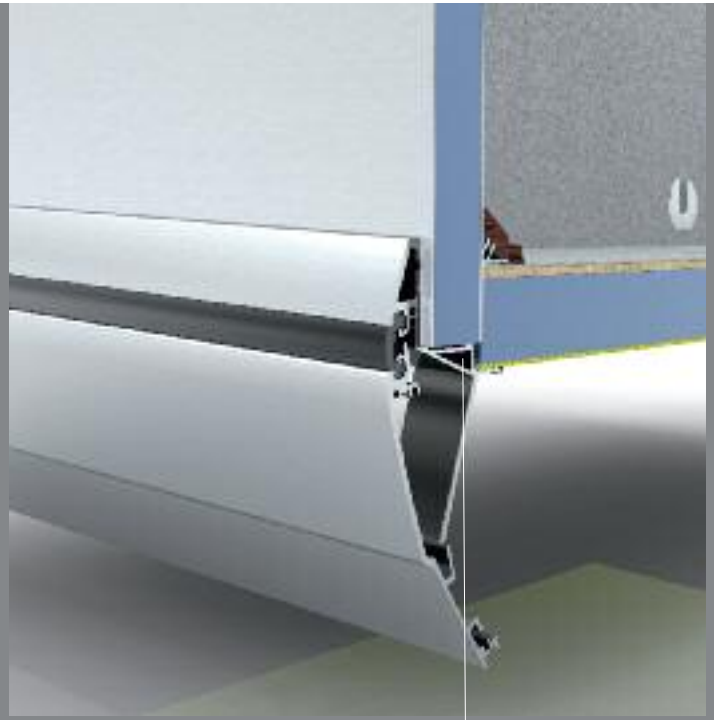


Curved roof for rigidity of bodywork



Connection without use of thermal bridge

Highly stable aluminium sheath for wall and floor construction

## Carthago upper range bodywork

### THE CARTHAGO QUALITY PHILOSOPHY

*Why Carthago motor homes set the standard – it's all because of the typical qualities that you can find in every Carthago motor home!*

The bodywork that is typical for Carthago offers high longevity, stability and safety and this is what sets it aside from many competitors. The many years of experience in the premium class form the basis of this quality. The cabin components are all manufactured by us using state-of-the-art machines

The Carthago motor home's bodywork is like a like a single unit. As a result, the solid double floor is the decisive factor for load-bearing and stability. Highly stable extruded aluminium sheath enable the side walls to be bonded across the whole surface, totally without screws! This ensures high stability, longevity and an absolutely leak-free surface.

The main cabin itself, thanks to its structure with a double aluminium skin on both sides and its insulation with RTM hard foam boards, is a highly stable 'box' that is self supporting and torsion resistant. The bodywork components are completely timber-free. This bodywork construction doesn't only give Carthago outstanding torsion resistance, it also provides a high degree of basic safety, for example, in the case of an accident.

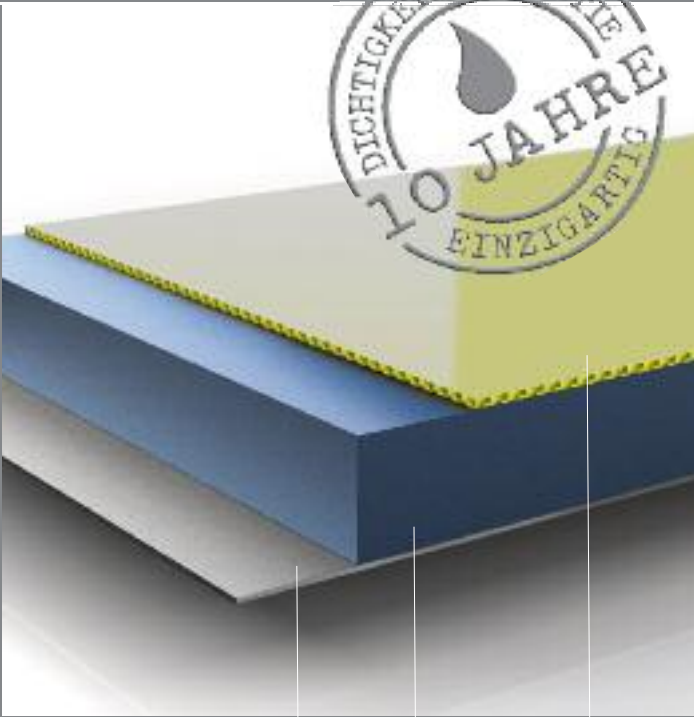
The curved shape connecting the side wall and roof isn't just there for the typical Chic elegance but also gives the cabin additional stability.

The floor and wall construction, which is completely free of a thermal bridge, ensures outstanding year round qualities. The perfect cabin insulation together with the pleasant even flow of warmth from the aluminium layer on the interior of the wall guarantee you an incomparable feeling of well-being even when it's frosty outside. It's good to know that insulation works in the other direction too, that is to say, in the hot summer months working against the heat from outside.

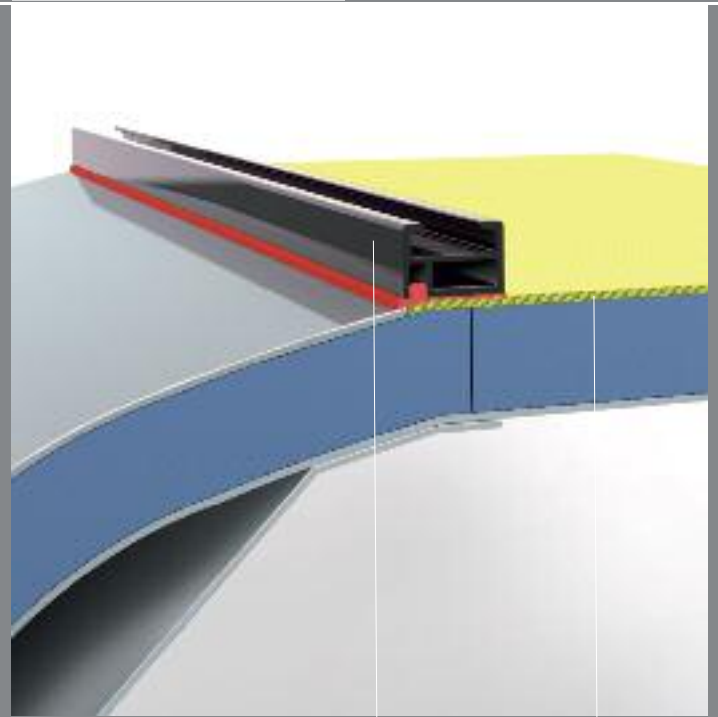
Obviously, this outstanding insulation must not be reduced by openings in the wall, like hatches and windows. Therefore, all hatches are made from the original wall sandwich construction. Thereby, insulation throughout and stability across the whole cabin are guaranteed. This is what 'Carthago Isoplus' stands for.

#### Plus points:

- Longevity
- Driving stability and safety
- No twisting
- No annoying driving noises
- Outstanding insulation
- Isoplus hatch insulation
- Joining without screws
- Timber-free construction
- Individual vehicle colours (white, silversport, silver line)



Roof sandwich comprising aluminium, RTM hard foam and GRP



Roof rail system

GRP hail-resistant roof

## 10-year leak-free guarantee!

The bodywork jointing technology with extruded aluminium sections and bonding across the whole surface ensures you a leak-free cabin for many years.

- Plus points**
- 10 years leak-free guaranteed
  - A good selling point

We give you a 10-year guarantee and, in the case of the Chic e-line, s-plus and high line, this is even at no cost. Just an annual leak check – this is for your own safety – is the basic requirement for the guarantee promise.

## GRP hail-resistant roof

The roof surface on the Chic range is coated with hail-resistant GRP. This prevents serious damage by hailstones and means savings on premiums with some insurers.

- Plus points**
- GRP roof with hail protection
  - Roof rail system

The standard rail system above the curved wall enables the fastening of accessories without any drilling of holes in the roof. Apart from this, the strategically placed water channels along the length of the rails means that water smears from water running down the side are reduced.



Floor

Solid construction underneath

GRP coated connecting floor panel

## Carthago solid double floor

The Carthago double floor technology is really what makes the difference. Even when many manufacturers talk about a 'double floor', there is not always an equivalent design and functionality to support it. Carthago has introduced into its entire program of models, the same method of construction that has been proven over years in the upper range and with this, offers a distinct advantage.

The main distinction between the GRP underfloor hull conventionally used as a double floor is the solid floor connecting plate used by Carthago which has an outer surface that is completely coated with GRP. This is securely screwed and bonded to the framework of the chassis and thus gives an especially robust and stabilising foundation. The resulting rigidity of the base in particular enhances driving stability, directional stability and cornering qualities of your motor home. This effect is further reinforced by the low centre of gravity and the central location of the water tanks in the double floor.

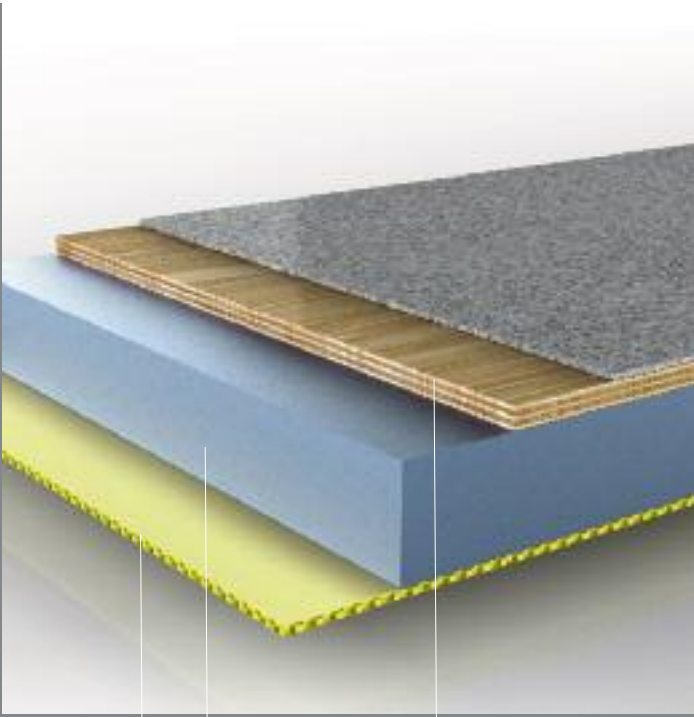
It is no question of chance that a leading specialist magazine came to the following conclusion after the DIN-ISO evasive driving test:

***"This is why it easily passes the DIN-ISO evasive driving test in spite of bad weather conditions with an approach speed of 112 kph – a record for any motor home with front wheel drive tested so far!"***

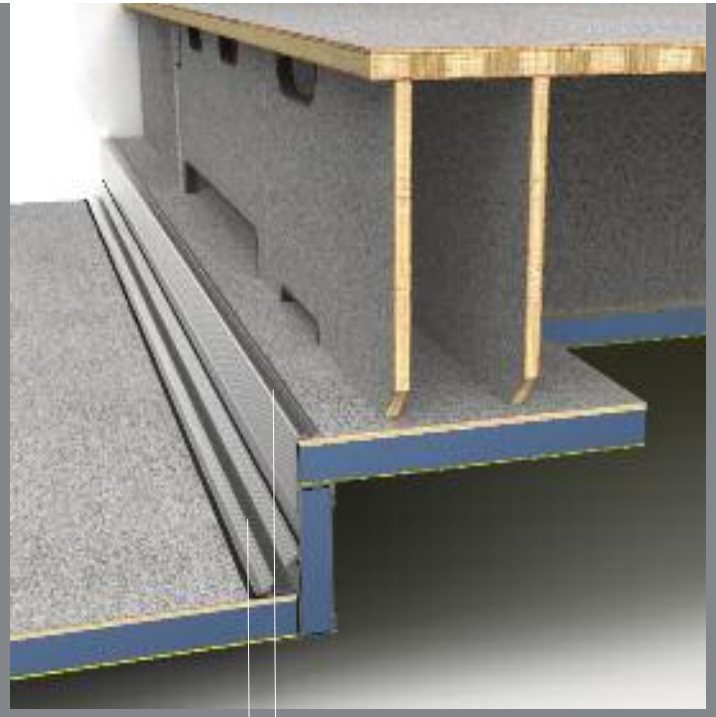
The Carthago solid double floor offers a maximum of driving safety and torsion resistance. As a result, irritating noises such as creaking and knocking are prevented.

As well as stability, the GRP underbody cladding across the whole of its exterior area offers protection against damp, bad weather and damage from stone chippings. A decisive factor for the longevity of your motor home. Bitumen-coated wood floor panels, often used by our competitors, bear no comparison to this.

It's a clear case of a solid foundation being the cause of a good outcome.



Floor panel: GRP, RTM hard foam connecting panel



Very sturdy aluminium sheath all round insulation

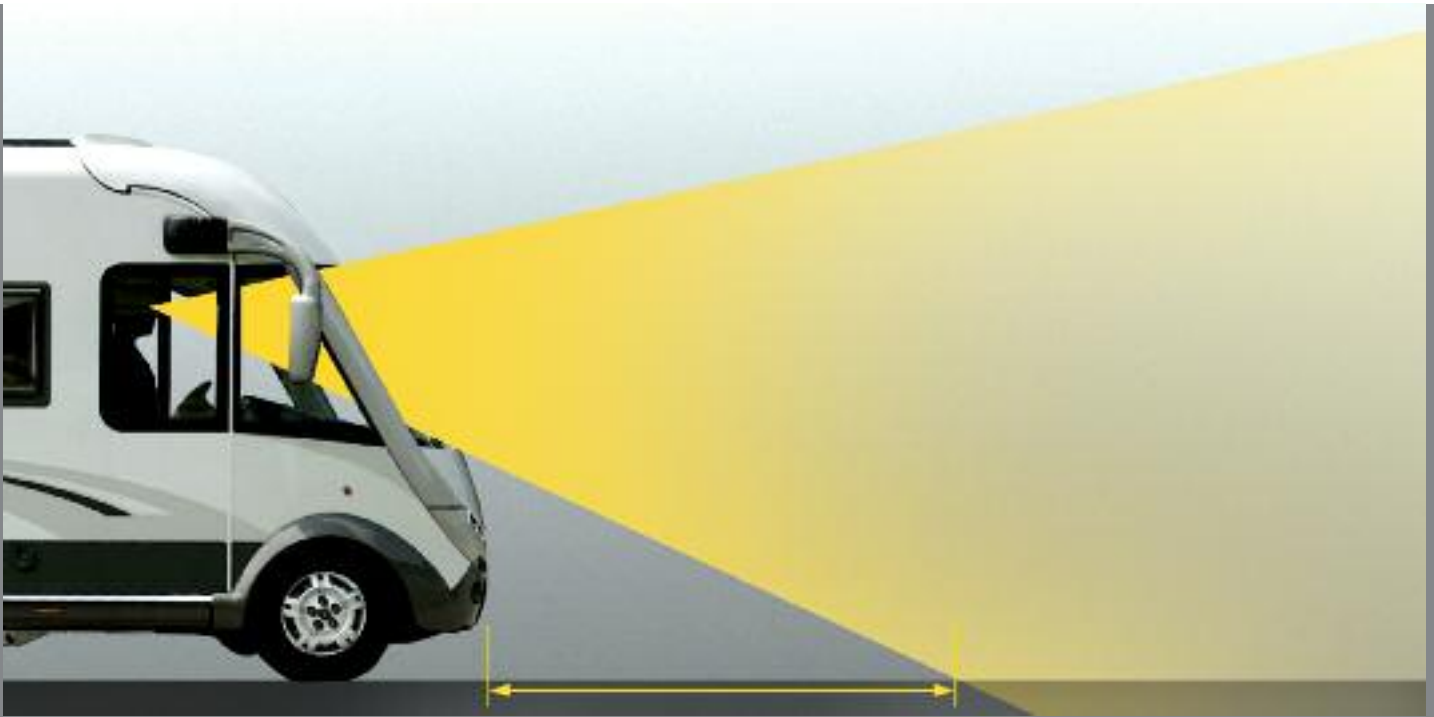
The solid double floor is built on this sturdy floor panel with the help of standing wooden panels, and are firmly bolted and jointed. This 'basement' is the foundation which bears the load of the entire living area equipment. In fact, none other than what we have become accustomed to in house-building.

You can also expect a high degree of comfort alongside stability, safety and driving fun. In fact, it is clear that a basement with such all round insulation will provide very real heat storage in the cold winter months. The living area floor which sits on top is thus always heated from below and warm and cosy. Underfloor heating included, as a matter of course! Technology that is heated also means lovely warm feet. The technology is situated in the heated double floor away from the living area and is easily accessible.

At the side of the double floor, also naturally protected from water and heated to protect against the cold, there is practical storage room that can be loaded from the inside using the bilge hatches (Chic c-line) or from the outside using the large storage hatches.

#### Plus points

- Upper range double floor technology
- GRP coated floor panel
- Protection against damp
- Outstanding driving stability, directional stability and cornering qualities
- No irritating driving noise
- High torsion resistance
- All round insulation without thermal bridge
- Underfloor heating
- Frost-protected accommodation for technological equipment in a central location
- Underfloor storage room



Optimum field of vision created by low-set windscreen and dashboard that slopes away from the driver

## Carthago driving safety

Your safety on the road with your Carthago motor home means a great deal to us and we have done everything possible to achieve this. Our understanding of safety is not only safety on the road, but also your safety when you arrive at your holiday destination.

The important factors for your driving safety have their root in the choice of base for the motor home. In the Chic c-line and e-line ranges, we use low-frame chassis that are especially made for Carthago by Alko. Key characteristics are the low base to accommodate the solid double floor and extremely wide gauge of almost 2 metres. The combination of a low centre of gravity and extremely wide gauge means driving fun and driving safety at the same time. Particularly in this area, Carthago is a leading player.

Should you be involved in an accident, and we certainly hope you are not, it is good to know that the safety bodywork of your Carthago provides you with an above-average level of crash safety. The high stability and tough non-buckling qualities of the timber-free sandwich bodywork with stable bonding act together like a kind of 'crash box' and this is a big factor in terms of passenger safety.

Safety on the road is also very much about vision! The Carthago long-range vision concept sets the standard here. Because the dashboard slopes steeply away from the driver and the windscreen is already situated very low down, the carriageway is just a short distance away and easy to see. This gives a definite feeling of safety.

It is not just the forward view, but the coach-style mirror suspended to the side also provides the best all-round view to the rear. You are well-placed and there is no irritating A-pillar in the way.

Talking of vision, you will also be seen even more quickly by others in the 2010 Chic e-line, s-plus and high-line generation. This is because you have an innovative LED day driving light which provides additional safety

### Plus points:

- Driving safety with special low frames
- Cornering stability with super wide gauge
- Cornering stability with low centre of gravity
- Carthago 'Crash box' safety bodywork
- Long-range vision concept in driver cabin
- All-round vision with large coach-style mirror
- Cockpit / driver cabin arrangement with clear view
- Innovative LED day driving light



Entry cabin door  
with fingerprint system



BKS additional security lock



Internal track key

## Carthago protection against break-in

Holidays are about relaxation. Your motor home also has the optimal prerequisites to take care of this. And so, we have thought about your security as well, for example in relation to unwanted guests.

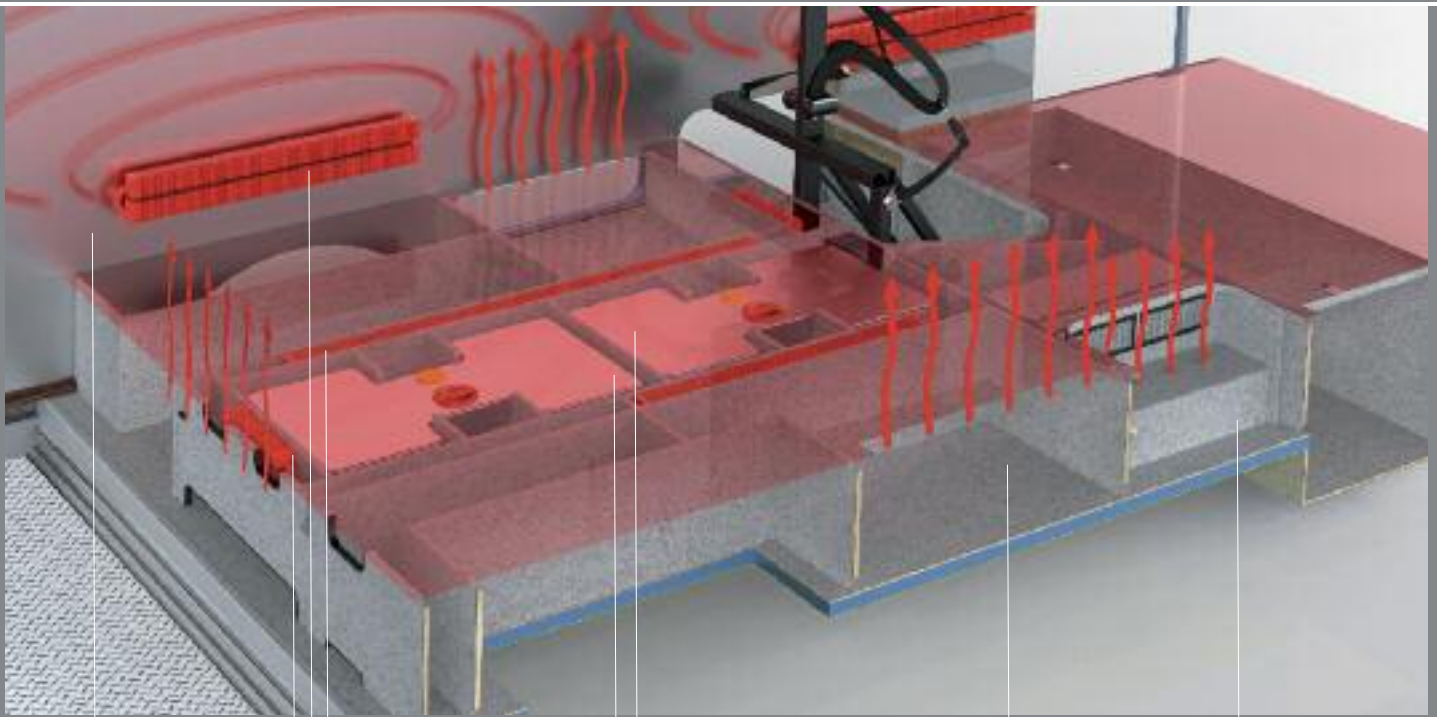
Main cabin doors with security double locking are standard with every Carthago, and with the e-line upwards, we are even using main cabin doors with triple bolts and interior steel hinges.

Also, we are offering BKS additional security locks from the house construction domain which makes it virtually impossible for an unauthorized person to open the doors. For hatch and door locks, we use special lock cylinders for so-called internal track keys. They give increased security using a key code with a standard based on the automobile industry.

Carthago uses quality windows in the main cabin which, contrary to fitted windows, offer protection against break-ins as well as outstanding insulation. The window panes are sunk into the outer frame which makes it difficult to lever the window up.

### Plus points:

- Main cabin doors with security locking
- Internal track locking system
- Quality main cabin windows with panes integrated into frame
- Integrated double glazing on side windows in driver cabin from Chic e-line upwards
- Entry cabin door with fingerprint system



Ventilation from behind

Heating convectors

Water tanks

Warm air channels

Solid double floor

## Carthago winter hardiness / all year round features

The name Carthago stands for premium quality. This has been and is a fundamental strategy of Carthago. A true premium motor home is winter hardy and is made for use all year round and in difficult conditions.

Because of our many years of experience in the upper range, Carthago is in a position to transfer upper range technology as standard technology and standard equipment for all Carthago models in our product program.

For us, quality features are not meant to be retrospective upgrades. A Carthago has premium technology as standard. Every Carthago motor home is designed for this technology from the outset and thus guarantees an optimal and effective functioning.

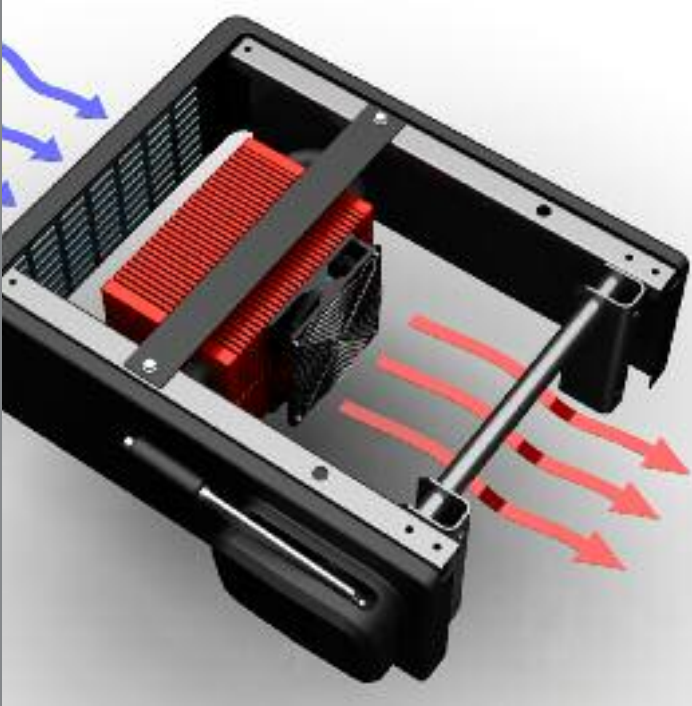
Take, for example, the warm water central heating technology. For years, this heating system has been standard in every Carthago motor home. It is only logical that the warm air channels in the double floor, the optimum placement and design of the heat convectors, as well as the ventilation from behind the furnishings are perfectly suited to one and other in terms of promoting heat circulation.

This is one of the reasons for the great success of our motor homes in Scandinavian countries. There, this function has been proven in practice, on an everyday basis.

Of course, we continue to carry out tough tests in cold chambers in order to achieve optimum efficiency in insulation and heating. And, it must be said, we will not be satisfied until we are the best!

You see, a perfectly functioning warm water heating system begins right at the beginning of the development of the vehicle. This is how it is with our Chic. This also applies, of course, to our well thought-out, weight reducing air heating system in the Chic c-line. With both heating systems, we have achieved record results in tests and these are backed up by performance in practice.

Before installation comes construction; the Carthago double floor construction and the cabin's aluminium coating play a significant role here. The heat is stored in the insulated double floor, which has no thermal bridge, and keeps the technological equipment inside frost-free. The living area floor is permanently heated by the cushion of warmth in the double floor. Therefore, there are no cold floors in a Carthago motor home and thus, no cold feet.



Heating booster under driver seat



Exterior hatch with side wall sandwich style filling

The warmth in the living area is absorbed by the aluminium interior of the walls and distributed and spread across the whole surface of the wall. This creates the pleasant effect of even and constant heat radiation.

This is totally draught-free and is long-lasting, since the warmth is effectively stored in the walls as well.

This is a further example of a degree of efficiency that cannot be achieved with a conventional wall construction with a wooden, coated interior. It is well-known that aluminium is a better heat conductor than wood.

Our thermal concept for optimum warmth and cold insulation comprises a package of measures. In particular, in the driver cabins of our integrated models from Chic e-line upwards, the measures are clear to see:

- Double convector package on the passenger side extending up to the dashboard
- Heating booster with connecting fan under driver seat
- Alde heat exchanger for heating of main cabin during the journey with heat from the engine
- Honeycomb insulating blind or optional electric front blind
- Insulating double glazing on side windows in driver cabin and blackout blind
- Underfloor heating effect created by warmth cushion in double floor.

The easily accessible drainage taps for fresh and waste water are easy to operate, even in deepest winter. No freezing, no soiling, easy to access.

**Plus points:**

- Application of years of experience in the upper range
- Motor homes are developed from the outset for this technology
- Quality standard solutions instead of retro-fitted solutions
- Thorough cold chamber tests
- Insulated double floor with no thermal bridge
- Warm air distribution channels in double floor
- Technology housed in double floor protected against frost
- Aluminium/aluminium sandwich with aluminium interior conducts and stores heat
- Underfloor heating
- Drainage cocks and tanks situated in double floor and protected against frost



Highly stability of furnishings



Durafix furniture joining techniques

## Carthago furniture – built by craftsmen

What applies for the bodywork also applies for our furniture. Every furniture shell is exclusively produced in our own joinery and processed with care, by craftsmen.

We only use multi-bonded plywood with high stability. The result is a look and a dreamlike quality you can feel.

But it is not only the furniture itself, but rather the way it is integrated into the motor home that is important later when it comes to the smooth running and longevity.

By placing the furniture groupings directly onto the solid double floor, Carthago achieves a very high degree of stability. The stability does not come from suspending the furniture on the walls but rather from the support it gets from being attached to the floor. A construction that is secure and long-lasting! Because of this, there is no knocking and banging. The furniture itself represents a self-supporting 'package'.

A speciality of Carthago is the joining technology of individual furniture parts. These are not just bolted together – as is usual – but are also lavishly connected in true cabinet-maker tradition using tongue and groove. The result is a very precise and durable connection of the shell components. Each furniture door is fitted with a double dose of anti-knocking cushioning as an additional noise reduction measure.

A further and important point for noise reduction is the lining of the inside of the bodywork with insulating covering. This prevents background noises and contributes to good acoustics.

As for the furniture locks, the hatch mountings and drawer mechanisms, we only use good quality household standard equipment, something that goes without saying in a Carthago motor home.

Differences you can feel, hear (or indeed, not hear) and see!

### Plus points:

- Furniture parts made in-house
- Multi-bonded, stable wood
- All furniture pieces are self-supporting on the vehicle floor
- Double connection: bolted and jointed
- Anti-knocking cushioning on furniture doors
- Insulated velour covering on inside of wall reduces noise
- Mountings, hinges, drawers in solid household quality



Technical control panel (not c-line)



Innovative lighting

## Carthago technology as standard

What applies for our construction technology also applies for the supplies technology in the motor home. With our many years of experience in the upper range, Carthago achieves the highest standards.

Take the new lighting technology as an example:

From 2010, modern LED lighting technology in the living area is being used to a large degree in the Chic e-line upwards. Using innovative dimmer technology, you can determine the mood you want to create yourself. It's really simple, just a turn of the switch. The changeover switching system is practical and easy to operate. There are switches in the rear, living and entrance areas and thus, are easily accessible from all the main areas of the cabin.

The highlight is the 'night light'; this is night lighting situated close to the floor so that it doesn't disturb those sleeping but it does a great job getting you around the motor home in the dark.

There is also state-of-the-art lighting technology outside: with effect from the 2010 generation, the Chic e-line, s-line and high-line are getting an LED day driving light. You will be seen sooner and better, giving additional safety.

We have, of course, thought about making your technical equipment service-friendly. The entire electrical technology, including the fusing, is accommodated in an easily accessible technical centre in the rear garage (in the double floor of the Chic c-line). Just underneath are the battery compartments, which are easy to get to from behind via the rear garage, and in the Chic c-line, are accessible in a battery compartment in the double floor.

The entire heating system is also easy to maintain and accessible, in most models in the side seat of the circular seating arrangement.

The level indicators, energy data and consumption levels can be read using the clear control panel in the entrance area. From the Chic e-line upwards, there is a touch screen function that is simple and clear to operate.

The entire water supply system is also installed in a way that is maintenance friendly. Tank cleaning openings are accessible via the bilge hatches in the double floor. We insist on high performance water pressure systems in all models. The advantage is that they offer at every point of service the same pressure and, all in all, need little maintenance and are durable.

### Plus points:

- Technology standards from the upper range
- Practical lighting with dimmer function
- LED lighting
- LED safety day driving light
- Service-friendly accommodation of equipment
- Water pressure system
- Control panel with plastic key pad