



# SUSPENSION SYSTEMS

making everyday smoother



*airsuspension*



- Increased comfort • Better driveability • More safety



## FIAT DUCATO X250



## Safe and comfortable ride

Everything is under control with the suspension systems of VB-Airsuspension

The Fiat Ducato X250 can be used for many applications.. Like where humans vehicles, wheelchair accessible vehicles, emergency vehicles, service vehicles, car transport and motorhomes. Our products are used for a lot of applications, at this page you'll find an overview of the most common applications for air suspension:

For the Fiat Ducato X250 are the following products available;

- VB-FullAir 2C
- VB-FullAir 4C
- VB-SemiAir
- VB-CoilSpring



## FullAir Suspension ( VB-FullAir 2C / 4C )

VB-FullAir is a fully automatic (adjustable) solution for suspension problems. The existing leaf- or coil-spring is replaced by a complete air-suspension system (including bellows, shock absorbers, compressor and an electronic control unit). The air-suspension system filters out road-surface imperfections and, therefore, improves the ride comfort.

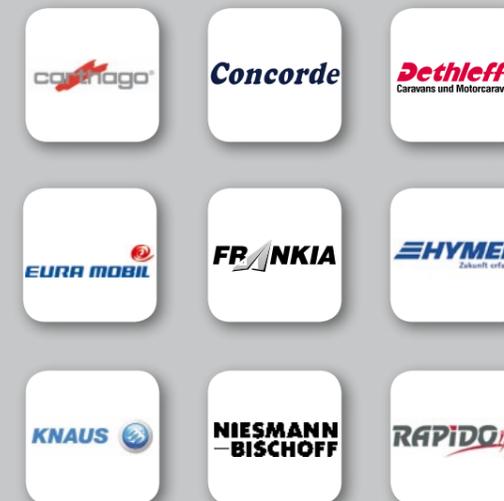
While driving, the vehicle will constantly remain at the ride height set by VB-Airsuspension (during installation). Both the road holding and the stability of the vehicle will be improved, which in turn will enhance safety. When the vehicle stands still, it is possible to raise and lower the step height / load platform to ease loading and unloading.



- Leaning
- Sagging
- Reduced comfort
- Poor handling
- Less safety
- Difficult loading and unloading
- Load vulnerable to damage



- VB-FullAir 2C is an FullAir suspension on the Frontaxle **or** Rearaxle
- VB-FullAir 4C is an FullAir suspension on the Frontaxle **and** Rearaxle



\* and other motorhome manufactures

## Your benefits:

- ✓ Constant driving level
- ✓ Avoidance of “leaning” or “sagging”
- ✓ Reduced body roll
- ✓ Increased comfort
- ✓ Better driveability
- ✓ Increased stability
- ✓ Increased safety
- ✓ Easier loading and unloading
- ✓ Less damage to sensitive loads

## Special features of the VB-FullAir System

### AutoLevel

This option includes a digital water-level which can set your motorhome level (as far as the spring travel permits) by simply pressing the AutoLevel button.

### Ferry ramp

The ferry ramp function can automatically raise the rear axle and lower the front axle of the Fiat Ducato X250. This increases the bank angle from the stern, meaning the entrance / exit to the ferry can be taken easily.

### Water drain Function

This option allows you to lower the side of the Fiat Ducato X250 where the dirty water tanks are located. The slope facilitates the rapid draining of sewage and dirty water tanks.

### Garage / rear-locker access

The garage access feature can automatically raise the front axle and lower the rear axle. The rear of the vehicle lowers to the maximum and the garage / rear-locker can be loaded easily.

### Offroad

By choosing the Off-Road mode the ride height of the vehicle can be automatically increased limited by a maximum speed.

### Sport\*

The sport level not only improves the aesthetics, but also increases the stability of the vehicle. The driving dynamics and safety will also increase when you really have to go faster.

\* only for van

### Connect to other components

The software within the VB-Airsuspension systems has been developed to cooperate fully with other components like ramps, straps etc. but also with the hydraulic jacks of E&P Hydraulics and Linnepe.



## VB-CoilSpring

Mounting reinforced coil springs is a non-adjustable solution for suspension problems. An additional spring leaf is mounted to the existing coil or leaf spring(s). Reinforced springs will usually ensure that the vehicle returns to its original ride height (if not higher), thus increasing the suspension travel and improving stability.

### Benefits VB-CoilSpring

- Improved suspension
- Higher ride height
- Increase lateral stability
- Longer wheel travel > improved comfort
- Reduced crosswind sensitivity reduced body-roll
- Improved road handling and stability
- Sagging of the rear axle is eliminated

## VB-SemiAir

On a vehicle with leaf springs, an air bellow is fitted between chassis and rear axle. This bellow supports the existing leaf spring the VB-SemiAir is supplied as a dual chamber system the bellows are not in connection with each other. Making use of a dual chamber system allows left and right to be separated, enabling the vehicle to be levelled, even when it is loaded unevenly. The VB-SemiAir has, therefore, two inflation valves.

With this system, one can control the ride height, within limits, by varying the pressure in the bellows with the help of the inflation valve.

This basic system is the starting-point for the adaptation and improvement of the suspension on your vehicle.



VB-Airsuspension supplies the majority of the kits with a brake regulator as standard. Most existing vehicles need this part for safe and reliable road behaviour and optimal braking performance.

SemiAir suspension gives the following benefits:

- Higher ride height and increased suspension travel
- Better stability
- Body-roll will decrease when cornering (dual chamber system)
- Spring force can be varied
- Relatively cheap
- Body and load will be protected against damage
- Heavy loads are no longer visible from the outside (less sagging)
- Shock absorbers will work less and, therefore, last longer

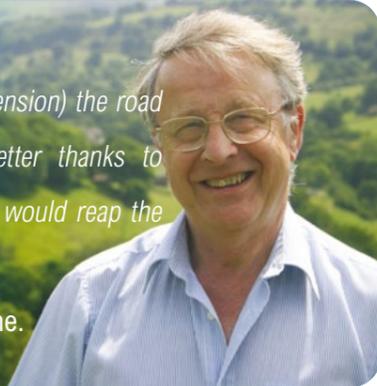




(Client reference)

“... last year, during our journey over the Brenner down into Italy (with standard steel suspension) the road surfaces made the journey very unpleasant. The same trip now is much much better thanks to VB-Airsuspension. John Wickersham sowed the seed and you were right when you said I would reap the benefits. How right you were. It's a super system, thank you from the bottom of my fillings.”

Frankia owner Mr. Duncan Lodge, after having VB-FullAir 2C fitted to his Motorhome.



| Modification  | Increasing ride height | Levelling off-centre loads | Reducing vehicle roll | Improving ride comfort | Improving vehicle handling |
|---|------------------------|----------------------------|-----------------------|------------------------|----------------------------|
| <b>VB-FullAir</b><br>Full air-suspension<br>                  | ✓<br>1                 | ✓<br>2                     | ✓                     | ✓                      | ✓                          |
| <b>VB-SemiAir</b><br>Semi air-suspension<br>                 | ✓                      | ✓<br>2                     | ✓<br>5                | ✓<br>5                 | -                          |
| <b>VB-CoilSpring</b><br>Reinforced coil or leaf springs<br> | ✓                      | -                          | ✓<br>4 & 5            | ✓<br>5                 | -                          |
| <b>VB-SpecialParts</b><br>Heavy duty stabilisers<br>        | -                      | ✓<br>3                     | ✓                     | -                      | ✓                          |
| <b>VB-SpecialParts</b><br>Heavy duty shock absorbers<br>    | -                      | -                          | ✓<br>3, 5 & 6         | ✓<br>6                 | ✓                          |

✓ This product is best suited for this problem.

✓ This product is less suitable for this problem.

1. Possibility to lower the rear of the vehicle.
2. Only with dual control (to a limited degree).
3. To a lesser degree.

4. At the expense of ride comfort.
5. Depends on the starting point.
6. Damps the oscillating movement.

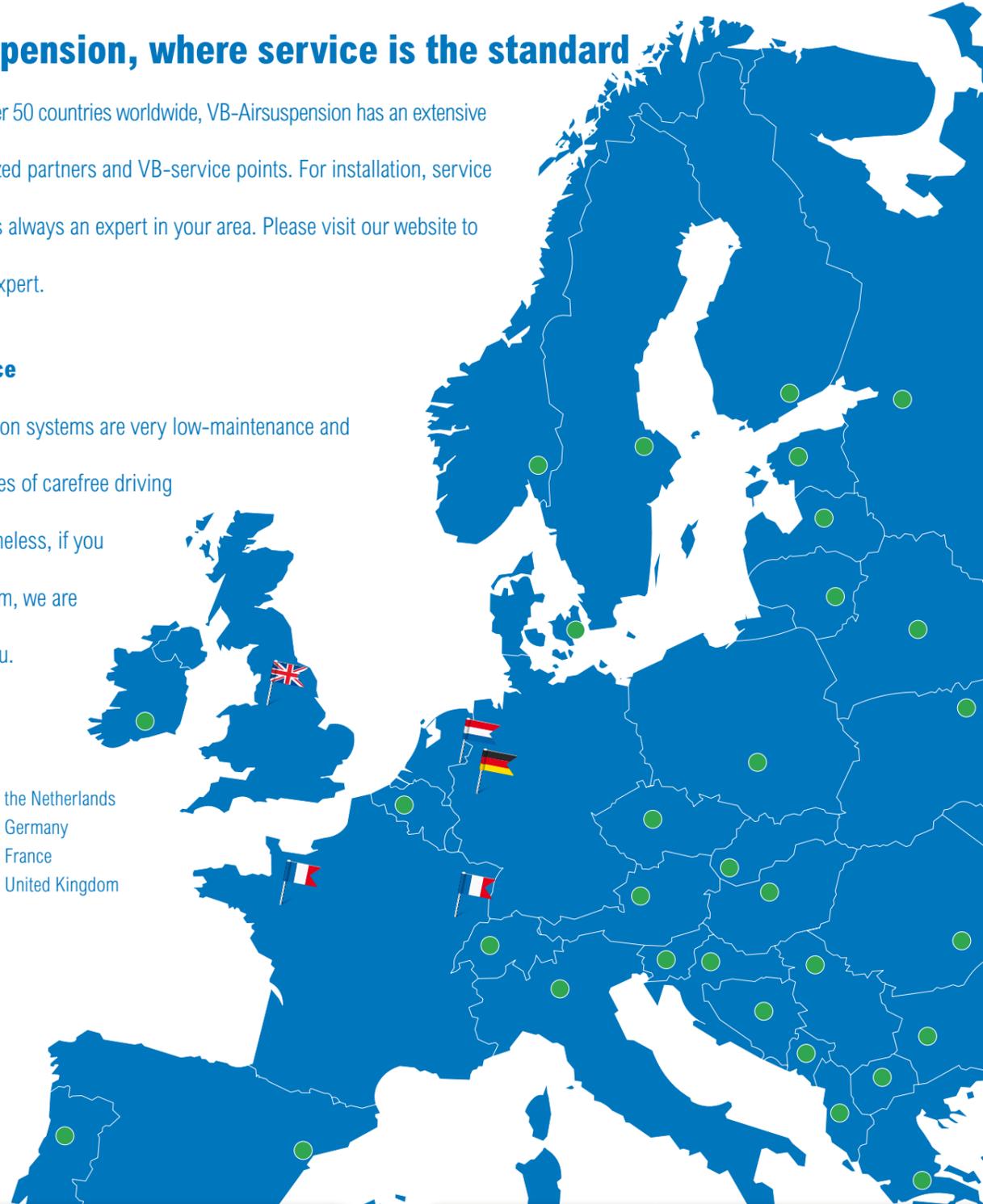
## VB-Airsuspension, where service is the standard

With partners in over 50 countries worldwide, VB-Airsuspension has an extensive network of authorized partners and VB-service points. For installation, service and advice, there is always an expert in your area. Please visit our website to find your nearest expert.

### Low maintenance

All VB-Airsuspension systems are very low-maintenance and offer you many miles of carefree driving enjoyment. Nevertheless, if you encounter a problem, we are always there for you.

-  VB-Airsuspension the Netherlands
-  VB-Airsuspension Germany
-  VB-Airsuspension France
-  VB-Airsuspension United Kingdom
-  VB-Partner

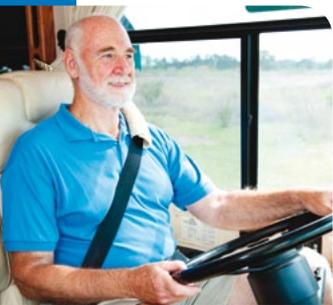


VB-Airsuspension B.V., the Netherlands





VB-Airsuspension is producing, as one of the few European manufacturers, a very broad range of different (air)-suspension systems. From reinforced coil springs, semi-air-suspension systems, up to complete full air-suspension systems, we provide solutions for customers with different vehicle types, like ambulances, minibuses, car transporters, motorhomes, etc. Now you can see why more and more commercial vehicle body manufacturers specify VB-Airsuspension on their vehicles.



Dealer:



[www.vbairsuspension.com](http://www.vbairsuspension.com)