheel drive)           | 2006–2012  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.FO021MF  |
| Ford Ranger (all wheel drive)           | from 2012  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit. Not suitable for the »Limited« and »Wildtrak« versions with 265/60/R18 and 265/65/R17 tyres. | 002.FO031MF  |
| Isuzu D-Max (all wheel drive)           | from 2006  | Products for the Isuzu D-Max can be found on page 57.   |              |
| Isuzu Trooper (all-wheel drive)         | 1992–1999  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.OP411MF  |
| Mazda B2500 (all-wheel drive)           | 1998–2006  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.MA111MF  |
| Mazda BT -50 (all wheel drive)          | from 2006  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.MA211MF  |
| Mitsubishi L200 (all wheel drive)       | 2001–2006  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.MI151MF  |
| Mitsubishi L200 (all wheel drive)       | from 2006  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.MI161MF  |
| Nissan Navara D21/D22 (all wheel drive) | 1986–2004  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.NI411MF  |
| Nissan Navara D40 (all wheel drive)     | from 2005  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.NI425MF  |
| Opel Campo (all wheel drive)            | 1992–2001  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.OP411MF  |
| Toyota Hilux (all wheel drive)          | 1989–2005  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.TO111MF  |
| Toyota Hilux (all wheel drive)          | from 2005  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.TO13LMF  |
| VW Amarok                               | from 2010  | Products for the VW Amarok can be found on page 56.   |              |
| VW Taro (all wheel drive)               | 1989–2005  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and in-cab control unit.  | 002.VW721MF  |
| Illuminated pressure gauge              | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |   | 02.122WE-UPG |



## Notes

- All of the air spring systems listed here are also available as a 1-circuit system
- Once these have been successfully installed, only partial twisting of the vehicle is possible
- Air spring sets for other offroad vehicles and pick-ups and for practically all US vans may be supplied on request with English installation instructions. There is no German part approval report for these vehicles and so TÜV registration requires individual approval.



# Auxiliary air springs for the VW Amarok

The VW Amarok has established itself extremely well in the world of recreational vehicles. Manufacturers of hardtops and camper bodies are favouring the model from Wolfsburg more and more. Goldschmitt equips the Amarok with air springs – for more safety and greater driving comfort.



The VW Amarok gained many fans even after a short time on the market. Manufacturers of hardtops and camper bodies favour the Amarok, too. The heavy weight and higher centre of gravity of offroad vehicles negatively influences their handling. Goldschmitt offers ways to upgrade the vehicles by means of auxiliary air springs, which are used on the rear axle of the Amarok.

The air spring system for the Amarok comprises two high quality rolling lobe bellows, which smooth out hard impacts and iron out unevenness in the road surface and transfer the spring forces gently to the vehicle frame via solid steel brackets. The air bellows are mounted in addition to the existing steel springs and thereby support the Amarok's coil springs. As with all auxiliary air springs from Goldschmitt, the Amarok air spring is equipped with a compressor and control unit as standard.

Aside from benefiting from greater driving safety, improved driving dynamics and comfort, the VW Amarok can be updated to a maximum permissible weight of 3400 kg with the aid of our auxiliary air springs. Our upgrading options can be found on pages 10 to 13.



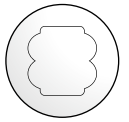
| Vehicle                    | Model year   | Notes and characteristics   | Part no.:      |
|----------------------------|--|---|----------------|
| VW Amarok                  | from 2010  | 1-circuit system for rear axle (rolling lobe air spring system with 2 bellows) inc. spacers. Incl. compressor and in-cab control unit. Individual adaptation depending on wheel and tyre combination. | 002.VW81CBA-xx |
| VW Amarok                  | from 2010  | 2-circuit system for rear axle (rolling lobe air spring system with 2 bellows) inc. spacers. Incl. compressor and in-cab control unit. Individual adaptation depending on wheel and tyre combination. | 002.VW81CMF-xx |
| Illuminated pressure gauge | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed. |   | 02.122WE-UPG   |



### Note

- These systems are suitable for upgrading (from page 10)
- Auxiliary springs are used on tail-heavy vehicles
- Once these have been successfully installed, only partial twisting of the vehicle is possible
- Air spring sets for other vehicles are available on request





# Auxiliary air springs for the Isuzu D Max

In the summer of 2012, Isuzu introduced the second generation of the popular Japanese pick-up truck. In co-operation with Isuzu Germany, Goldschmitt developed a high quality air spring system both for the current model and for the predecessor model of the Isuzu D Max.

The popularity of the D Max brought about the second generation of the offroad Isuzu truck in the summer of 2012. With appropriate cabin attachments, the D Max can be turned into an all-wheel drive motorhome with just a few twists and turns. The standard suspension on these vehicles, however, is not designed for replacement bodies of this kind and does not offer satisfactory spring comfort and good road handling.

Auxiliary air springs from Goldschmitt support the overloaded leaf springs and help the D Max to achieve greater driving comfort and driving safety. The standard steel springs of the rear axle are supported by heavy duty tapered bellows that positively influence road handling in all load and road surface conditions. Compressor and cab control unit are included in the scope of supply.



| Vehicle                             | Model year | Notes and characteristics   | Part no.:      |
|-------------------------------------|------------|---|----------------|
| Isuzu D-Max (all wheel drive)       | 2006–2012  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including Bilstein gas-filled shock absorbers, compressor and in-cab control unit. | 002.IS116MF    |
| Isuzu D-Max (all wheel drive)       | from 2012  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including Bilstein gas-filled shock absorbers, compressor and in-cab control unit. | 002.IS126MG    |
| Isuzu D-Max (all wheel drive)       | from 2012  | 2-circuit system for rear axle (air spring system with 2 tapered bellows). Including compressor and control unit.   | 002.IS126MG-01 |
| Accessories                         |            | Notes and characteristics   | Part no.:      |
| Illuminated pressure gauge          |            | The upgrade pack contains one pressure gauge (page 33/58). On 2-circuit systems, two pressure gauges are needed.  | 02.122WE-UPG   |
| Aluminium rim GSH3                  |            | 7.5 x 17 inch, LK 6 x 139.7 mm, offset 33, load rating: 1125 kg, colour: Crystal Silver (page 92 to 95)   | 004.ISH37512KS |
| Aluminium rim GSH9                  |            | 7.0 x 16 inch, LK 6 x 139.7 mm, offset 30, load rating: 1050 kg, colour: Crystal Silver (page 92 to 95)   | 004.ISH96412KS |
| Bilstein gas-filled shock absorbers |            | Shock absorber set (qty. 2) for rear axle of Isuzu D-Max (from model year 2012)   | 12.ISZ2020103  |



## Notes

- These systems are suitable for upgrading (from page 10)
- Auxiliary springs are used on tail-heavy vehicles
- Once these have been successfully installed, only partial twisting of the vehicle is possible
- Air spring sets for other vehicles are available on request



## Auxiliary air springs | Individual components

|                              |   |   |
|------------------------------|---|---|
| Universal                    |   |   |
|                              | 1-circuit control unit<br>Part no.: DLM02.1226-1              | 2-circuit control unit<br>Part no.: DLM02.1286-1  |
| Fiat Ducato, model 250       |   |   |
|                              | 1-circuit control unit<br>Part no.: DLM02.122-75              | 2-circuit control unit<br>Part no.: DLM02.122-16  |
| Fiat Ducato, model 244       |   |   |
|                              | 1-circuit control unit<br>Part no.: DLM02.122-721             | 2-circuit control unit<br>Part no.: DLM02.122-60  |
| Ford Transit 2006            |   |   |
|                              | 1-circuit control unit<br>Part no.: DLM02.122-56              | 2-circuit control unit<br>Part no.: DLM02.122-551 |
| Renault Master               |   |   |
|                              | 1-circuit control unit<br>Part no.: 02.OP1301                 | 2-circuit control unit<br>Part no.: 02.OP1302     |
| Radio slot panel             |   |   |
|                              | 1-circuit control unit<br>Part no.: DLM02.122-531             | 2-circuit control unit<br>Part no.: DLM02.122-141 |
| Pressure gauge (illuminated) |   |   |
|                              | Illuminated pressure gauge (qty. 1)<br>Part no.: 02.122WE-UPG |   |

|   |   |                        |                         |
|---|---|------------------------|-------------------------|
|   |   |                        |                         |
| Air hose   50 m   yellow                              | Part no.: DLT02.T0604Y                                | Air hose   50 m   blue | Part no.: DLT02.T0604BU |
| Air hose   10 m   yellow                              | Part no.: DLT02.GM100                                 | Air hose   10 m   blue | Part no.: DLT02.BM100   |
|   |   |                        |                         |
| Air tank   5 litre                                    | Part no.: ADC22.5000                                  | Air tank   10 litre    | Part no.: ADC22.5100    |
|   |   |                        |                         |
| Low-pressure switch<br>Part no.: 02.NF0100            | Non-return valve (qty. 1)<br>Part no.: DLV02.AKH06-00 |                        |                         |
|   |   |                        |                         |
| Connector   straight (qty. 1)<br>Part no.: DLC6GV-06S | Connector   T-piece (qty. 1)<br>Part no.: DLC6T-06S   |                        |                         |
|   |   |                        |                         |
| Hose cutter   metal<br>Part no.: WE02.116-CUT         | Hose cutter   plastic<br>Part no.: WE02.139           |                        |                         |



## Compressors

All data based on laboratory conditions and may differ in practice.



| Designation                      |       | Medium         | Compact         | Heavy           | SuperHeavy      |
|----------------------------------|-------|----------------|-----------------|-----------------|-----------------|
| Part no.:                        |       | 02.KK00090     | 02.KK00080      | 02.KK00050      | 02.KK00060      |
| Dimensions in mm (L x W X H)     |       | 155 x 85 x 135 | 220 x 100 x 170 | 250 x 100 x 173 | 285 x 100 x 173 |
| Weight in kg                     |       | 1,85           | 3,65            | 4,26            | 5,40            |
| Noise level in dB(A)             |       | 85             | 82              | 82              | 82              |
| Current draw (A), 8 bar          |       | 12             | 18              | 18,5            | 20,8            |
| Voltage in V                     |       | 12             | 12              | 12              | 12              |
| Max. permissible pressure in bar |       | 8,97           | 10,35           | 10,35           | 10,35           |
| Operation time in %              |       | 15             | 33              | 100             | 100             |
| Filling time 1 gallon            | 2 bar | 24 s           | 16 s            | 15 s            | 11 s            |
|                                  | 4 bar | 54 s           | 35 s            | 33 s            | 25 s            |
|                                  | 6 bar | 88 s           | 57 s            | 54 s            | 40 s            |
|                                  | 8 bar | 130 s          | 88 s            | 77 s            | 58 s            |
| Filling time 3 gallons           | 2 bar | 66 s           | 39 s            | 39 s            | 30 s            |
|                                  | 4 bar | 147 s          | 86 s            | 88 s            | 62 s            |
|                                  | 6 bar | 246 s          | 138 s           | 142 s           | 107 s           |

## Goldschmitt assortment box Air spring service (item no. 02.00001)

- 2x emergency filling valves (Ø 6 mm, plug-in)
- 2x breather valves (Ø 6 mm, plug-in)
- 1x pressure gauge (Ø 6 mm, 1/4")
- 1x liquid thread seal (10 ml)
- 1x hose cutter (plastic)
- 2x preformed hose for control unit (Ø 4 mm)
- 5x non-return connectors (Ø 6 mm, plug-in)
- 2x reduction pieces (Ø 6 mm, Ø 4 mm, plug-in)
- 2x straight push-fit threaded connections (Ø 4 mm, plug-in, M5G)
- 1x pneumatic hose (Ø 6 mm, 0,5 m, yellow)
- 1x pneumatic hose (Ø 6 mm, 0,5 m, blue)
- 5x pneumatic angle connectors (Ø 6 mm, plug-in, 1/8" NPT thread)
- 5x pneumatic angle connectors (Ø 6 mm, plug-in, 1/4" NPT thread)
- 5x straight connectors (Ø 6 mm, plug-in)
- 2x Y-connectors (Ø 6 mm, plug-in)
- 1x pressure gauge M5
- 2x adapters (Ø 1/4", plug-in, Ø 6 mm, plug-in)
- 2x straight push-fit threaded connections (Ø 6 mm, plug-in, 1/8")
- 2x straight push-fit threaded connections (Ø 6 mm, plug-in, 1/4")
- 5x T-connectors (Ø 6 mm, plug-in)
- 1x leak detection spray (100 ml)





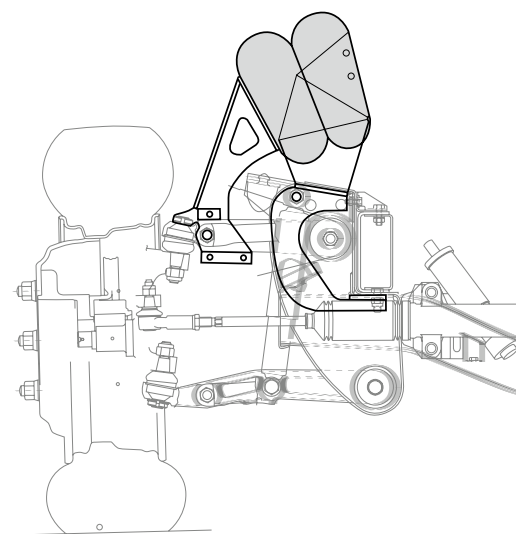


# Maximum comfort

Full air suspension from Goldschmitt is the nonplus ultra in terms of comfort and safety. The regal class among chassis suspension systems is enjoying increasing popularity among motorhomers.

A fine legend: The particularly comfortable air suspension was the reason Pope Paul VI. allegedly opted for a Mercedes 600 as a Popemobile in the 60s. And what's good enough for a pope can't do any harm at least to motorhomers. So, Goldschmitt has been working for years on achieving the best possible driving comfort with full air spring chassis suspension systems for recreational vehicles. This technology is quasi the regal class among chassis suspension systems – you just have to look at all the noble

passenger vehicles that are equipped with it: The Rolls Royce Phantom has full air suspension as, too, do the luxury bodies of the Maybach and Mercedes, the VW Phaeton or the Audi A8. Four and five star touring coaches are – of course – also fitted with this technology; after all, passengers want to arrive at their destination in comfort. There is also another pleasant side-effect: Full air spring systems not only provide a gentle ride for the vehicle occupants but also for the chassis and body, too.



Initial experiments with air suspension were carried out in the automotive industry as far back as the 1920s. But it wasn't until the post-war era that air suspension systems began to appear in American road cruisers. The pioneer in Europe was the erstwhile luxury vehicle manufacturer Borgward who



Barely surpassable in terms of driving comfort: You can't really imagine the world of motorhomes without full air springs from Goldschmitt.



In ambulances and modern mobile homes, full air springs are now indispensable. They assure maximum driving comfort for the passengers, driver and interior.

equipped his Model P 100 with it. Shortly afterwards, Mercedes presented its luxury variants 300 SE and the legendary 600 with air suspension systems.

You only have to play around with an air pump to grasp the principle of this technology: If you keep your finger over the air outlet, the plunger cannot be pressed down – the compressed air inside, however, springs back with strong or weak force depending on how much pressure is exerted. Compared with conventional steel springs, air suspension systems in

vehicles have a great advantage because the weight exerted on them can be varied without the spring travel being altered.

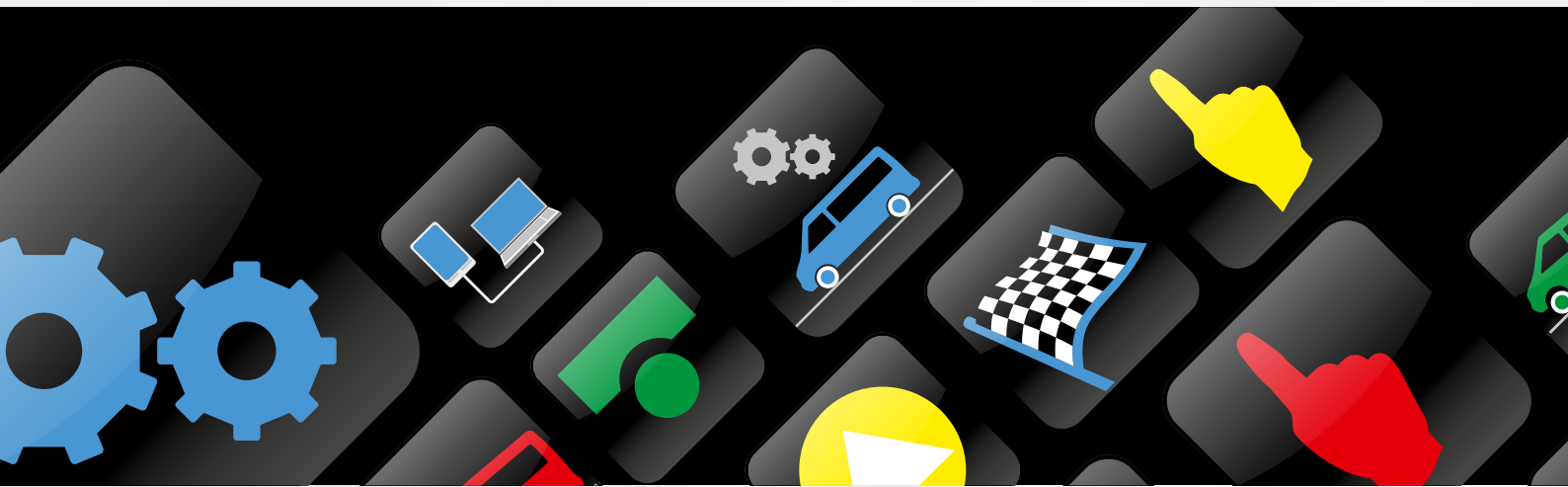
The nonplus ultra for motorhomes are electronically-controlled full air suspension systems, where air suspension struts and air springs take over completely from classic steel spring configurations with leaf springs and coil springs or torsion bars. The main component is the control block installed on the vehicle platform that houses the compressor unit, which

supplies the air springs with the necessary pressure. Furthermore, the electronics are located here, which keep the vehicle at a specified height irrespective of the load status. Different raising and lowering functions are also easily facilitated at the press of a button: To drive into low carports or garages, the vehicle can be dipped down. Likewise, it can be put up on stilts to negotiate rough terrain or drive up the ramp of a ferry to prevent the body from bottoming out.

On motorhomes with their stately bodies, full air systems also have a positive effect on road handling overall: Body roll is a thing of the past, motorhomes stay much easier on track than with standard chassis suspension systems made of steel, even in corners the vehicles are far less likely to break out.

For the Fiat Ducato, a particular favourite in the motorhome scene, Goldschmitt was the first to offer a production-ready full air suspension system. And what a system! Objective measurements revealed that comfort is increased by a massive 40 percent compared with the standard chassis suspension. The pope was to drive a mobile with Goldschmitt technology ...





## AirDriveControl®

The new AirDriveControl® feature offers you unbelievable comfort when it comes to controlling your air spring system. Thanks to the innovative control unit with touchscreen, operation of your full air spring becomes child's play.

With air springs and levelling systems, Goldschmitt has been a creative force in the motorhome industry for many years. The systems have always been state-of-the-art. As such, the latest achievements from Odenwald represent an innovation that is hard to beat.

With the AirDriveControl® (ADC) feature, Goldschmitt presents an intuitive control system that can do more than all of the predecessor models or products from the competition. Operation via the 3.5 inch touchscreen is no harder than it is to operate a smartphone. The user is given simple guidance on the display and directed through the clear menu in a targeted manner.

[The function overview of the AirDriveControl® unit can be found on page 65.](#)

As if development of the new control unit (AirDriveTouch®) was not enough in terms of innovation, Goldschmitt has fundamentally improved the control system of the trusted full air spring systems. With the use of new components, you can level your vehicle more quickly and precisely than before. Through integration of a triple axis acceleration sensor, meeting the higher demands of vehicles with ESP is also possible.

### The advantages of the AirDriveControl® unit

- 3.5 inch touchscreen
- Intuitive user interface
- Four programmable ride heights
- Auto Level function
- Different wheel loads are compensated
- Numerous control options
- EMC-tested and approved
- Safest air suspension controls on the market
- Various languages available
- Self-diagnosis through system self tests
- Calculation of axle loads at the press of a button
- Latest quality standards



## Improved quality and a saving in weight

New sensors, improved air supply, waterproof wiring connections and optimised wiring harnesses – the AirDriveControl® unit is the best quality air spring control system of all time. A thermal sensor also monitors the temperature of the compressor and thereby protects the system against overheating.

To guarantee you a safe journey, the ADC performs a self test every time the system is started. With this self-diagnosis, any damage to the system is localised and the user is notified by way of text and image. Apart from the system's integrated self-diagnosis there is also the option of interrogating the control unit with a PC with no additional effort.

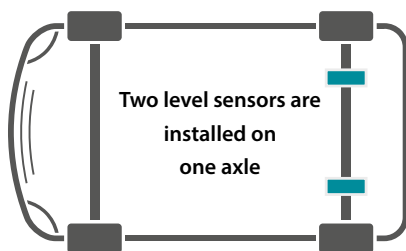
In addition to the improved quality of all of the components, it was also possible to reduce the weight of many of the components. Through the increased air supply pressure from ten to fifteen bar, not only is the levelling significantly faster but the tank size and tank weight have also been markedly reduced. This facilitates a higher payload for your motorhome compared with other systems.

## New driving mode kinder on the wallet and the environment

Normal, raised and lowered ride height – the three classic ride heights have been standard functions of the 4-channel air spring from Goldschmitt from the start.

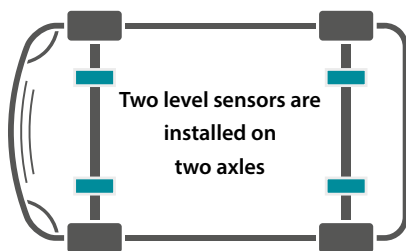
With the so-called Economy Drive, the AirDriveControl® unit is enhanced by an additional indispensable option. Once the vehicle reaches a specific speed defined during installation, the motorhome lowers automatically by up to 20 millimetres. The lower centre of gravity achieved in this way improves driving dynamics and reduces side wind sensitivity enormously. Air turbulence from goods vehicles travelling in the opposite direction are nowhere near as strong thanks to the Economy Drive. In this way, a completely new driving feeling and more driving safety are achieved on the road.

Another advantage of the aerodynamics is the reduced fuel consumption. Not just petrol and diesel prices but also climate change have forced us to drive with greater awareness in terms of economy and ecology. Lower fuel consumption is less of a burden on your wallet and, not least, the environment.



### 2-channel system

The 2-channel automatic levelling devices feature two level sensors that are normally mounted on the rear axle. The air from the compressor is distributed over two separate circuits and directed to the air bellows of the left and right-hand side. The system is thereby capable of detecting one-sided wheel loads and can compensate for this by adjusting the wheel height. From the ride height, the rear can be raised or lowered by means of the control unit. The standard heights stored in the system can be programmed according to the customer's requirements.



### 4-channel system

The 4-channel automatic levelling device differs as it has more complex components than the 2-channel control system described above. Each of the four air bags has its own level sensor. In this way, different wheel loads can be balanced out automatically. Apart from selecting the stored ride heights, the whole vehicle can be raised or lowered. With the auto levelling function, the vehicle can also be aligned horizontally at the press of a button.





# AirDriveTouch®

Goldschmitt employs a newly developed touchscreen for its air spring AirDriveControl® unit.



Smartphones without touchscreen are unimaginable these days. Why not use this innovative and trusted technology for an air spring control unit as well? This question was posed by Goldschmitt technicians, who subsequently developed a control unit that is unique in terms of user-friendliness, clear layout and convenience.

With the intuitive AirDriveTouch® unit, Goldschmitt fulfils the wish of many customers for an even more comfortable way to control the full air springs. Four individually adjustable ride heights, tilt to one side or lowering of the rear can be selected by finger on the touchscreen as, too, can the Auto Level function which is reserved for the 4-channel system on the front and rear axle. With this function, the motorhome is brought to an even level at the press of a button provided the spring travel is sufficient.

With the new AirDriveTouch® feature, Goldschmitt has achieved a huge step forwards in terms of comfort and user-friendliness. A detailed description of the range of functions can be found in the right-hand column.

- Ride height**
- Raised level/offroad**
- Lowered level**
- Sport mode/Economy Drive**

These settings can be programmed individually.

### **Auto Level (4-channel system)**

The vehicle rests in the horizontal plane provided the spring rate allows.

### **Service mode**

The service mode switches the system off and prevents automatic regulation of the air springs in the event a wheel has to be changed, for example.

### **Settings/diagnosis**

The event memory can be interrogated, the language can be changed and various configurations can be adjusted under the »Settings« option. Live data, such as voltage, air pressure and compressor temperature, can also be shown on the display.

### **Manual operating mode**

In this mode, you can raise or lower the vehicle to a specific height with infinite variability. Custom positions can be stored and actuated as required in the same way.

### **Lowering rear of vehicle (optional)**

The rear end of the vehicle is lowered to the saved position.

### **Lowering side of vehicle (optional)**

The vehicle is tilted to one side according to a predefined setting.

### **Weighing function (optional)**

The axle loads are calculated and displayed.

### **Day/night mode**

The display changes from a blue to a white background.



## Full air springs for the Fiat Ducato

When it comes to the first choice for air suspension systems, you simply cannot ignore full air spring systems from Goldschmitt. For the Fiat Ducato, Goldschmitt offers various solutions for the front and rear axle – including the new AirDriveControl® unit.



### Important information

#### ✓ Advantages:

- Suitable for uprating (page 10)
- Increased driving comfort
- Safe and secure road handling
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

#### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance



The comfort of a 4-channel full air spring was reserved for a long time to drivers of the Iveco Daily or owners of a Fiat Ducato with AL-KO chassis. The choice is now much bigger: Goldschmitt full air spring systems are also available for the front and rear axle of the Fiat Ducato with standard chassis. Together, the Goldschmitt-developed components guarantee the highest level of comfort and safety. In this way, the frame, body, furniture and not least the passengers, too, are protected and transported safely over the tarmac.

### Driving comfort to perfection

Full air spring systems for the Fiat Ducato are available both as a 2-channel system for the front or rear axle as well as a 4-channel system for both axles. All variants assure the highest level of quality and optimise the chassis suspension in their areas as required. During installation, the standard steel springs are replaced by large volume air bags. Innovation, expertise and years of experience have made the full air spring systems from Goldschmitt a reliable and comfortable partner in the world of motorhomes. The perfect interplay of the individual components guarantees a great deal of driving pleasure, perfect driving comfort and the highest level of safety.

### AirDriveControl® – the new control system

In addition to mechanical components, such as the convenient tapered sleeve bellows, Goldschmitt can supply a new innovative control system. The AirDriveControl® unit is the most versatile air spring control system of all time and impresses with many new features.

Regardless of 2-channel or 4-channel system – the AirDriveControl® unit comes with every full air spring from Goldschmitt. Functions such as raising or lowering the front or rear or the automatic levelling device for the left and right-hand side are possible on both systems. The full scope of AirDriveControl® unit functions, however, can only be used on the 4-channel system on the front and rear axle.

Every one of the four air bags is actuated via a dedicated channel. A control unit processes the individual height data and actuates a regulator valve in such a way that air in the respective bellows is added or allowed to escape. Accordingly, the system is not just capable of balancing out different axle loads reliably but also the load of each individual wheel. Furthermore, the 4-channel control system benefits from the luxury of auto levelling. With the aid of an electronic spirit level, the vehicle can be levelled out horizontally at the press of a button provided the spring travel permits.



The full air spring system for the Fiat Ducato is available for the front and rear axle. The combination provides maximum driving comfort for your vehicle. The new air spring AirDriveControl® unit guarantees you comfortable and intuitive operation of your air spring system.



The 3.5 inch touchscreen has easy to follow and intuitive menu guidance. Thanks to the new Economy mode, not only is it possible to relieve the burden on the environment but also on your budget when on the road. At high speeds, the vehicle lowers by up to 20 millimetres and thereby improves the aerodynamics, the road position and also reduces side wind sensitivity. Overtaking HGVs, therefore, is much easier.

Aside from the four programmable ride heights (driving height, lowered, offroad, economy), many positions can be actuated manually. The vehicle can be lowered for loading and unloading at the rear, for example. Lowering one side to empty the grey-water tank is also no problem with the new control system. Thermal sensors, air dryers and waterproof wiring connections protect the system and make the AirDriveControl® unit the safest air spring system on the market.

With the full air spring for the Fiat Ducato, Goldschmitt solves a variety challenges that users could face with the most popular and most important base vehicle in the industry. Even the explosive topic of weight and of course the question of comfort are responded to positively by the new full air suspension. And on campsites and parking spaces, Ducato drivers are in their element once they experience the automatic levelling device on the front and rear axle via the full air springs. A press of the button and the whole vehicle manoeuvres into the horizontal position. Variable ramps are then no longer needed – sitting and sleeping off kilter is a thing of the past.



## The advantages of the Goldschmitt system

- Considerably more driving comfort
- More driving safety
- Loading errors are balanced out by the automatic levelling device
- Uprating option depending on chassis up to 4.5 t
- Wear-free valves
- Unique mounting on the chassis
- Wheel guided with little noise and no play
- No change to axle geometry
- Maintenance-free and self-regenerating air dryer (no icing-up)
- Up to 160 mm spring travel
- Four programmable ride height
- Can be retrofitted on most models
- Developed in Germany



The new AirDriveControl® unit features a touchscreen display with a 3.5 inch screen and an intuitive user interface. Activities of the air spring are shown by self-explanatory symbols and texts.



| Vehicle                                 | Model year | Notes and characteristics   | Part no.:  |
|---|------------|---|------------|
| Fiat Ducato, model 250                  | from 2006  | <p>2-channel system for rear axle (air spring system with 2 tapered bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits all standard chassis (30 Light to 40 Heavy).</p> <p><b>Important: An anti-roll bar must be fitted on the rear axle of the standard chassis if fitting full air springs (page 88/89).</b></p>  | on request |
| Fiat Ducato, model 250 (30/33/35 Light) | from 2006  | <p>2-channel system for front axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits standard chassis 30/33/35 Light, also in conjunction with AL-KO low frame chassis.</p> <p><b>Important: Should a full air spring system already be installed on the rear axle, please speak to one of our customer service advisers. Tel.: +49 (0) 62 83 / 22 29-100.</b></p> | on request |
|   |            | <p>4-channel system for front and rear axle (rolling lobe air spring system with 4 bellows). Including 4-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits standard chassis 30/33/35 Light.</p> <p><b>Important: An anti-roll bar must be fitted on the rear axle of the standard chassis if fitting full air springs (page 88/89).</b></p>   | on request |
| Fiat Ducato, model 250 (35/40 Heavy)    | from 2006  | <p>2-channel system for front axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits standard chassis 35/40 Heavy, also in conjunction with AL-KO low frame chassis.</p> <p><b>Important: Should a full air spring system already be installed on the rear axle, please speak to one of our customer service advisers. Tel.: +49 (0) 62 83 / 22 29-100.</b></p>    | on request |
|   |            | <p>4-channel system for front and rear axle (rolling lobe air spring system with 4 bellows). Including 4-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits standard chassis 35/40 Heavy.</p> <p><b>Important: An anti-roll bar must be fitted on the rear axle of the standard chassis if fitting full air springs (page 88/89).</b></p>  | on request |



Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification





## Full air springs for AL-KO chassis

AL-KO low frames are very popular in the motorhome industry. Goldschmitt offers perfect driving comfort for these vehicles, too. For the models of the Fiat Ducato and Mercedes Sprinter in conjunction with AMC low frames, 2-channel and also 4-channel solutions available.



### Important information

#### ✓ Advantages:

- Suitable for upgrading (page 10)
- Increased driving comfort
- Safe and secure road handling
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

#### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance



You are already familiar with the auxiliary air springs for torsion bar chassis. With the full air spring systems for AL-KO chassis, we take a decisive step forwards. Until now, the steel springs bore the main load of the vehicle. The air spring had to do with an assisting role. With our full air springs, we turn the relationship around. Large volume air bellows now bear the main load at the rear axle, making it possible to raise and lower the rear with almost no restriction. The ride height remains constant irrespective of payload.

### AirDriveControl® – The revolutionary control system

To achieve the highest level of comfort, Goldschmitt offers not only a 2-channel automatic levelling device for the rear axle but also a 4-channel version for the front and rear axle of the Fiat Ducato. This innovative air chassis suspension balances the load at each individual wheel reliably. The newly developed AirDriveControl® unit for the air suspension and the associated touchscreen, allow simple and reliable control. Apart from the three programmed ride heights, the AirDriveControl® unit offers an ad-



ditional sports mode in the 4-channel version that lowers the vehicle at increased speeds by up to 20 millimetres. This improves fuel consumption and road handling. With the additional manual functions, you can tilt your motorhome to one side or lower the rear axle for loading or unloading. With the Auto Level function, which is only available with the 4-channel control system, your motorhome can be levelled at the press of a button.

| Vehicle  | Model year | Notes and characteristics  | Part no.:  |
|--|------------|--|------------|
| Fiat Ducato, model 250 with AL-KO chassis (single axle)                  | from 2006  | <b>2-channel system for rear axle (air spring system with 2 tapered bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits AL-KO chassis with single axle.  | on request |
| Fiat Ducato, model 250 with AL-KO chassis (tandem axle)                  | from 2006  | <b>2-channel system for rear axle (air spring system with 2 tapered bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits AL-KO chassis with tandem axle.  | on request |
| Fiat Ducato, model 250 (30/33/35 Light) with AL-KO chassis (single axle) | from 2006  | <b>4-channel system for front and rear axle (rolling lobe air spring system with 4 bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits Fiat Ducato X250 (30/33/35 Light) with AL-KO low frame (single axle). | on request |
| Fiat Ducato, model 250 (35/40 Heavy) with AL-KO chassis (single axle)    | from 2006  | <b>4-channel system for front and rear axle (rolling lobe air spring system with 4 bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits Fiat Ducato X250 (35/40 Heavy) with AL-KO low frame (single axle).    | on request |
| Fiat Ducato, model 250 (35/40 Heavy) with AL-KO chassis (tandem axle)    | from 2006  | <b>4-channel system for front and rear axle (rolling lobe air spring system with 4 bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Fits Fiat Ducato X250 (35/40 Heavy) with AL-KO low frame (tandem axle).    | on request |
| Mercedes-Benz Sprinter NCV3 with AL-KO chassis                           | from 2006  | <b>2-channel system for rear axle (air spring system with 2 tapered bellows).</b> Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.   | on request |



#### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification



## Full air springs for the VW T5

In 2007, the T5 celebrated its 50th anniversary but the VW bus is far from being over the hill. For the T5's full air spring systems, Goldschmitt offers the new innovative AirDriveControl® unit. Alongside greater driving comfort and increased safety, the appearance is fantastic.



### Important information

#### ✓ Advantages:

- Increased driving comfort
- Safe and secure road handling
- Reduced tendency to roll
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

#### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance





### The air spring with VW approval

As far back as 2009, Goldschmitt received the coveted document of compliance from Volkswagen AG for the air spring system of the rear axle, which acknowledges unrestricted compatibility of the Goldschmitt system in connection with the VW T5. The crowning glory for the T5 chassis suspension was achieved with Goldschmitt's invention of the full air spring for the front axle. With the 4-channel air springs employed on the front and rear axle, the perfect air suspension is created that places driving safety and comfort in a new dimension.

Installation of the air spring system entails replacement of the original coil springs by large volume air spring bellows. An extremely quiet and low-vibration high performance compressor with self-regenerating and thereby completely maintenance-free air dryer supply the system with compressed air.

### Latest standard – highest quality

By introducing the AirDriveControl® unit for the air suspension, Goldschmitt has raised the benchmark even further in terms of quality and weight. Waterproof wiring connections, new sensors, improved components for air supply and last but not least the unique AirDriveTouch® hand control unit – the premium quality of this modern air spring system could not be any better.



Following comprehensive road tests, both the full air spring for the VW T5 as well as the full air spring for the VW Crafter were issued the document of compliance by Volkswagen AG.





Irrespective of whether you opt for a full air spring system on the rear axle or for a 4-channel solution on the front and rear axle – the comfort, the driving dynamics and not least safety are increased through the innovative full air spring systems for the VW T5. The special gas-filled shock absorbers from Bilstein facilitate optimal adaptation of the full air suspended rear axle and thereby for even greater driving comfort.

## The air spring for all

Special vehicles need special springs. What might be optimal for a dropsider could be a poor choice for an emergency vehicle. Ambulances and motorhomes both struggle with several body-related problems that negatively influence road handling. High payloads, heavy installations and often poorly balanced weight distribution take the standard steel spring system right up to its limit. The springs often start to decline in the level of comfort and, above all, driving safety even after a short period of service.

This is precisely the reason why the use of Goldschmitt's air spring system is particularly beneficial, in some cases even indispensable. With an air spring, not only are the dynamic driving qualities improved. The suspension comfort is far outweighed at the same time. Air springs from Goldschmitt offer a high degree of flexibility – for example, your motorhome can be lowered for loading and unloading and raised in cases of difficult terrain.

## 2-channel or 4-channel: How can we serve you?

In the world of full air springs there are so-called 2-channel and 4-channel systems. What is the difference? 2-channel systems are mounted on the front or rear axle only. 4-channel systems, on the other hand, are mounted on the front and rear axle of a vehicle. The steel springs are replaced completely in the process.

The term »channel« in this case refers to the separate air circuits in the air spring system. For example, a 2-channel system has two air bellows on just one axle, which are monitored by two level sensors and supplied by two separate air circuits. A 4-channel system, on the other hand, features one air bellows and one level sensor at each wheel suspension, i.e. on the front and rear axle. Thanks to separate air circuits, each installed air bellows can be inflated or deflated independently of each other. The advantage of this is that one-sided wheel loads can be balanced out automatically by increasing the air pressure.

The nonplus ultra in terms of comfort, operation and flexibility, of course, is the full air suspension with 4-channel system. A high performance compressor supplies compressed air separately to each air bellows. Load differences are registered and balanced out at each wheel individually. In this way, a constant ride height is guaranteed at all of the wheels. Moreover, it is possible to automatically level the vehicle when stationary (Auto Level) with the 4-channel system or - in addition to the three standard ride heights - activate the so-called Economy Drive that lowers the vehicles once a specific speed is reached by up to 20 millimetres.

Conclusion: Naturally, the decision is yours as to whether you opt for an air spring just on the rear axle or whether you prefer a high-end solution with a 4-channel air suspension system. All Goldschmitt systems are designed and manufactured according to the highest quality standards so that you can enjoy wonderful driving pleasure, maximum comfort and enormous safety with all systems.



The new intuitive AirDriveTouch® hand control unit impresses with innovative technology and the highest level of user-friendliness.



## AirDriveControl® – The control system of the future

The new AirDriveControl® levelling system, which is a fixed component on both the 2-channel and 4-channel system of Goldschmitt's full air suspension, ensures an even height of the vehicle above the road depending on the system.

Alternating wheel loads are registered by precision level sensors and automatically balanced out. No wonder, therefore, that full air springs from Goldschmitt are employed in ambulances and motorhomes in particular. Apart from three programmed ride heights, you have the Auto Level function, an additional sports mode and many other manual functions available on the 4-channel version. A detailed description of all of the functions can be found on pages 63 to 65.

| Vehicle            | Model year | Notes and characteristics  | Part no.:  |
|--------------------|------------|--|------------|
| VW T5<br>Panel van | from 2003  | 2-channel system for the rear axle (air spring system with 2 double folding bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Suitable for panel vans (van/crew cab/bus). Fits all wheelbases. Suitable for 4-Motion.   | on request |
|                    |            | 2-channel system for front axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. <b>Important: A modified version of the suspension strut may need to be installed depending on the standard running gear.</b>  | on request |
|                    |            | 4-channel system for the front and rear axle (rolling lobe air spring system with 2 bellows / 2 double folding bellows). Including 4-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit and Bilstein gas-filled shock absorbers. Suitable for panel vans (van/crew cab/bus). Fits all wheelbases. Suitable for 4-Motion. <b>Important: May only be fitted with some restrictions in the case of a sliding door on the left-hand side and a sliding rear bench seat.</b> | on request |
| VW T5<br>Dropsider | from 2003  | 2-channel system for the rear axle (air spring system with 2 double folding bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. Suitable for dropsiders (chassis/cab/box body). Fits all wheelbases. Suitable for 4-Motion. <b>Important: Installation on vehicles with crew cab not possible without restrictions.</b>   | on request |
|                    |            | 2-channel system for front axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. <b>Important: A modified version of the suspension strut may need to be installed depending on the standard running gear.</b>  | on request |
|                    |            | 4-channel system for the front and rear axle (rolling lobe air spring system with 2 bellows / 2 double folding bellows). Including 4-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit and Bilstein gas-filled shock absorbers. Suitable for dropsiders (chassis/cab/box body). Fits all wheelbases. Suitable for 4-Motion. <b>Important: Installation on vehicles with crew cab not possible without restrictions.</b>  | on request |



### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- A detailed description of the AirDriveControl® system can be found on pages 63 to 65
- The full air spring system for the rear axle of the VW T5 has been issued with a document of compliance by Volkswagen AG (page 73)



## OmniRoad – The complete package for the T5

The highest level of comfort, maximum flexibility and a unique appearance – the OmniRoad package from Goldschmitt combines all of the properties that VW T5 fans desire. In addition to stylish 17 inch wheels and chunky tyres, a 4-channel air suspension is the crowning glory of the VW T5's optimisation measures.

Ride height



### Important information

- Up to 75 mm more ground clearance
- Lowered vehicle height under two metre mark
- Increased driving comfort
- Steady and secure road handling
- Reduced tendency to roll
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out
- Optical upgrade for VW T5
- Complete package consisting of chassis suspension, special shock absorbers, aluminium rims including tyres



For fans of the VW T5, Goldschmitt offers the new OmniRoad package. Aside from the flexible air suspension including the new AirDriveControl® unit, the factory-fitted wheels are replaced by 235/65 R17 tyres in combination with aluminium rims of the GSH5 series.

The air spring AirDriveControl® unit facilitates individual regulation of the vehicle height. This enables a higher ground clearance of up to 75 millimetres, allowing the VW T5 to move across

difficult terrain while also providing the means to lower the VW bus below the two metre mark with lowered air springs. In this way, the VW T5 can be driven into most underground car parks without trouble. The fine sensors of the 4-channel control system make it possible to detect different wheel loads and automatically balance them out.

The OmniRoad package combines the comfort, the flexibility and the safety of an air spring with particular styling.



Raised level



Lowered level

| Vehicle            | Model year | Notes and characteristics  | Part no.:  |
|--------------------|------------|--|------------|
| VW T5<br>Panel van | from 2003  | <p><b>OmniRoad package</b> comprising 4-channel full air spring system for front and rear axle (page 72 to 75). Including automatic levelling device AirDriveControl® with AirDriveTouch® control unit, Bilstein gas-filled shock absorbers and aluminium rims GSH5 (page 92 to 95) with 235/65 R17 tyres. Suitable for panel vans (van/crew cab/bus). Fits all wheelbases. Suitable for 4-Motion.</p> <p><b>Important: May only be fitted with some restrictions in the case of a sliding door on the left-hand side and a sliding rear bench seat.</b></p> | on request |
| VW T5<br>Dropsider | from 2003  | <p><b>OmniRoad package</b> comprising 4-channel full air spring system for front and rear axle (page 72 to 75). Including automatic levelling device AirDriveControl® with AirDriveTouch® control unit, Bilstein gas-filled shock absorbers and aluminium rims GSH5 (page 92 to 95) with 235/65 R17 tyres. Suitable for panel vans (van/crew cab/bus). Fits all wheelbases. Suitable for 4-Motion.</p> <p><b>Important: Installation on vehicles with crew cab not possible without restrictions.</b></p>  | on request |



Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- A detailed description of the AirDriveControl® system can be found on pages 63 to 65
- The full air spring system for the rear axle of the VW T5 has been issued with a document of compliance by Volkswagen AG (page 73)



## Full air springs for the VW Crafter

Goldschmitt offers a 2-channel full air spring system for the rear axle of the VW Crafter. The standard AirDriveControl® for the air springs combines driving comfort and driving safety with the user-friendliness of a smartphone – thanks to the innovative AirDriveTouch®.



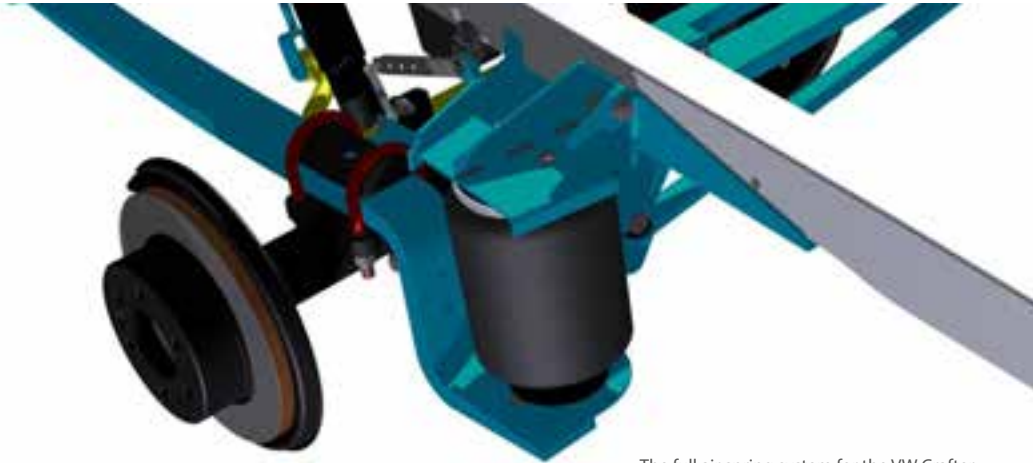
### Important information

#### ✓ Advantages:

- Increased driving comfort
- Safe and secure road handling
- reduced tendency to roll
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

#### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance



The full air spring system for the VW Crafter 30/35 was issued with a document of compliance by Volkswagen AG in 2011.



In motorhome circles, the VW Crafter is not usually chosen as a platform but their owners talk very highly of the high performing yet frugal engines. Above all, the new four cylinder TDI engines enable reduced consumption with low operating costs. This applies to the most powerful engine version: the familiar biturbo with 163 HP that lays a hefty 400 Newton metres of torque on the road.

With such sheer power, naturally an optimal chassis suspension is needed – clearly a case for Goldschmitt. It seems only natural on the VW Crafter to replace the standard leaf springs on the rear axle with a 2-channel full air spring system. Very conveniently, the rear can then be raised and lowered with it – a huge benefit

if the vehicle needs to be driven up the steep ramp of a ferry, for example. Unlike standard suspension, the system adapts precisely to the respective load with the new air spring AirDriveControl® unit (page 63 to 65). Regardless of whether a heavy or light load is imparted on the rear axle, the Crafter remains in a steady position thanks to the air spring bellows. To counteract body roll that occurs on most large vehicles, Goldschmitt also employs high quality shock absorbers. The ride height is monitored at each wheel by a height sensor.

Thanks to the Goldschmitt touch, the VW Crafter has a strong chassis with best road position. The intuitive touchscreen operation impresses with flexibility and comfort.

| Vehicle          | Model year | Notes and characteristics  | Part no.:  |
|------------------|------------|--|------------|
| VW Crafter 30/35 | from 2006  | 2-channel system for rear axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |
| VW Crafter 50    | from 2006  | 2-channel system for rear axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |

**Notes**

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- A detailed description of the AirDriveControl® system can be found on pages 63 to 65
- The full air spring system for the rear axle of the VW Crafter 30/35 has been issued with a document of compliance by Volkswagen AG (page 73)



## Full air springs for the Iveco Daily

With the world's first, meanwhile patented front axle full air spring system for the Iveco Daily, Goldschmitt spread excitement around the market. In conjunction with our full air spring system for the rear axle and the new air spring AirDriveControl® unit, you can enjoy a completely new driving experience.



### Important information

#### ✓ Advantages:

- Increased driving comfort
- Safe and secure road handling
- reduced tendency to roll
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

#### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance





Several years ago, Goldschmitt was able to present the world's first front axle full air spring for the Iveco Daily. Since then, Goldschmitt can look back on further revolutionary developments in the area of full air suspension for the favourite base vehicle among luxury mobile home manufacturers. In conjunction with the new air spring AirDriveControl® unit, an exceptionally high level of driving comfort, driving safety and user-friendliness is achieved. The 4-channel automatic levelling device with Auto Level function and Economy Drive is a milestone that will be very tough to beat in the coming years.

### A luxury vehicle with chassis suspension problems

Soft on the outside, raw on the inside. This is one way to describe the Iveco Daily. At the same, the rugged Italian is well capable of shining with inner qualities. With smooth running, torquey common rail power units, a modern automatic gearbox and a plethora of accessories, the South European with the English name provides an excellent basis for high quality motorhomes.

The antiquated, longitudinal torsion bar suspension of the front axle and the leaf springs of the rear axle, however, don't quite fit in with the overall picture. They are tailored more towards the pragmatic haulage contractor than the comfort-orientated camper. Leading motorhome magazines always drew attention to the rough response of the standard suspension, particular-

ly on an unladen vehicle. With the full air spring systems from Goldschmitt, you can afford your Iveco more comfort, dynamics and driving safety. The new intuitive AirDriveTouch® control unit facilitates convenient operation.

### Patented world premiere on the front axle

While the air spring system of the rear axle is more of a levelling device, the standard front axle torsion beam suspension is very difficult to modify owing to its special shape. The design of a complex cross member with angled front ends upon which two heavy duty air bags are mounted launched a new age of suspension systems. The original torsion beams then become extras with no supporting role. Initial trials revealed the enormous potential of the patented suspension concept, which is employed in many motorhomes throughout Europe.

In contrast to the revolutionary full air spring for the front axle, Goldschmitt relies on trusted technology for the design of the rear axle suspension. The standard leaf spring assemblies are replaced with offset semi-trailing arms on the end of which a large volume air bag is mounted. These rubber bellows take care of the entire suspension work and provide the relevant level of comfort on the rear axle.



The full air spring system facilitates comfortable damping of the front and rear axle. The mighty air bags balance out unevenness in the road and iron out hard impacts gently, directing the spring forces through the sturdy steel construction to the vehicle frame.



## The heart of the air spring: the control system

An air spring system would be nothing without a reliable control system. For complex levelling of a vehicles, high quality components are necessary that have to work harmoniously together in a precise manner. Regardless of compressor, level sensors or control unit – only the package as a whole can turn an air spring into a high quality levelling system.

For the Iveco Daily, Goldschmitt offers the new air spring AirDriveControl® unit as a 2-channel and 4-channel system. Both systems are controlled via the touch-sensitive AirDriveTouch® control unit.

The AirDriveControl® unit impresses with its unrivalled convenience and unrestricted flexibility. Decide yourself whether a 2-channel air spring for the rear axle is sufficient or whether you want the nonplus ultra for your motorhome, i.e. a comfortable air chassis suspension on the front and rear axle (4-channel system). On both systems, a powerful compressor supplies the air bellows with compressed air. The ride height is permanently monitored and regulated precisely by a dedicated height sensor at each wheel. The automatic levelling device ensures that the ride height remains constant and your motorhome stays perfectly on track – regardless of the load.



In addition to the ride height, two other programs can be activated by pressing the screen which can be very helpful in day-to-day operation. On one hand, your vehicle can be lowered to load the rear stowage compartment. On the other, the ground clearance can be increased so that the vehicle can easily deal with difficult roads or access ramps, which require an unnatural breakover angle, at walking pace while preventing any damage to the underbody or side skirts.

Aside from the freely selectable ride heights, you also have an additional Economy Mode at your disposal on the 4-channel air suspension that lowers the vehicle by up to 20 millimetres at high speeds to improve driving dynamics and reduce fuel consumption. This relieves the burden on the environment and the pressure on your budget.





Where the Economy Drive represents a genuine revolution in the recreational industry, the Auto Level function has been part of every 4-channel full air spring system from Goldschmitt for years. The Auto Level functions secures the position of the floorpan when the vehicle is parked. During lowering, each individual air bag is deflated in such a way that the vehicle is aligned horizontally provided the ground conditions and spring travel permit.

Should your motorhome already have a Goldschmitt full air spring on the rear axle, this system can be upgraded on selected motorhomes with elevated cab to a 4-channel air suspension system. The fine balance between the front and rear axle provides a driving response that you would find hard to beat in terms of comfort and safety. If you are interested, please speak to one of our customer service advisers.



The new AirDriveTouch® control unit features a clear display with a 3.5 inch screen and an intuitive user interface.

| Vehicle                   | Model year | Notes and characteristics  | Part no.:  |
|---------------------------|------------|--|------------|
| Iveco Daily IV/V (50C)    | 2006–2014  | <b>2-channel system for rear axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.           | on request |
| Iveco Daily IV/V (60/65C) | 2006–2014  | <b>2-channel system for rear axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.           | on request |
|                           |            | <b>2-channel system for front axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.          | on request |
|                           |            | <b>4-channel system for front and rear axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |
| Iveco Daily IV/V (70C)    | 2010–2014  | <b>2-channel system for rear axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.           | on request |
|                           |            | <b>2-channel system for front axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit.          | on request |
|                           |            | <b>4-channel system for front and rear axle.</b><br>Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |



Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- A detailed description of the AirDriveControl® system can be found on pages 63 to 65
- An existing 2-channel air spring system can be upgraded to a 4-channel system on request. Please call one of our customer service advisers on +49 (0) 62 83 / 22 29-100.
- Products for other models on request



# Full air springs for the Mercedes Sprinter

The comprehensive air spring program from Goldschmitt is rounded off with a full air spring system for the rear axle of the Mercedes Benz Sprinter NCV3 in the 3.5 t and 5.0 t category. The standard AirDriveControl® unit facilitates more driving comfort and greater safety.



## Important information

### ✓ Advantages:

- Increased driving comfort
- Safe and secure road handling
- reduced tendency to roll
- AirDriveControl® levelling device
- Uneven wheel loads are levelled out

### ✓ Particularly suitable for:

- Vehicles with poor comfort
- Motorhomes with long overhang
- Vehicles with long wheelbase
- Motorhomes with high payload
- Vehicles with low ground clearance



Full air springs have been performing their duty reliably for years in motorhomes, hard-worked transporters or even ambulances. The system fitted with the air spring AirDriveControl® unit is available for the 3 ton and 5 ton Sprinter from Mercedes-Benz.

Technically, the air spring system for the Mercedes Sprinter is orientated around the trusted full air spring of the Iveco Daily. The standard leaf spring and coil spring suspension of the rear axle is replaced by large volume air spring bellows. The significantly improved driving comfort and better road handling provide even more driving pleasure on the noblest of all base vehicles for motorhomes.

### AirDriveControl® – The innovative control system

At the heart of every air spring system is the control system. Goldschmitt supplies the new innovative AirDriveControl® unit for its full air spring systems. Two precision height sensors monitor the rear axle and transmit the signal where required for automatic adjustment. Load differences are balanced out with this technology quickly and effectively. The standard AirDriveTouch® hand control unit facilitates intuitive control of your air springs, the kind that you are otherwise only familiar with from a smartphone. The desired actions can be executed by softly touching the corresponding symbol. In addition, the steps are acknowledged with images and text messages.

The possibilities of an air spring system are almost endless. For example, the rear axle can be lowered onto the stop buffers when the vehicle is stationary. Loading of the rear stowage

compartment or motorbike carrier is made considerably easier in this way. Alternatively, the opposite can also be extremely advantageous: Access ramps that you might have experienced on many South European ferries, require a great deal of ground clearance so that the rear does not bottom out on the ground and the frame of the vehicle is not subjected to damage. The air bags of the rear axle can be inflated in situations such as this until the breakover angle is high enough to allow obstacles to be negotiated easily at walking pace. If a higher speed is reached, the system returns fully automatically back to the programmed ride height.

To guarantee an even higher level of comfort and safety, the full air spring system for the Mercedes Sprinter is equipped with an anti-roll bar and optimised shock absorbers.



| Vehicle                   | Model year | Notes and characteristics  | Part no.:  |
|---------------------------|------------|--|------------|
| Mercedes Sprinter 209-324 | from 2006  | 2-channel system for rear axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |
| Mercedes Sprinter 509-524 | from 2006  | 2-channel system for rear axle (rolling lobe air spring system with 2 bellows). Including 2-channel automatic levelling AirDriveControl® with AirDriveTouch® control unit. | on request |



#### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- A detailed description of the AirDriveControl® system can be found on pages 63 to 65
- Apart from the full air spring, including AirDriveControl® and AirDriveTouch® hand control unit, the system comprises an anti-roll bar and optimised shock absorbers for the rear axle



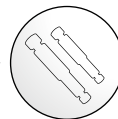
## Special shock absorbers for motorhomes and transporters



Good suspension comfort can only be achieved with perfectly matched shock absorbers. The special shock absorbers from Koni and Bilstein were developed in close co-operation with Goldschmitt and afford your vehicle with optimal comfort and more safety.

The shock absorbers from Bilstein are standard in formula 1 racing cars from Mercedes and many other teams. They are also employed in many fast cars of the German Touring Car Championship (DTM). Even international stars such as Niki Lauda and Alain Prost won formula 1 and championship races with Bilstein shock absorbers. If they have proved their worth so well under extreme racing conditions, then they have to be a good choice for recreational vehicles, too. Consequently, Goldschmitt teamed up with renowned shock absorber specialists Bilstein or Koni to find the best comfort and safety solutions for motorhomes and

transporters. The air suspension for the VW T5, for example, was optimised with Bilstein. The result of the joint project are three shock absorbers for VW's rear axle. In conjunction with a Goldschmitt full air suspension system, they are the best thing that could happen to a VW T5. Goldschmitt also works exclusively with other damper specialists to realise the best possible products. Speak to one of our shock absorber and suspension experts to find out which solutions are available for your vehicle. With many years of experience, we are guaranteed to have the optimal solution for your model as well.

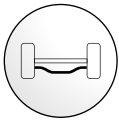


| Vehicle                      | Model year | Notes and characteristics  | Front axle   Item no. | Rear axle   Item no. |
|------------------------------|------------|--|-----------------------|----------------------|
| Vehicles with AL-KO chassis  |            | Original AL-KO shock absorbers for the rear axle. Please order by original spare part number. You will find this above the lower mounting lug. The shock absorbers are supplied individually.                          | –                     | FWS283.706           |
|                              |            |  | –                     | FWS282.251           |
| Fiat Ducato, model 230/244   | 1994–2006  | Koni oil-filled shock absorber set (soft version, adjustable). Suitable for passenger transport.   | –                     | 12.91136             |
| Fiat Ducato, model 250       | from 2006  | Koni oil-filled shock absorber set with soft setting (adjustable).   | –                     | 12.283706            |
| Ford Transit Tourneo         | 2006–2012  | Bilstein gas-filled shock absorber set. Specially developed for ambulances.  | –                     | 12.282251            |
| Ford Transit (single wheel)  | from 2000  | Koni oil-filled shock absorber set (adjustable) for single tyre vehicles with rear-wheel drive.  | –                     | 12.822513            |
| Ford Transit (twin tyres)    | from 2000  | Koni oil-filled shock absorber set (adjustable) for twin tyre vehicles with rear-wheel drive.  | –                     | 12.822512            |
| Iveco Daily IV/V (35C)       | 2006–2014  | Bilstein gas-filled shock absorber set. Reinforced version only in conjunction with Goldschmitt full air springs on the rear axle.   | –                     | 12.G1300-25          |
| Iveco Daily IV/V (50C)       | 2006–2014  | Bilstein gas-filled shock absorber set. Reinforced version only in conjunction with Goldschmitt full air springs on the rear axle.   | –                     | 12.G1300-24          |
| Iveco Daily IV/V (60/65/70C) | 2006–2014  | Sachs oil-filled shock absorber set. Reinforced version only in conjunction with Goldschmitt full air springs on the front axle. Prevents the body from rolling at the front axle on vehicles with long rear overhang. | 12.123895             | –                    |
| Iveco Daily IV/V (60/65/70C) | 2006–2014  | Bilstein gas-filled shock absorber set. Reinforced version only in conjunction with Goldschmitt full air springs on respective axle.   | 12.G1500-12           | 12.G1500-11          |
| Iveco Daily IV/V (60/65/70C) | 2006–2014  | Koni oil-filled shock absorber set (soft version, adjustable). Adapted for maximum comfort in conjunction with Goldschmitt full air springs on the front axle.   | 12.822532SP1          | –                    |
| Mercedes Sprinter 208–316    | 1995–2006  | Koni oil-filled shock absorber set (adjustable).   | 12.872604             | 12.822434            |
| Mercedes Sprinter 408–416    | 1995–2006  | Koni oil-filled shock absorber set (adjustable).   | 12.872638             | 12.822440            |
| Mercedes Sprinter 616        | 1995–2006  | Koni oil-filled shock absorber set (adjustable).   | 12.872638             | 12.841179SP1         |
| Renault Master II            | 1998–2010  | Koni oil-filled shock absorber set (adjustable). Only suitable for panel vans  | –                     | 12.822461            |
| VW T5                        | from 2003  | Bilstein gas-filled shock absorber set for vehicles with low overall actual weight (e.g. Caravelle models). The shock absorbers were adapted specifically to Goldschmitt full air springs on the rear axle.            | –                     | 12.5600-S            |
|                              |            | Bilstein gas-filled shock absorber set for vehicles with normal overall actual weight (e.g. California models). The shock absorbers were adapted specifically to Goldschmitt full air springs on the rear axle.        | –                     | 12.5600-M            |
|                              |            | Bilstein gas-filled shock absorber set for vehicles with high overall actual weight (e.g. models with bed at front). The shock absorbers were adapted specifically to Goldschmitt full air springs on the rear axle.   | –                     | 12.5600-H            |



## Notes

- Unless otherwise specified, the shock absorbers listed here are supplied as a pair (qty. 2)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification



## Steady on

Anti-roll bars reduce the body roll of a vehicle and provide greater driving safety and considerably lower sensitivity to side winds.

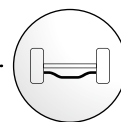
The anti-roll bar's role is to reduce body roll in corners. It comprises a shaped round bar of 10 to 60 millimetres in diameter. Essentially, the bar is U-shaped and joins both wheels together on one axle. The middle part of the anti-roll bar is secured laterally to the body with rubber bushes that allow rotational movement. The two lever arms are joined to the wheel suspension on the front or rear axle. If the spring on one wheel compresses on cornering, the spring rebound travel on the other side of the axle is reduced by the anti-roll bars. If one wheel on an axle compresses the suspension, the other wheel on the axle will compress the



suspension because of the anti-roll bar. If both wheels compress the suspension at the same time, for example when driving over a bump in the road, the anti-roll bar has no effect. The actual spring characteristic remains unchanged, therefore, when the vehicle is driven straight.

The vehicle's tendency to roll is automatically suppressed by an anti-roll bar. This vastly increases driving safety, particular during cornering, active or passive overtaking and when passing HGVs or buses travelling in the opposite direction.





## The advantages of anti-roll bars

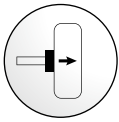
- Body roll during cornering is significantly reduced
- Anti-roll bars prevent the vehicle from rocking on poor roads
- Side wind sensitivity is significantly reduced
- Directional stability is improved
- Less steering effort is required
- Handling of vehicles with a high centre of gravity is improved

| Vehicle   | Model year | Notes and characteristics   | Part no.:      |
|---|------------|---|----------------|
| Fiat Ducato (model X250)                            | from 2006  | Anti-roll bars for rear axle (Ø 26 mm). Not suitable for all-wheel drive vehicles.  | FWT22.G2000-21 |
| Mercedes-Benz Sprinter (model T1N   208-316)        | 1995-2006  | Anti-roll bar-kit for front and rear axle. Not suitable for all-wheel drive vehicles.   | 11.600         |
|   |            | Anti-roll bars for rear axle (Ø 35 mm). Not suitable for all-wheel drive vehicles.  | 11.602         |
| Mercedes-Benz Sprinter (model T1N   208-416)        | 1995-2006  | Anti-roll bars for front axle (Ø 28 mm). Not suitable for all-wheel drive vehicles.   | 11.601         |
| Mercedes-Benz Sprinter (model NCV3   AL-KO chassis) | from 2006  | Anti-roll bars for rear axle (Ø 26 mm).   | 11.6506        |
| Mercedes-Benz Sprinter (model NCV3   209-324)       | 2006-2013  | Anti-roll bars for rear axle (Ø 24 mm). Suitable for standard chassis with all-wheel drive.                                       | 11.6504        |
|   |            | Anti-roll bars for rear axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                                       | 11.6502        |
|   |            | Anti-roll bars for front axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                                      | 11.6501        |
|   |            | Anti-roll bar kit for front and rear axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                          | 011.MB15319    |
| Mercedes-Benz Sprinter (model NCV3   509-524)       | 2006-2013  | Anti-roll bars for rear axle (Ø 38 mm). Suitable for standard chassis with all-wheel drive.                                       | 11.6510        |
|   |            | Anti-roll bars for front axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                                      | 11.6501        |
| Mercedes-Benz Sprinter (model NCV3   209-324)       | from 2013  | Anti-roll bars for rear axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                                       | 11.6502-1      |
|   |            | Anti-roll bars for front axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                                      | 11.6501-1      |
|   |            | Anti-roll bar kit for front and rear axle (Ø 28 mm). Suitable for standard chassis with all-wheel drive.                          | 011.MB15320    |
| Mercedes-Benz Sprinter (model NCV3   509-524)       | from 2013  | Anti-roll bar kit for front and rear axle (FA: Ø 28 mm, RA: Ø 38 mm). Only suitable for standard chassis without all-wheel drive. | 011.MB16320    |
| VW T5   | from 2003  | Anti-roll bar kit for front and rear axle (FA: Ø 26 mm, RA: Ø 30 mm).   | 11.800         |
|   |            | Anti-roll bars for front axle (Ø 26 mm). Adjustable anti-roll bars.   | 11.801         |
|   |            | Anti-roll bars for rear axle (Ø 30 mm).   | 11.802         |



### Notes

- Anti-roll bars for all-wheel drive vehicles on request
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for other vehicles or older models are available on request



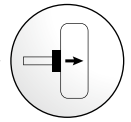
## Best tracking thanks to optimal spacing

Spacers are not just optical corrective aids. They also reduce side wind sensitivity, improve the true running properties and support the suspension of your mobile home.



Motorhomes are generally built on commercial vehicle chassis. For these vehicles, different priorities apply than for a motorhome. Often the extra-wide motorhome bodies make the motorhome appear narrow-tracked. A high centre of gravity has a negative effect on the true running properties and thereby also on the driving feeling. With spacers from Goldschmitt, the track width is adapted to the width of the body. The motorhome then provides the driver with substantially better true running stability, especially in the event of lane grooves and side winds. The comfort of

the suspension is also slightly better thanks to the extended lever arm. There is no disadvantage to the user when changing a wheel as it is mounted on the brake drum. All Goldschmitt spacers are manufactured from the highest quality materials and inspected against the European standard. The strength of the spacer itself is taken into consideration in the test as is the strength of all the components connected to the spacer. This ensures that there can be no premature wear on the wheel bearings or hub. Goldschmitt has a range of high-strength aluminium spacers for



most motorhomes. The advantages are plain to see: The aluminium plates are considerably lighter than their steel counterparts but are in no way less durable. The unsprung mass is also kept as low as possible, which in turn has a positive effect on driving comfort and driving safety. For those with an interest in

technology: The wheel load fluctuations and, to a lesser degree, body accelerations are less prominent the smaller the unsprung mass is in relation to the sprung mass of the vehicle. Another advantage of Goldschmitt aluminium spacers: Steel rusts, aluminium does not.

| Vehicle                                       | Model year | Notes and characteristics   | Part no.:   |
|---|------------|---|-------------|
| Fiat Ducato (model 230/244)                   | 1994–2006  | Track widening per axle: 60 mm. Suitable for 15 inch original tyres. Max. RA load: 1900 kg.   | 010.EC27060 |
|   |            | Track widening per axle: 60 mm. Suitable for 16 inch original tyres.  | 010.EC23060 |
| Fiat Ducato (model X250)                      | from 2006  | Track widening per axle: 60 mm. Suitable for 15 inch original tyres.  | 010.EC36060 |
|   |            | Track widening per axle: 60 mm. Suitable for 16 inch original tyres.  | 010.EC37060 |
| Ford Transit                                  | from 2006  | Track widening per axle: 60 mm. Not for twin tyre vehicles. Only in conjunction with steel rims.  | 010.FO43060 |
|   |            | Track widening per axle: 70 mm. Only suitable for the rear axle. Not for twin tyre vehicles.  | 010.FO43070 |
| Iveco Daily III (60/65C)                      | 2000–2006  | Track widening per axle: 74 mm. Only suitable for the front axle. If Goldschmitt rim GSM2 is used there is no need for the spacers.   | 010.IV24074 |
| Iveco Daily IV/V (50C)                        | 2006–2014  | Track widening per axle: 116 mm. Only suitable for the front axle. If Goldschmitt rim GSM2 is used there is no need for the spacers.  | 010.IV33116 |
| Iveco Daily IV/V (60/65C)                     | 2006–2014  | Track widening per axle: 74 mm. Only suitable for the front axle. If Goldschmitt rim GSM2 is used there is no need for the spacers.   | 010.IV34074 |
| Mercedes-Benz Sprinter (model T1N   208–316)  | 1995–2006  | Track widening per axle: 60 mm. Not for twin tyre vehicles. LK 5x130.   | 010.MB23060 |
|   |            | Track widening per axle: 100 mm. Not suitable for panel vans. Not for twin tyre vehicles. Can only be installed on the front axle of fully integrated vehicles if steel rims are fitted with an offset of 83. | 010.MB23100 |
| Mercedes-Benz Sprinter (model NCV3   209-324) | from 2006  | Track widening per axle: 60 mm. Not for twin tyre vehicles. LK 6x130.   | 010.MB15060 |
| Mercedes Vito, W639                           | from 2003  | Track widening per axle: 20 mm  | 010.MB30020 |
|   |            | Track widening per axle: 30 mm  | 010.MB30030 |
| Renault Master II                             | 1998–2010  | Track widening per axle: 60 mm. Not in conjunction with a rear axle uprated to 2240 kg.   | 010.OP11060 |
| Renault Master III                            | from 2010  | Track widening per axle: 60 mm.   | 010.OP12060 |
| VW Amarok                                     | from 2010  | Track widening per axle: 20 mm  | 010.VW81020 |
|   |            | Track widening per axle: 30 mm  | 010.VW81030 |
| VW T5   | from 2003  | Track widening per axle: 50 mm  | 010.VW50050 |



## Notes

- The scope of supply includes 2 spacers or shims with relevant installation material
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Products for other vehicles or older models are available on request



## Attractive legs for your motorhome

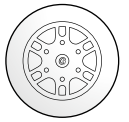
Trendy design, highest level of quality and high load bearing capacity – these are the properties that distinguish our aluminium rims. Whether for optical improvement or to increase the load bearing capacity – with alloy rims from Goldschmitt, you are in good hands.

Attractive legs are eye-catching, and this is no less true of the wheels on your motorhome: With high quality aluminium rims from Goldschmitt, you can uprate your vehicle not just in terms of safety but also optically and turn it into a real gem with minimal effort. However, aside from the optical improvement it is the technical refinements that make a difference – compared with passenger vehicle alloy rims, rims for motorhomes have to bear a much higher weight. Goldschmitt rims have mastered these tasks with flying colours for as long as we can remember. It comes as no surprise, therefore, that the high quality rims from Odenwald are also very popular among motorhomers as well as body manufacturers.

But there is far more to the Goldschmitt name. Niche markets and special solutions, in particular, mean that there is an endless

stream of new challenges for the engineers and developers from Goldschmitt. Where some see aluminium wheels as just a way to add style to the vehicle, others need a solution to keep custom bodies, for example, under the weight limit. In many cases, chassis with standard tyres cannot deliver the desired or even essential load bearing capacity. A classic case for Goldschmitt: We are able to offer a large range of products for (almost) every scenario. Regardless of trendy motorhome, transporter, offroader or pick-up chassis. Our aluminium rims are in the premier league when it comes to design and load rating.

As with all products from the Goldschmitt program, the quality of our aluminium rims is of utmost importance. Accordingly, all rims of the GSH and GSM series are produced according to our specifications to comply with the highest standards of quality.



The alloy rims from Goldschmitt impress with their trendy design and enormous load bearing capacity that makes them ideal for upgrading your motorhome and employment in heavy vehicles.

In the past, rims for heavy vehicles were not really given the treatment that they deserved. With the GSH and GSM series from Goldschmitt, good looks and load capacity are rolled into one. The elegant heavy duty rims feature many technical highlights: For example, the GSM2 can widen the track by up to 116 mm depending on the vehicle model. In other words: You no longer need spacers on the front wheels of your Iveco Daily. That represents a saving not just in money but also in weight. On the rear axle of the twin tyre Iveco Daily, solid aluminium wheel trims are used that match the rim design of the GSM2 and are attached to the original wheel by means of clever tapers. Stainless steel flexible hoses are used as valve extensions. The inflation pressure in both tyres can be checked conveniently at the valves by removing the cap on the alloy trim.

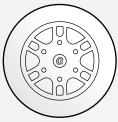
**An overview of our rim program can be found on pages 94 and 95.  
Rims for other vehicles or older vehicles are available on request.**



The GSM4 is available not only for the Fiat Ducato but also for the Renault Master ▲

▼ This HYMERCAR Cape Town based on the VW T5 was equipped with the Goldschmitt air suspension and also the elegant GSH5 rims from Goldschmitt.





# Overview of Goldschmitt rims

Goldschmitt was the pioneer when it came to introducing the first aluminium rims on the market for motorhomes. We have currently supplemented our product range and can offer you many high quality light alloy rims for all common vehicle models.



### **GSM1** Anthracite Polished Glossy

Rim size: 6.5 x 16 inch  
Load rating: 1250 kg / 1350 kg  
Wheel offset: ET65  
Pitch circle diameter: 5 x 118 mm / 5 x 130 mm



### **GSM4** Dark Chrome

Rim size: 6.0 x 15 inch / 6.5 x 16 inch  
Load rating: 1150 kg / 1350 kg  
Wheel offset: 66 mm / 68 mm  
Pitch circle diameter: 5 x 118 mm / 5 x 130 mm



### **GSM2** Anthracite Polished Glossy

Rim size: 6.0 x 16 inch  
Load rating: 1125 kg / 1250 kg  
Wheel offset: 50 mm / 78 mm  
Pitch circle diameter: 6 x 170 mm / 6 x 205 mm



### **GSH5** Black Polished Matt

Rim size: 8 x 17 inch  
Load rating: 1050 kg  
Wheel offset: 50 mm  
Pitch circle diameter: 5 x 120 mm



### **GSM2** Dark Chrome

Rim size: 6.0 x 16 inch  
Load rating: 1125 kg / 1250 kg  
Wheel offset: 50 mm / 78 mm  
Pitch circle diameter: 6 x 205 mm



### **GSM6** Anthracite Polished Glossy

Rim size: 6.5 x 16 inch  
Load rating: 1450 kg  
Wheel offset: 52 mm  
Pitch circle diameter: 5 x 130 mm



### **GSH3** Crystal Silver

Rim size: 7.5 x 17 inch / 8 x 18 inch  
Load rating: 1125 kg / 1200 kg  
Wheel offset: 33 mm / 53 mm  
Pitch circle diameter: 6 x 139.7 mm / 6 x 130 mm



### **GSH7** Anthracite Polished Glossy

Rim size: 7 x 16 inch  
Load rating: 1050 kg  
Wheel offset: 32 mm  
Pitch circle diameter: 5 x 120 mm



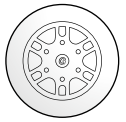
### **GSM4** Anthracite Polished Matt

Rim size: 6.0 x 15 inch / 6.5 x 16 inch  
Load rating: 1150 kg / 1350 kg  
Wheel offset: 66 mm / 68 mm  
Pitch circle diameter: 5 x 118 mm / 5 x 130 mm



### **GSH9** Crystal Silver

Rim size: 7 x 16 inch  
Load rating: 1050 kg  
Wheel offset: 30 mm  
Pitch circle diameter: 6 x 139.7 mm



| Vehicle  | Model year | Rim  | Size                       | Notes and characteristics   | Colour                     | Part no.:       |
|--|------------|--|----------------------------|---|----------------------------|-----------------|
| Fiat Ducato<br>(model 250   30–35<br>Light)      | from 2006  | GSH1   | 6.5 x 16"                  | LK 5 x 118 mm   Offset 65   Load rating: 1250 kg  | Anthracite Polished Glossy | 004.ECH16201APG |
|  |            | GSM4   | 6.0 x 15"                  | LK 5 x 118 mm   Offset 68   Load rating: 1150 kg  | Anthracite Polished Matt   | 004.EC45101AP   |
|  |            |  |                            |   | Dark Chrome                | 004.EC45101DC   |
|  |            |  | 6.5 x 16"                  | Set comprising 4 rims inc. 4 aluminium adapter plates (30 mm) for installing 16" rims with 5 x 130 mm pitch circle diameter on Light chassis.<br>LK 5 x 130 mm   Offset 68   Load rating: 1350 kg | Anthracite Polished Matt   | 004.EC46202AP2  |
|  |            | Dark Chrome                                      |                            |   | 004.EC46202DC2             |                 |
| Fiat Ducato<br>(model 250   35–40<br>Heavy)      | from 2006  | GSH1   | 6.5 x 16"                  | LK 5 x 130 mm   Offset 65   Load rating: 1350 kg  | Anthracite Polished Glossy | 004.ECH16202APG |
|  |            | GSM4   | 6.5 x 16"                  | LK 5 x 130 mm   Offset 68   Load rating: 1350 kg  | Anthracite Polished Matt   | 004.EC46202AP   |
|  |            |  |                            |   | Dark Chrome                | 004.EC46202DC   |
| GSM6   | 6.5 x 16"  | LK 5 x 130 mm   Offset 52   Load rating: 1450 kg | Anthracite Polished Glossy | 04.EC66216APG   |                            |                 |
| Isuzu D-Max                                      | from 2012  | GSH3   | 7.5 x 17"                  | LK 6 x 139,7 mm   Offset 33   Load rating: 1125 kg  | Crystal Silver             | 004.ISH37512KS  |
|  |            | GSH9   | 7.0 x 16"                  | LK 6 x 139,7 mm   Offset 30   Load rating: 1200 kg  | Crystal Silver             | 004.ISH96412KS  |
| Iveco Daily 35/50C                               | from 2006  | GSM2   | 6.0 x 16"                  | Set comprising 2 aluminium rims for front axle (track widening: 116 mm) and 2 aluminium trims for rear axle.<br>LK 6 x 170 mm   Offset 50   Load rating: 1125 kg                                  | Anthracite Polished Glossy | 004.IV26104APG  |
|  |            |  |                            |   | Dark Chrome                | 004.IV26104DC   |
| Iveco Daily 60/65C                               | from 2006  | GSM2   | 6.0 x 16"                  | Set comprising 2 aluminium rims for front axle (track widening: 92 mm) and 2 aluminium trims for rear axle.<br>LK 6 x 205 mm   Offset 78   Load rating: 1250 kg                                   | Anthracite Polished Glossy | 004.IV26105APG  |
|  |            |  |                            |   | Dark Chrome                | 004.IV26105DC   |
| Mercedes-Benz Sprinter<br>(model NCV3   209-324) | from 2006  | GSH3   | 8.0 x 18"                  | LK 6 x 130 mm   Offset 53   Load rating: 1200 kg  | Crystal Silver             | 004.MBH38613KS  |
| Renault Master II / III                          | from 1998  | GSM4   | 6.5 x 16"                  | LK 5 x 130 mm   Offset 66   Load rating: 1350 kg  | Anthracite Polished Matt   | 004.OP46203AP   |
| VW Amarok  | from 2010  | GSH5   | 8.0 x 17"                  | LK 5 x 120 mm   Offset 50   Load rating: 1050 kg  | Black Polished Matt        | 004.VWH57614BP  |
|  |            | GSH7   | 7.0 x 16"                  | LK 5 x 120 mm   Offset 32   Load rating: 1050 kg  | Anthracite Polished Glossy | 004.VWH76415AP  |
| VW T5  | from 2003  | GSH5   | 8.0 x 17"                  | LK 5 x 120 mm   Offset 50   Load rating: 1050 kg  | Black Polished Matt        | 004.VWH57614BP  |



## Notes

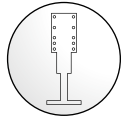
- These systems are suitable for uprating depending on the model (from page 10)
- Products for Fiat Ducato also fit Citroën Jumper and Peugeot Boxer models without modification
- Products for Mercedes-Benz Sprinter also fit VW LT and VW Crafter models without modification
- Products for Renault Master also fit Opel Movano and Nissan Interstar models without modification
- Polished rims are not suitable for winter operation
- Please observe the care details and warranty conditions included with the rims

## Important note regarding aluminium rim GSM2 for Iveco Daily:

The minimum shank length of the wheel studs on the front axle must be 60 mm. If required, therefore, M18 x 1.5 x 60 mm wheel clamping studs must be used (item no.: DINX46390477). On the front axle, the GSM2 exhibits integrated track widening, which is an absolute necessity if air springs are used. In the event of a puncture and subsequent use of a spare wheel, a spacer with a thickness of 58 mm (Iveco 35/50C) or 46 mm (Iveco 60/65C) must be fitted.







## So that nothing goes awry

Fluctuating floors, rolling pens and wine glasses off kilter – Situations that no doubt every motorhome driver is familiar with. With the innovative hydraulic corner steady systems of the Light and Pro series from Goldschmitt, these problems are a thing of the past.



Imagine the following: You drive your motorhome onto a wonderful and peaceful plot. The sloping position gives you an unbelievable view over beautiful countryside and you can watch the sun go down on the horizon.

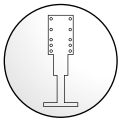
In your mobile home, you want to enjoy a glass of wine before you retire to bed all nice and relaxed. But just as you're enjoying the wine you notice that your motorhome is anything but level. Looking at the wine glass off kilter does not convey the feeling of holiday and relaxation in any way. If anything, you feel like a builder checking the level of a wall with a spirit level. Drinking up the contents of the glass may render the problem invisible to start with but it does nothing to resolve the matter.

Then, either before or just as you go to bed, the reality hits you. The lovely sloping position and beautiful view that you have as a result are all well and good – but when it comes to sleeping, you want to be a nice even level. And the person sleeping next to you will also appreciate it, too, unless you want to have them inadvertently rolling over you all the time. Without meticulous balancing, every camping fan will realise by now that living in a motorhome like this is hard work and not without difficulty.

Of course, we have to admit that the scenario described is slightly exaggerated – but in no way unrealistic. Likewise difficult to believe is that many people in motorhomes have a tendency to get seasick. The extremely unpleasant feeling when the body reacts to unusual movements is usually associated with journeys at sea. However, many people can suffer from nausea, headaches and dizziness from the rocking motion of a parked motorhome. In this case, not even variable ramps under the wheels can help.

Hydraulic jacks from Goldschmitt are the nonplus ultra when it comes to levelling your motorhome and securely supporting it. At the press of a button, hydraulic rams are ejected from the cylinder and bring the vehicle into a horizontal position. Aligning and stabilising your motorhome is child's play with hydraulic corner steady systems from Goldschmitt. It is even possible to change a wheel with our Pro series hydraulic systems without jacking up the vehicle in the conventional sense.

**Depending on the area of use and desired scope of functions, Goldschmitt offers two hydraulic corner steady systems: The entry-level models of the Light series and the Pro series, which awaits with the most advanced technology, unique safety concept and innovative means of operation.**



## The trusted entry-level model

Hydraulic jacks from Goldschmitt have proven their worth with many years of service in motorhomes and special vehicles. One of the most popular systems, a 4-support system with remote control, has a new design.



Essentially, hydraulic jacks have one purpose – and that is to keep parked motorhomes and special vehicles steady and as horizontal as possible. Our entry-level model of the Light series achieves exactly this with merit.

With the wireless control unit, you can level your vehicle from inside and outside. The range of the standard remote control unit is almost 20 metres. By pressing the respective control buttons, you can level your vehicle until the desired height is reached. To retract all of the jacks, one press of the button is all that is required.

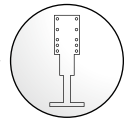
The corner steady systems of the Light series have many quality features that have made a name for our company among many motorhomers and professional users throughout Europe. As standard, Goldschmitt offers its hydraulic corner steady systems as vertical, folding or telescopic jacks.

The universal means of deployment, the high manufacturing quality and wide-ranging standard equipment make this corner steady system one of the top-selling of its kind in Europe.

### The advantages of the Light series

- Load capacity per hydraulic corner steady: up to 4 tons
- Simple operation by means of remote control
- Available in many different versions and lengths with many combination options
- Jacks can be hydraulically actuated individually or in pairs (protects the body)
- Hand pump fitted as standard
- Manual operation of the valves possible
- European quality product

*light*



## The right steady for every vehicle

Most car parts like springs, shock absorbers or spacers and shims are manufactured for a specific vehicle and can be ordered for the desired vehicle model in a targeted manner. It's not quite as easy when purchasing a corner steady system.

Depending on the vehicle and body manufacturer, the amount of space under the vehicle that is needed to install the hydraulic jacks varies. To cope with the huge range of vehicles, Goldschmitt offers three different versions of its jacks in both the Light as well as the Pro series: Tele-Star, Swing-Star and Vertical-Star. Determining which system is the right one for you usually depends on the amount of space available under your motorhome.

For smaller vehicles with minimal space availability, the folding Swing-Star or the telescopic Tele-Star jacks are a good choice. Both systems require just a low installation height and are thereby ideal for use in compact motorhomes. While the Tele-Star impresses with its compact design and large lift, the Swing-Star has a patented folding system. At rest, the Swing-Star is stowed in an almost horizontal position on the vehicle frame. When deployed, the jacks fold out downwards.

Large vehicles with large ground clearance, on the other hand, are usually equipped with the mighty Vertical-Star version. This system has a load capacity of up to four tons and is used, for example, in the Iveco Daily.



Jacks of the Light series are available in three different versions: Vertical-Star, Tele-Star and Swing-Star (from top to bottom).

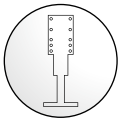
With the standard remote control, you can level and stabilise your motorhome simply and conveniently.

| Designation         | Notes and characteristics  | Part no.:   |
|---------------------|--|-------------|
| Vertical-Star Light | 4 jacks including remote control, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.91VxVxF |
| Swing-Star Light    | 4 jacks including remote control, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.91SxSxF |
| Tele-Star Light     | 4 jacks including remote control, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.91T1T1F |



### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- Assembly brackets not included in the scope of supply
- Our hydraulic corner steady systems can be configured for vehicles up to 40 tons



# The professional system with HRP technology

Lighter, safer and more comfortable: Three priorities that were given the highest priority at Goldschmitt during development of this hydraulic corner steady system. The hydraulic Pro system is distinguished by the most advanced technology, innovative means of operation and the unique HRP technology.



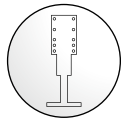
Fluctuating floors, rolling pens and wine glasses off kilter – these familiar parking space situations can be successfully avoided by the use of hydraulic jacks.

But just as it is when buying a car, the important details and technical refinements are the things that matter even with hydraulic systems. The topic of safety cannot be emphasised enough with systems as complex as these. A motorhome can suffer significant damage if defective hydraulic systems are used and, more importantly, cause significant damage themselves. For example, it is not permitted to use conventional corner steady systems to change a wheel or fit snow chains. The risk of pressure loss from damaged hydraulic hoses is too great and above all life threatening.

The Pro corner steady system from Goldschmitt is the only system in the recreational industry equipped with unique HRP technology. HRP technology makes the Pro series from Goldschmitt the safest corner steady system on the leisure market.

## The advantages of the Pro series

- Load capacity per hydraulic corner steady: up to 10 tons
- Automatic levelling at the press of a button
- Safest corner steady system on the leisure market
- Suitable and certified for changing wheels
- System can be used as an immobiliser
- Movable base plates (not on Swing-Star)
- EMC-tested (electromagnetic compatibility)
- Weight reduction thanks to hollow rams
- Can be diagnosed using CAN bus technology
- Thermal switch protects against overheating
- Shear-protected line routing
- Double sealed ram guide
- Valve technology with highest level of protection (IP69K)
- Available in a variety of versions and lengths
- Three innovative means of operation (page 104 / 105)
- Made in Germany



## What is the so-called HRP technology?

The "red nose" is the trademark of the Pro corner steady system from Goldschmitt. Behind it is a unique achievement: HRP technology developed by Goldschmitt.

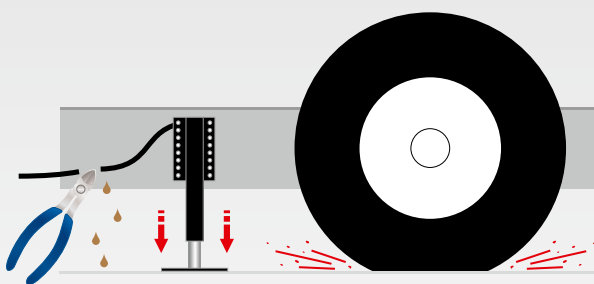
HRP technology is the Pro series from Goldschmitt, the safest corner steady system on the leisure market and, with that, unique. It is the only system on the market that features an integrated safety valve (red protective cap) directly on the jack head. HRP technology prevents the hydraulic jacks from sinking when the vehicle is supported should an oil leak occur, for example, through a technical fault. Even if one of the hoses were to be cut through accidentally, there would be no discernible side-effect.

For this reason and in contrast to conventional systems, the Pro series jacks can be used to change a wheel or fit snow chains. Pleasant side-effect: The vehicle jack can be left at home. This not only saves space in the motorhome but also weight for additional luggage.



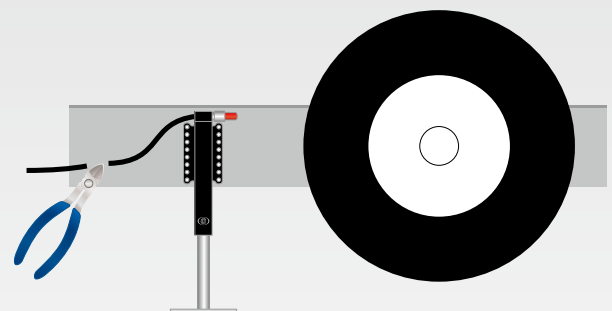
Behind the red protective cap is a safety valve that prevents the jacks from sinking should the hydraulic lines become damaged.

The Pro series from Goldschmitt is the only corner steady system suitable for changing a wheel!



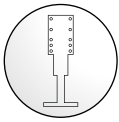
### Without HRP technology

On systems without HRP technology, the jacks can no longer bear the weight of the vehicle if a hose is damaged. The hydraulic rams fail – the vehicle drops to the ground. On systems such as this, lifting the vehicle free off the ground is to be avoided as a matter of priority. Even the manufacturers of hydraulic systems such as these are obliged to point out these restrictions.



### With HRP technology

Corner steady systems with HRP technology from Goldschmitt are immune to burst or leaking hoses. An integrated safety valve prevents accidental lowering of the vehicle under load. This safety technology allows the vehicle to be raised freely off the ground and the corner steady system can also be used to change a wheel or fit snow chains.



# Which type of corner steady is right for me?

As with the Light version, Goldschmitt offers three different corner steady versions in the Pro series: Vertical-Star Pro, Swing-Star Pro and Tele-Star Pro.



Vertical steady, folding steady, telescopic steady? It usually depends on your vehicle when it comes to choosing the right corner steady system for you. Every motorhome and every transporter is constructed differently and therefore has different amounts of space available and framework conditions that are fundamental for the installation of a hydraulic corner steady system.

For lightweight vehicles with minimal space availability and low installation height, the folding Swing-Star or the compact Tele-Star jacks are a good choice. For large vehicles, on the other hand, the Vertical-Star version is more suitable.

The large selection makes it possible to generate a match for every vehicle. Regardless of whether a panel van or a fully integrated motorhome.

## Vertical-Star Pro: The powerhouse

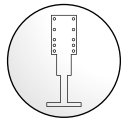
On large motorhomes or industrial vehicles, for example with a base chassis from Iveco, MAN or Mercedes, the mighty vertical Star jacks are often used which are offered in different lengths according to requirement. The moving plates adapt optimally to the ground surface – even if it isn't even flat. In the standard version, plates are supplied with a diameter of 230 millimetres; as an option, smaller versions with 160 millimetres in diameter are available.

## Swing-Star Pro: The patented original

The Swing-Star Pro largely features the same properties as the Vertical-Star Pro system. Apart from the permanently fixed support feet, there is an elementary difference in the way the vertical jacks operate: Thanks to a patented folding mechanism, the hydraulic rams lie in an almost horizontal position on the vehicle frame when at rest. When deployed, the jacks fold out downwards. Owing to this special feature, the system is suited for all vehicles with a low ground clearance and restricted space.

## Tele-Star Pro: Especially variable

The Tele-Star Pro can do more than you might imagine at first glance. The compact design makes it ideal for use, above all, in vehicles with low ground clearance. The frame of sales vehicles and show trucks are no higher than absolutely necessary. At the same time, however, there are particularly high demands on precise levelling. On the other hand, it is the compact panel vans that have little space underneath for the installation of jacks. Where other systems have to throw in the cap for lack of space, the compact Tele-Star Pro from Goldschmitt is employed. It enjoys the advantages of a vertical steady with low installation height. The plates of the Tele-Star Pro are also moveable and exchangeable.



## Professional system with the highest level of quality

Compared with our Light corner steady series, it was possible to reduce the weight of the hydraulic jack pump unit by a whole 30 percent. Goldschmitt now supplies one of the lightest fully hydraulic systems there is. This is enabled, for example, by hollow rams. This measure not only saves a great deal of weight but also serves to supply oil through the cavity. The oil connections can be found in the head area of every corner steady thanks to this technology, which means that the line routing is guaranteed not to shear.

With a double sealed piston guide on the lift cylinder there is no chance of oil escaping. A pressure sensor monitors the oil pressure in the hydraulic system and prevents the hydraulic jacks from dropping down while the vehicle is in motion. To further increase system safety, a standard thermal switch helps to protect the system against overheating.

In this way, you receive a product that provides you with the best support in all positions. The Pro series from Goldschmitt combines weight saving, strength and the highest level of safety in a unique way.

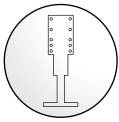


| Designation        | Control unit | Notes and characteristics  | Part no.:   |
|--------------------|--------------|--|-------------|
| Vertical-Star Pro  | Basic        | 4 jacks incl. basic controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables.   | 009.21VxVxB |
|                    | Comfort      | 4 jacks incl. comfort controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.21VxVxC |
| Swing-Star Pro     | Basic        | 4 jacks incl. basic controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables.   | 009.21SxSxB |
|                    | Comfort      | 4 jacks incl. comfort controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.21SxSxC |
| Tele-Star Pro      | Basic        | 4 jacks incl. basic controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables.   | 009.21T1T1B |
|                    | Comfort      | 4 jacks incl. comfort controls, hydraulic assembly, control element, pre-manufactured hoses and connecting cables. | 009.21T1T1C |
| Upgrade pack iLift |              | Upgrade pack for controlling the system via an iPhone, iPad or iPod Touch.   | 09.21UG.B-I |



### Notes

- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- Assembly brackets not included in the scope of supply
- The wired control unit (basic / comfort) remains part of the corner steady system with the iLift upgrade
- iPhone, iPad or iPod Touch are not included in the scope of delivery



## Professional operation

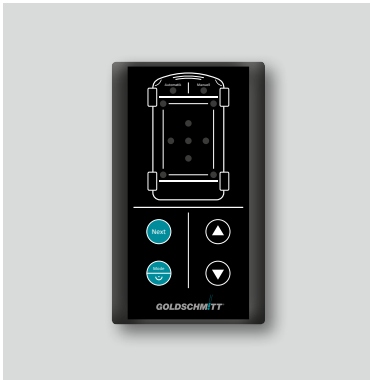
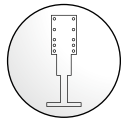
Our corner steady systems of the Pro series are distinguished not just by the most advanced technology but also by their innovative means of operation. Users of these hydraulic systems have three options available: Basic, comfort and the revolutionary iLift controls.

How much operating comfort would you like with the controls of your corner steady system? Goldschmitt makes the choice hard here, too. We offer not only two versions of the wired controls but also the hi-tech iLift version for the iPhone, iPad or iPod Touch.

No frills, clear and simple – these are the basic controls. Operation is straight-forward: one press of the button and the jacks move to the desired position. The fact that there are many motorhomers, too, who opt for the wired comfort controls is due to there being a range of different adjustment options ex-factory. For example, the grey-water tank can be emptied optimally in this way. Changing a wheel with the corner steady system and the comfort controls is also really easy. The nonplus ultra, however, is the iPhone-based control system. Using an app, the corner steady system can be operated conveniently and intuitively.







The ease at which highly complex hydraulic systems can be operated is demonstrated by the basic controls of the Pro corner steady series. The simple design of the control unit allows the user to operate the corner steady system quickly and without trouble. The basic hand control unit provides all of the necessary basic function to do this. Apart from the automatic mode, which facilitate levelling at the press of a button, the user can actuate manually selected jacks in pairs. Moreover, the control unit always shows the latest stage of operation and possible imbalance of the vehicle.

Basic



The name alone already gives an idea of the options provided by the comfort control unit in a CAN bus-controlled system. In contrast to the basic version, the comfort unit has a large colour display. A simple menu guide allows fast access to all available functions. In addition to the familiar automatic and manual modes, previously set levels can be stored and actuated as required. A PIN can also be used to protect the system from unauthorised access. This function also doubles as an immobiliser.

Comfort



With the iLift feature, you can control your Goldschmitt corner steady system with an iPhone, iPad or iPod Touch. This is made possible by a corresponding app. The intuitive menu guide leaves nothing to be desired. Irrespective of automatic mode, manual mode or the activation of a whole host of previously stored positions – just a few button actuations are suffice to perform the desired action. All actions are shown clearly to the user on the large Apple display. Moreover, the iLift feature has comprehensive safety functions such as a PIN-protected immobiliser.

iLift

| Designation        | Notes and characteristics  | Part no.:   |
|--------------------|--|-------------|
| Upgrade pack iLift | Upgrade pack for controlling the system via an iPhone, iPad or iPod Touch. | 09.21UG.B-I |

Notes

- The wired control unit (basic / comfort) remains part of the corner steady system with the iLift upgrade
- These systems can only be mounted by Goldschmitt or Goldschmitt-certified premium partners
- iPhone, iPad or iPod Touch are not included in the scope of delivery

|                                     |           |                                    |         |                                 |         |
|-------------------------------------|-----------|------------------------------------|---------|---------------------------------|---------|
| <b>A</b>                            |           | <b>D</b>                           |         | <b>M</b>                        |         |
| AirCell.....                        | 18, 50–51 | Dampers.....                       | 86–87   | MAD springs.....                | 29      |
| AirDriveControl®.....               | 63–65     | Double pressure gauge.....         | 33, 58  |                                 |         |
| AirDriveTouch®.....                 | 65        | <b>E</b>                           |         | <b>N</b>                        |         |
| AL-KO shock absorbers.....          | 86–87     | Elevating kits.....                | 20–21   | Non-return valves.....          | 58      |
| AL-KO auxiliary air springs.....    | 38–39     | Exchange coil springs.....         | 22–25   |                                 |         |
| AL-KO full air springs.....         | 70–71     | <b>F</b>                           |         | <b>O</b>                        |         |
| Aluminium rims.....                 | 92–95     | Folding jacks.....                 | 98–103  | Offroad springs.....            | 54–57   |
| Anti-rattle rubbers.....            | 19        | - Light.....                       | 98–99   | Oil-filled shock absorbers..... | 86–87   |
| Alloy rims.....                     | 92–95     | - Pro.....                         | 100–103 | OmniRoad (VW T5).....           | 76–77   |
| Air springs.....                    | 30–85     | Full air spring systems.....       | 60–85   |                                 |         |
| - Spare parts and accessories . . . | 58–59     | - Spare parts and accessories..... | 58–59   | <b>P</b>                        |         |
| - Control system.....               | 63–65     | - Control system.....              | 63–65   | Passenger vehicle springs.....  | 29      |
| - Full air springs.....             | 60–85     | Front axle coil springs.....       | 22–25   | Pro series (jacks).....         | 100–103 |
| - Auxiliary air springs.....        | 30–57     | <b>G</b>                           |         | Pressure switches.....          | 58      |
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