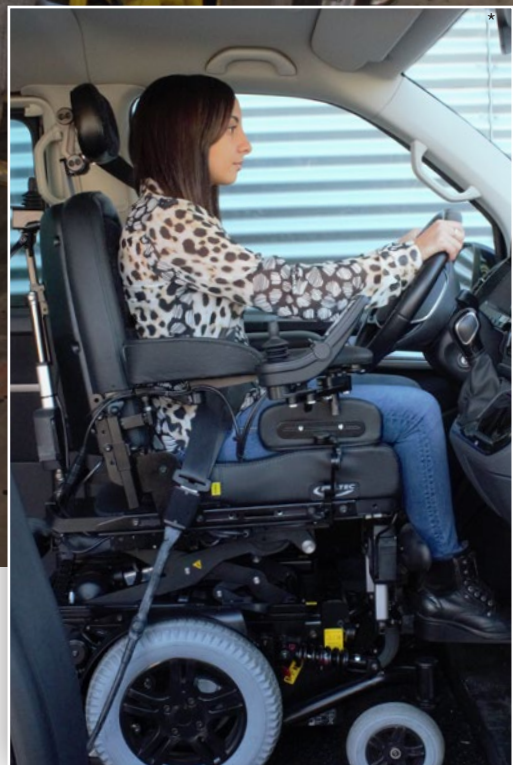


# PRODUCT CATALOGUE

ENGLISH







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Dahl Engineering was founded by Claus Dahl Pedersen, who has more than 30 years’ experience in the field of development, safety testing and production of seats and safety equipment for the automobile industry.

Dahl Engineering is a specialized business enterprise that offers development, safety tests and production of various special products and equipment for vehicles for the disabled, private cars, vans, buses, racing cars, ambulances, police cars, military vehicles as well as aids and appliances for people with disabilities.

In 2005 Dahl Engineering established a 900 m² factory building, containing Denmark’s only test facility for dynamic tests (crash tests), a hydraulic tensile testing facility, a prototype workshop and production facilities for research, product development and manufacturing. In 2006, 2011 and 2018 the building was extended so that there now are 2.100 square meters under its roof.

Dahl Engineering is recognized as national test laboratory by the Danish Road Safety agency (Færdselsstyrelsen). Certification tests in accordance with EU directives and international safety standards, supervised by the accredited test institute TÜV Rheinland can also be performed on the company’s test facility.

New areas of focus for safety

Safety in motor vehicles is continuously developing. New issues will always continue to appear, for which new solutions and technologies will need to be found. Most wheel-chairs and mobility aids for the handicapped are unable to withstand the loads they are subjected to during a road traffic accident. For wheelchair users transported by vehicle, this represents a considerable safety risk that only until recently has been the subject of only minor interest. Due to the introduction of EU-framework directive 2007/46, EU-regulation 2018/858, Annex II, Part III, Appendix 3, which addresses procedures for test and approval of restraining equipment and safety belts, new standards for the safety of wheelchair users in vehicles have been set.

In the past years there has emerged an increased focus on security when wheelchairs are used as seats in vehicles. This has i.a. led to wheelchair-tenderings requiring that the **wheelchair and restraint system is crash tested together and thus lives up to ISO 7176-19**. We receive an increasing number of enquiries about which wheelchair models are tested with our Docking system, and how the Docking system is correctly installed on the wheelchair.

We experience that car converters and occupational therapists want to assure themselves, that **they do not invalidate the CE label when mounting the Docking system**, which they do, if they do not follow the instructions of the wheelchair manufacturer.

With more than 25 years’ experience in the development, safety testing and production of automotive equipment, Dahl Engineering possesses a wealth of knowledge in this area.

As a supplier of components, we are also able to offer close co-operation with regard to the development and testing/certification of components in the conjunction in which they are to be used.

Dahl Engineering is specialized in the supply of certified equipment that is tested such that international safety standards and EU safety requirements in motor vehicles are satisfied. This applies regardless of whether the products are for disabled or non-disabled use – where this is possible – with due consideration of the design and function of the aid and appliance concerned.



Dahl Docking Station

The safety standards for restraint equipment for wheelchairs are not as strict as the safety requirements for other equipment used in motor vehicles. Restraint equipment, according to the current ISO standard, only has to be able to withstand the load from a wheelchair with a weight of 85 kg.

At Dahl Engineering, we think that these requirements are inadequate, and have therefore developed the safest and most thoroughly tested system on the market. Dahl’s Docking Station is supplied with the most comprehensive documentation material on the market, and is the first system to be tested and TÜV certified in a large number of vehicles for wheelchairs weighing 200 kg + user. We offer over 55 vehicle specific fitting kits.

Dahl Engineering is specialized in providing restraint equipment for wheelchair users, that meet the strict EU M1 safety requirements for cars in accordance with ECE regulations 14 and 17 (relating to the anchorage of seats and safety belts in motor vehicles) where this is possible – with due consideration of the design and function of the aid and appliance concerned. At the time of writing, we have also tested the Mercedes Sprinter 907/910, Freightliner Sprinter, and VW Crafter (-2016) according to FMVSS/CMVSS 207/210.



ECE regulation 17  
H-point measurement

4-point WTORS

We have performed more than 150 tests of Dahl’s 4-point WTORS in vehicles according to EU-regulation 2018/858, Annex II, Part III, Appendix 3, as well as ISO 10542-1:2012 and 7176-19:2022. Based on the number of tests, we have obtained TÜV approval for more than 85 vehicle specific fitting kits from 85 kg to 200 kg. Thus, Dahl Engineering’s 4-point wheelchair restraints are at the very forefront of the latest EU safety requirements for wheelchair users in motor vehicles.



ECE regulation 14

Car conversion

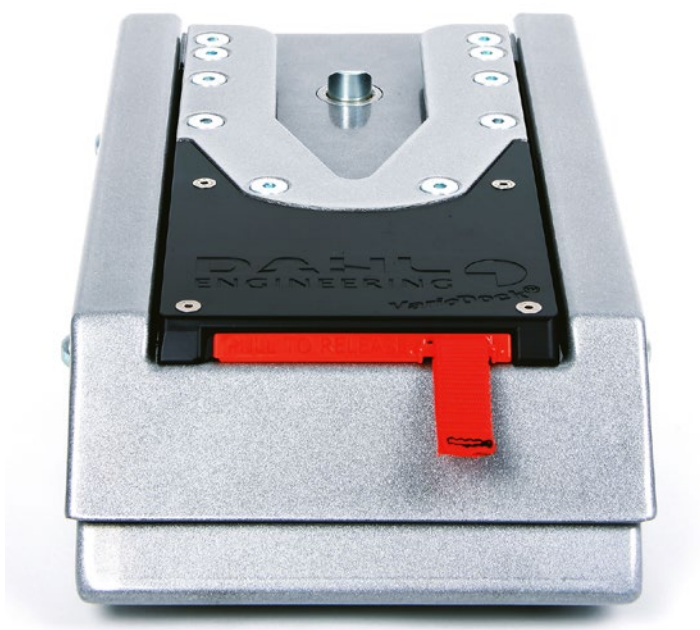
We offer car converters to cooperate in tests, where our products are being used, so that the converted vehicle meets applicable safety requirements. We can perform fatigue tests of the vehicle body according to TÜV Merkblatt 751. The purpose of the test is to determine if the vehicle’s load carrying components will crack or collapse under the stresses it will be exposed to during years of use. The converted vehicle body can be exposed to 150.000 test cycles. Based on the tests performed, vehicle converter can then apply for acceptance of the conversion at the car manufacturer to obtain a so called “No objection certificate”.





# Dahl Engineering sets again new standards for flexibility and safety!

We are happy to announce that we can now offer two different types of docking stations, which can be used for numerous different transportation needs. Almost all the wheelchairs, which have been tested with our Dahl Docking Station MK II, are compatible with Dahl VarioDock™.



**Dahl VarioDock™**  
Our electrically height-adjustable Docking Station, enables fastening of wheelchairs with different ground clearances and seats with an integrated 3-point belt.

- Complies with ISO 10542-1, ISO 7176-19 and the strict test requirements in accordance with ECE Regulations 14 and 17 regarding test of seats and belt anchorages in vehicle category M1.
- Electrical height adjustment (from 61-91 mm).
- Tested for wheelchairs weighing up to 200 kg plus user.
- Approved for anchoring Dahl COMFORT Seat
- Crash tested and CE marked with approx. 160+ wheelchair models.

## Dahl Docking Station MK II

is our second generation Docking Station, which enables the tiedown of wheelchairs from many different wheelchair manufacturers.

- Complies with ISO 10542-1, ISO 7176-19 and the strict test requirements according to ECE regulations 14 and 17 regarding testing of seats and seat belt anchorages in vehicle category M1.
- Height adjustment through use of spacers
- Tested for wheelchairs weighing up to 200 kg plus user
- Crash tested and CE marked with approx. 160+ wheelchair models.



Find the correct docking kit for your vehicle in our compliance guide on approved products and vehicles.

# Approved wheelchairs with our docking systems

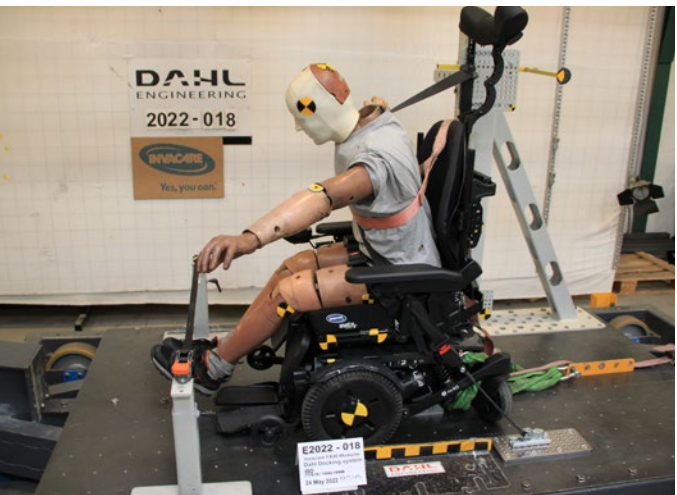
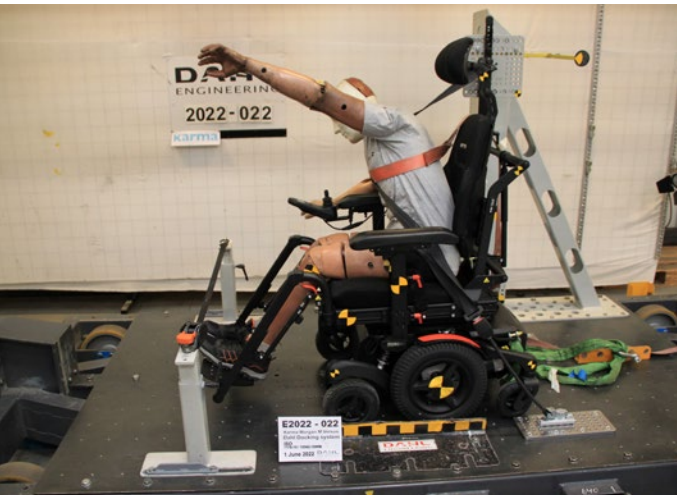
According to the EU's medical directive, a wheelchair is classified as medical equipment class 1, and must be CE-marked and approved as such. Whoever installs or adapts non-approved equipment or installs the system in a way that falls outside the wheelchair manufacturer's specifications, breaks the CE-approval, and is considered a responsible manufacturer and is therefore responsible for the equipment's quality, safety, performance, and technical documentation according to requirements in the regulation on medical equipment.

If our docking systems are installed on a wheelchair that has been tested and approved by the wheelchair manufacturer, its CE-approval remains intact. It is strongly advisable, that the instructions in the wheelchair manufacturer's manual are followed closely.

Videos of crash-tests, as well as the wheelchair manufacturers' user and service manuals are available on our website.

Find the list of all tested and approved wheelchairs in our compliance guide on approved products and vehicles.

## Examples of successfully tested wheelchairs with our Dahl Docking Systems





Dahl MADST™, short for **Multi Adjustable Docking System**, is our new patented docking adaptation system which makes it possible to dock and secure manual wheelchairs with fixed frames as well as folding frames into our docking station models MK II and the VarioDock™.

The Dahl MADST™ consists of a light weight subframe which can be adjusted in height, inclination, and length. Thus, it can easily be adapted to different wheelchair widths and will function together with a multitude of wheelchair settings, which are needed to obtain the individual user´s optimal seating position.

By means of brackets fastened to the wheelchair frame and a simple and effective locking system, the subframe can quickly be attached and removed without any tools and stowed away when not in use. This feature is a must when collapsing a folding chair, but it is also built into the design for most fixed frame models.

During the past years, we have received an increasing number of inquiries for using our docking stations to secure manual wheelchairs. Requests came from private vehicle owners, nursing homes, and schools as well as public and private transport providers looking to replace the time consuming and work intensive 4-point wheelchair securement systems commonly used.

The MADST™ adaptation kits are tailor-made for the specific wheelchair make and model and are tested together according to ISO 7176-19:2022.

If your wheelchair model has not been approved for MADST™, we will be happy to work together with the wheelchair manufacturers to develop a kit.

Manufacturers of approved wheelchairs present on the European market have CE-marked their chairs for use with the Dahl MADST™. Consequently, the CE-marking and warranty of the chair will remain intact when installing the Dahl MADST™ adaptation kit in compliance with the wheelchair manufacturer's instructions.

Our new Dahl VarioDock™ is not only the only power-height adjustable wheelchair Docking station, which facilitates securing wheelchairs with different ground clearances and vehicle passenger seats with integrated 3 point belt, but it is also the only system to meet standard ISO 10542-1, ISO 7176-19 and the strict M1 in-vehicle testing requirements for seats and seat belt anchorages according to ECE regulations 14 and 17.

Thanks to the Dahl VarioDock™ system, securing wheelchair users and other seated occupants can be carried out with an unprecedented ease, speed and safety. The Dahl VarioDock™ docking system offers more flexibility and versatility than any other seat anchoring system because the seat and wheelchair layout can be changed very quickly with a minimum of effort and time consumption. A docking system also improves the working environment considerably for drivers, who often struggle with cramped spaces and bad working positions when tying down wheelchairs with 4 point strap systems.

- Power height adjustment from 61 - 91 mm.
- Time consumption only ¼ of tying down wheelchair with 4 point strap system.
- Tested for wheelchairs with a weight of up to 200 kg plus user.
- Approved for anchoring Dahl COMFORT Seat
- 4 step power tightening system to eliminate unwanted play.
- Opening time for lock selectable in 5 or 8 seconds intervals.
- "Maintenance required" warning in display
- Improves working environment for drivers.
- No tie down straps on vehicle floor to trip over.
- Crash tested and CE-marked with approximately 160+ wheelchair models



MULTI ADJUSTABLE • QUICK RELEASE







Dahl VarioDock™ can be used to secure manual and powered wheelchairs with a weight of up to 200 kg plus user, as well as our Dahl COMFORT Seat with integrated 3 point safety belt.



Contents of Dahl VarioDock™ base kit part no. 503600.



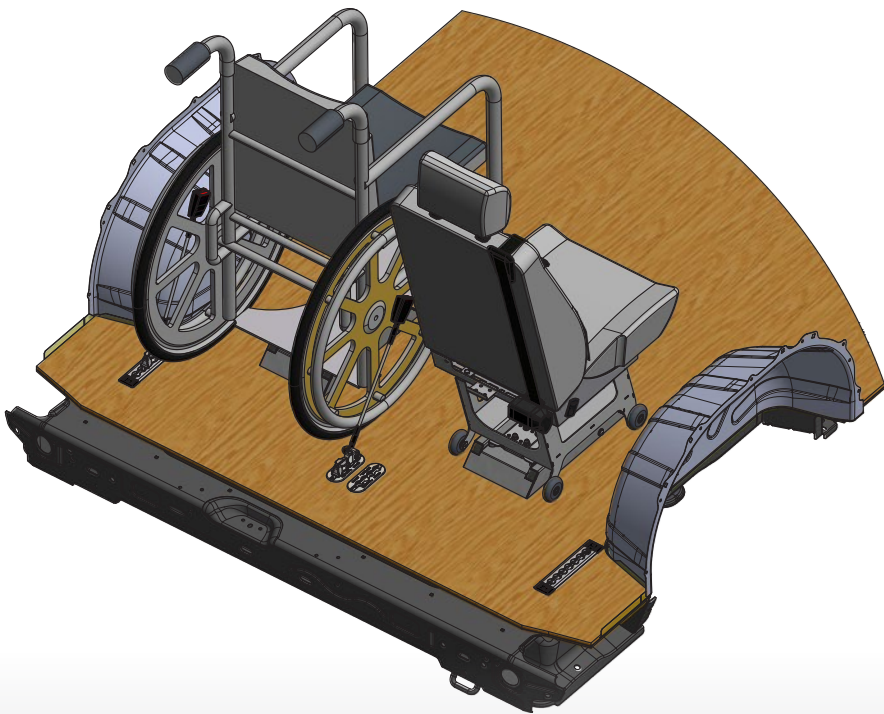
Anchorage of Dahl COMFORT Seat with integrated 3-point seat belt

Dahl VarioDock™ has also been tested and approved for anchoring Dahl COMFORT Seat with integrated 3-point seat belt, placed on seat row 2 or behind, in a number of vehicle models.

Using VarioDock™ for anchoring the Dahl COMFORT Seat with an integrated 3-point seat belt requires a particularly strong reinforcement kit for the vehicle floor which is designed, tested and approved for the specific vehicle and installation position.

In the event of a collision, the vehicle's floor will be subjected to a much higher torque / load when using a seat with integrated seat anchorage points, than when using a wheelchair, where all seat anchorage points are rooted in the vehicle body and floor.

Please see the current delivery programme of approved and vehicle-specific anchoring kits in our product catalogue, which can be downloaded from our website <http://wtors.com>



**WARNING! Risk of death or serious injury**

Do not use VarioDock™ to anchor Dahl COMFORT Seats or other seats with integrated seat belt anchor points, if the vehicle has not been fitted with an approved reinforcement kit for VarioDock™.

If a reinforcement kit that has been approved for this use has not been fitted, there is a risk that the user and other passengers in the vehicle may suffer serious or fatal injuries during a collision as a result of the vehicle floor being deformed severely or the anchoring points of the docking station being torn loose.

Therefore, ask your dealer if a VarioDock™ reinforcement kit approved for anchorage of Dahl COMFORT Seat has been fitted to the vehicle and mounting position prior to commissioning.



# Dahl Docking Station Mk II

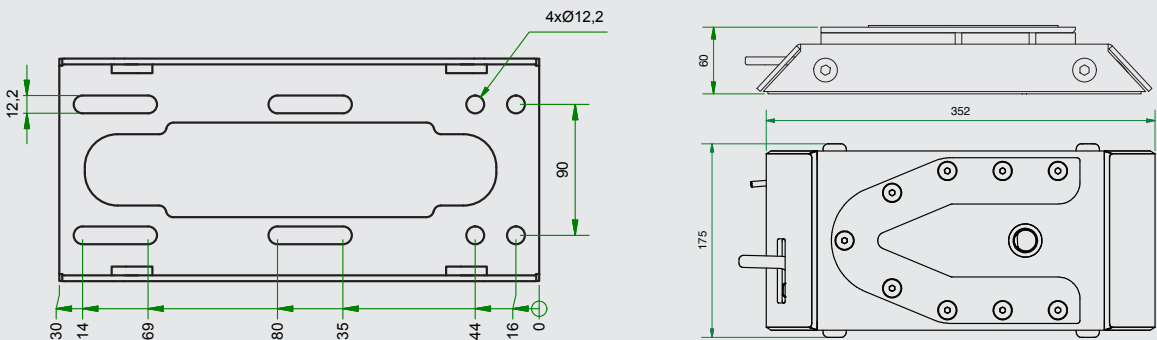


Part no.: 501750 - Dahl Docking Station MK II

Dahl Engineering's Docking System provides a hitherto unseen flexibility and safety for wheelchair users. The Docking System is the first system on the market to be tested and TÜV certified in accordance with EU safety requirements for cars (M1). In testing, the docking station has proved to be so strong that it can withstand a load corresponding to a wheelchair weight of more than 200 kg + passenger provided that the safety belt is installed in the traditional manner in the floor of the vehicle.



Part no. 501750  
Contents of a standard set for MK II.



You can find more information about maintenance and installation of the Dahl Docking Station MK II on our website.

# Dahl Docking Station MK II

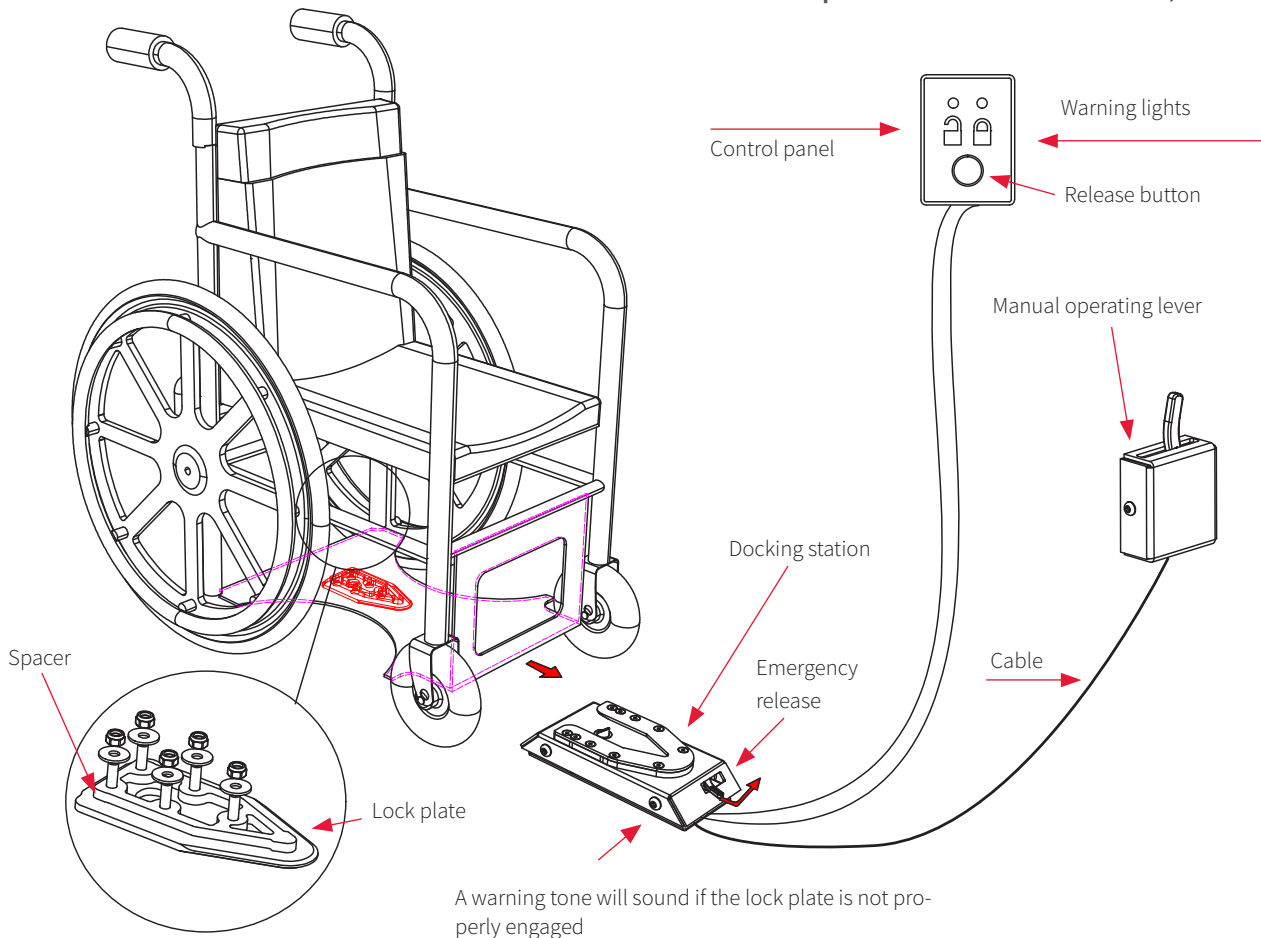


A lock plate and a spacer must be fitted under the wheelchair. When the wheelchair is maneuvered towards the docking station, it is guided into place by means of the lock plate and is secured automatically.

The wheelchair is released by pressing the red button on the control panel.



## Description of the function / MK II







Seat base for anchoring original driver’s seats  
with Dahl Docking Station MKII and VarioDock™

In addition to being approved for securing wheelchair tie-down, the Dahl Docking Station MKII and VarioDock™ have also been tested and approved for anchoring several original car manufacturers’ seats.

These seat bases with pre-drilled holes can be anchored in the Dahl Docking Station MK II and VarioDock™ and placed on the vehicles’ 1st seat row, allowing the driver and passenger to switch seats.

Our seat base is tested according to ECE regulation 14 and 17.

Please ask which seat base is best suited for the specific car model.

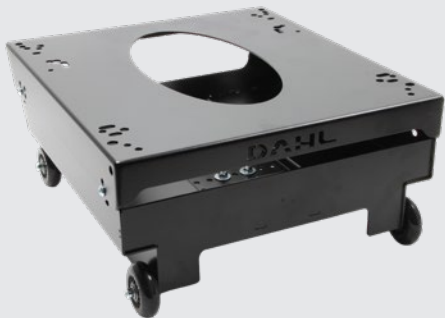
Part no. 503245  
Height 135-202 mm

Part no. 501448  
Height 135-202 mm (wide base)

Part no. 500650  
Height 174-241 mm

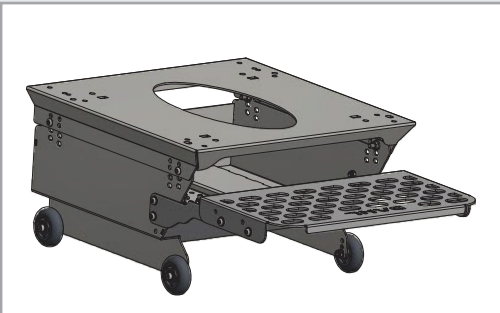
Part no. 502270  
Height 231-297 mm

Part no. 502214  
Height 231-297 mm (wide base)



Part no. 501384  
Footrest for seat base in drop floor converted vehicles.  
Fits: 502270, 502214, and 500650.

Acquire Dahl drawing no. 501396 to cross-check dimensions for vehicle in question.



The seat base frame can be assembled in 36 different positions for optimum flexibility and comfort, thus allowing the seat height and angle to be adjusted.



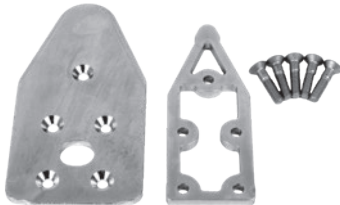
MKII Docking station

Servicekits

PART. NO.	DESCRIPTION
502010	Service kit (before 05/2017)
502493	Service kit (06/2017-)

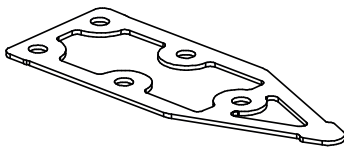
Lock plate

PART. NO.	DESCRIPTION
503125	Lock plate with bolts and 8 mm spacer



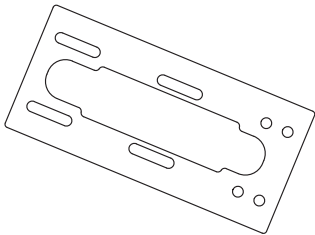
Spacers for height adjustment of the lock plate

PART. NO.	DESCRIPTION
500670	Spacer 1 mm
500671	Spacer 2 mm
500672	Spacer 3 mm
500673	Spacer 8 mm
500674	Spacer 10 mm
503682	Spacer 12 mm



Spacer for docking station

PART. NO.	DESCRIPTION
500589	Spacer 1 mm
500590	Spacer 3 mm
502044	Spacer 10 mm



Subframes

PART. NO.	DESCRIPTION
501790	Subframe 85 mm
501791	Subframe 100 mm



Circuit board

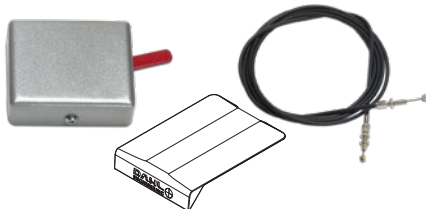
PART. NO.	DESCRIPTION
501862	Circuit board

Control panel

PART. NO.	DESCRIPTION
500688	Controlpanel

Manual operating lever

PART. NO.	DESCRIPTION
500680	Manual operating lever
502418	Cable for manual operating lever
503161	Emergency release tool



Vario™ Docking station

Servicekit

PART. NO.	DESCRIPTION
503636	Service kit

Control Box

PART. NO.	DESCRIPTION
503630	Circuit Board (PCB), only
503700	Control Box with wiring harness and PCB

Control panel

PART. NO.	DESCRIPTION
503550	Controlpanel



Manual operating lever

PART. NO.	DESCRIPTION
5053161	Emergency release tool

Lockplate

PART. NO.	DESCRIPTION
503125	Låseplade med bolte og 8 mm afstandsstykker

See the full spare parts list for docking stations in the installation and user manual.





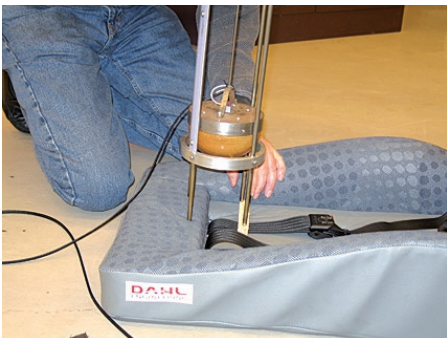
Before being put into production, development work has resulted in the performance of more than 130 tests on the product in our own test laboratory in Thisted and at laboratories abroad.

In addition to the ECE 44/04 standards, the seat also satisfies the ECE's strict M1 requirements for passenger cars and M2 for minibuses in accordance with ECE 14, 16 and 17.

Our HYBRID and COMFORT Seats are testet according to ECE 14 in the following vehicle models:

Citroën Jumpy Y	Mercedes Sprinter	Peugeot Boxer Y
Fiat Ducato X250	906,907&910	Renault Master X62
Ford Transit Custom V362	Mercedes Vito 447	VW Crafter 2006-2016
MAN TGE	Nissan NV400	VW Crafter 2017-
	Opel Movano X62	VW T5 & T6

We have also testet our HYBRID and COMFORT Seats according to FMVSS 207/210, and CMVSS 207/210 in Mercedes Sprinter 907 and 910.



COMFORT SEAT™ is the only seat on the market for minibuses with a built-in 3-point seatbelt and designed with extra lateral support and upholstery springs in both the seat cushion and back.

COMFORT SEAT™ thus has the same level of comfort as passenger car seats. Normally the seat and back in minibuses are upholstered on metal or plywood sheets.

COMFORT SEAT™ can be supplied with adjustable armrests and slide rails.



HYBRID SEAT™



HYBRID SEAT  
is **ONLY** available  
as a **project sale**  
– **contact us to inquire**  
**further.**



HYBRID SEAT™ is based on an ultra-compact design that allows for the integration of a child seat into an adult seat. It meets the EU's strictest standards for seats in passenger cars (M1) as well as ECE Regulation 44/04 for child seats in groups 1, 2, and 3\*. This means that the HYBRID SEAT™ can be used by children from 9 months of age. The seat includes a built-in 3-point seatbelt for older children and adults, as well as a 5-point harness for the youngest passengers.

Patented multifunctional seat with integrated child safety seat – 4 in one

The HYBRID SEAT™ can replace loose child safety seats in minibuses, addressing three practical issues: safety, space, and time consumption. In just 3 seconds, the HYBRID SEAT™ can be transformed from a child safety seat into an adult seat and vice versa.

HYBRID SEAT saves time and saves lives

With the HYBRID SEAT™ installed in a minibus, the owner can offer safe and flexible transport for schools, kindergartens, nursing homes, and institutions in any order, without spending time retrieving and installing child safety seats.

Dahl Engineering is the first and only company on the market with ECE 44/04-approved seats that are both removable and adjustable, featuring integrated child safety seats for all seating positions in a minibus. The seat fits a newly developed, robust rail system that can be installed in the minibus, al-lowing the seat to be moved around or completely removed to make space for a wheelchair, for example.

\* ECE 44/04 group classification of children:  
Group 1: 9-18 kg / Group 2: 15-25 kg / Group 3: 22-36 kg

Example of using a 5-point harness



Children in Groups 1 and 2 are secured with the built-in 5-point harness.

Accessories for HYBRID and COMFORT SEAT

Legs for fixed installation  
of Dahl Seats

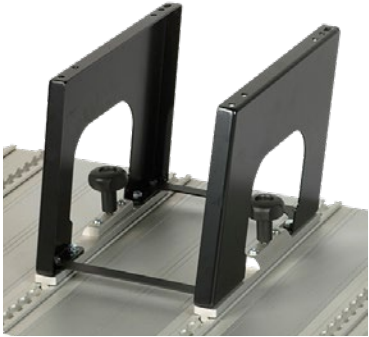
Part no.	Height
501560	270 mm
501561	300 mm
501562	325 mm
501563	350 mm



Please enquire, which leg heights are approved for the specific vehicle model.

Legs for rail installation  
of Dahl Seats

Part no.	Height
501564	270 mm
501565	300 mm
501566	325 mm
501567	350 mm



**Be careful:**  
Due to rail installation, the overall height is 10mm higher.

Part.no. 502162  
Dahl HEAVY DUTY floor rail,  
flush mount, 3230 mm



Part no. 502228  
End cap for Dahl HEAVY DUTY  
floor rail (flush mount)  
part no. 502162



Part no. 500777  
Dahl HEAVY DUTY floor rail, 3230 mm



Part no. 500780  
End cap for Dahl  
HEAVY DUTY floor rail  
part no. 500777



Seat anchorage plates



Part no. 500093	620 mm
Part no. 500083	747 mm
Part no. 500089	935 mm
Part no. 500090	1497 mm
Part no. 500110	1995 mm
Part no. 500092	2495 mm
Part no. 500109	2995 mm

Part no. 500911  
Reinforcement profile, 2495mm



Part no. 502138  
Reinforcement profile, 2487 mm



Part no. 501325  
Dahl Lockable rail fitting for  
Dahl heavy duty floor rail



Part no. 500602  
Cover for COMFORT  
Seat, ask for available  
models



Part no. 500076  
Adjustable armrest - right



Part no. 503545  
Seat base for anchoring  
Dahl COMFORT Seat with  
VarioDock™, from seat row  
2 and behind



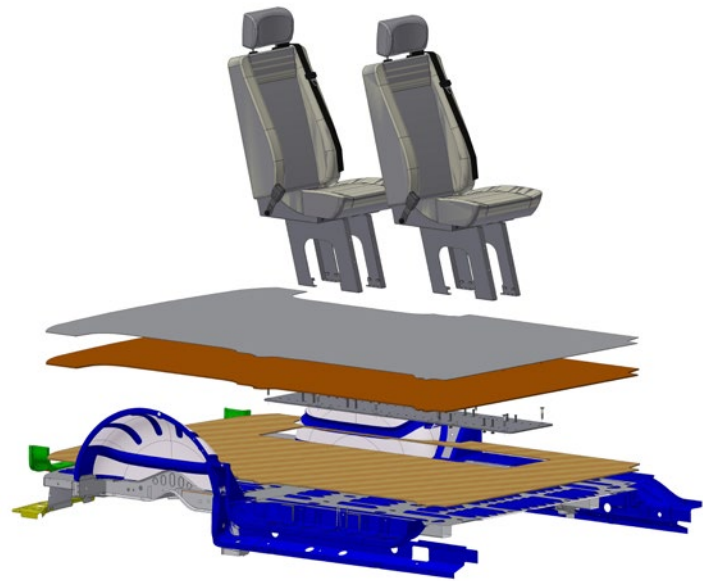
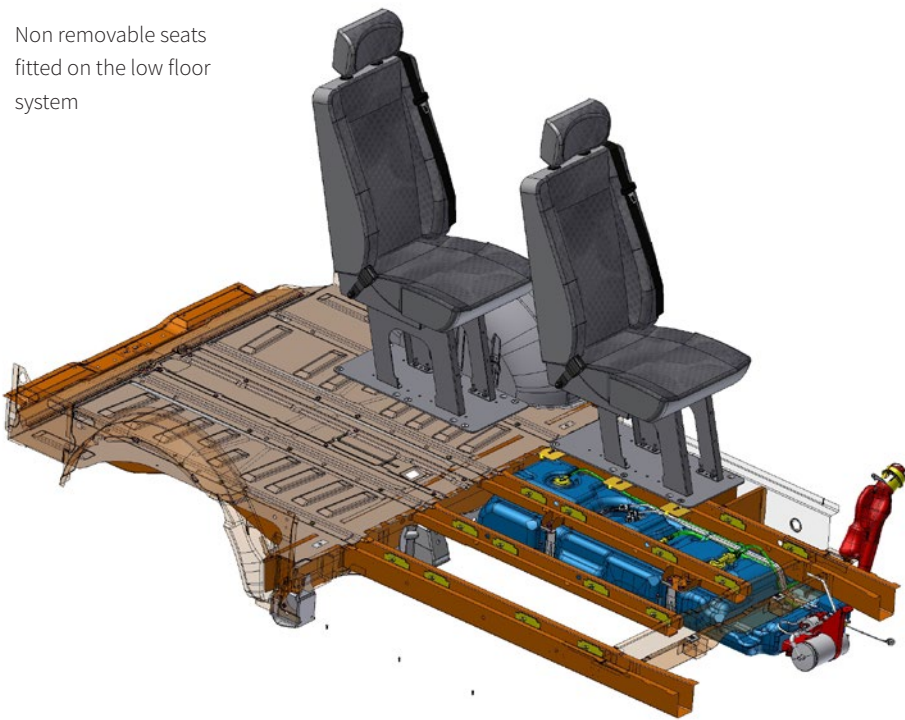
Part no. 500077  
Adjustable armrest - left





# Dahl Low Floor System

Non removable seats fitted on the low floor system



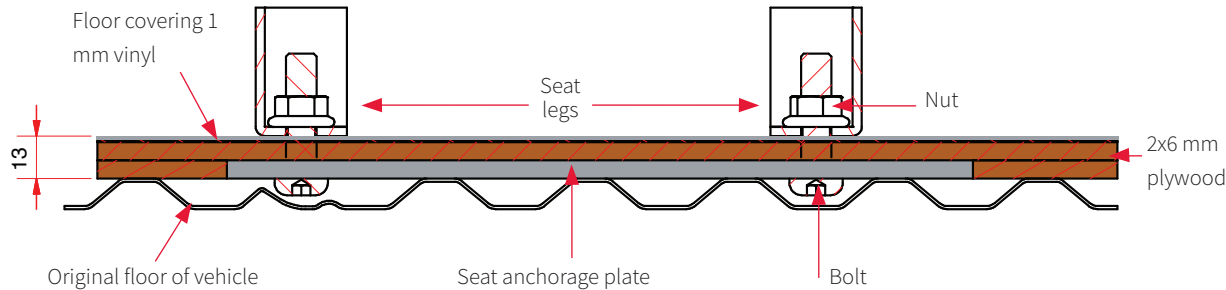
## Improved ceiling height with DAHL Low Floor System

With traditional seat installation using reinforcement profiles or an aluminum floor, approximately 4 cm of the vehicle's internal clearance height will be lost. This can present challenges, especially for wheelchair users, where ceiling height is crucial. To address this, Dahl Engineering has developed a new anchoring system that preserves maximum ceiling height.

The seats are attached to high-strength steel anchor plates, which are mounted using specially adapted reinforcement components underneath the vehicle floor. The plates are recessed into a thin plywood sheet, on top of which another plywood sheet with floor covering and pre-drilled holes is placed. The seats are bolted into these holes.

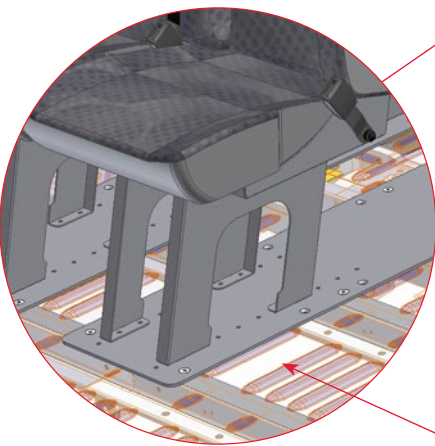
The plates have threaded holes spacing 5 cm apart, making it easy to adjust the seat positions. A drilling template with fixed positions is used for the holes in the vehicle floor, making the installation process much simpler by significantly reducing time consumption and the risk of errors – such as the need for re-welding incorrectly drilled holes.

Attachment of seats onto seat anchorage plate



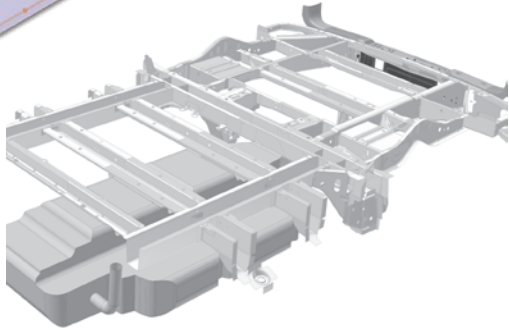
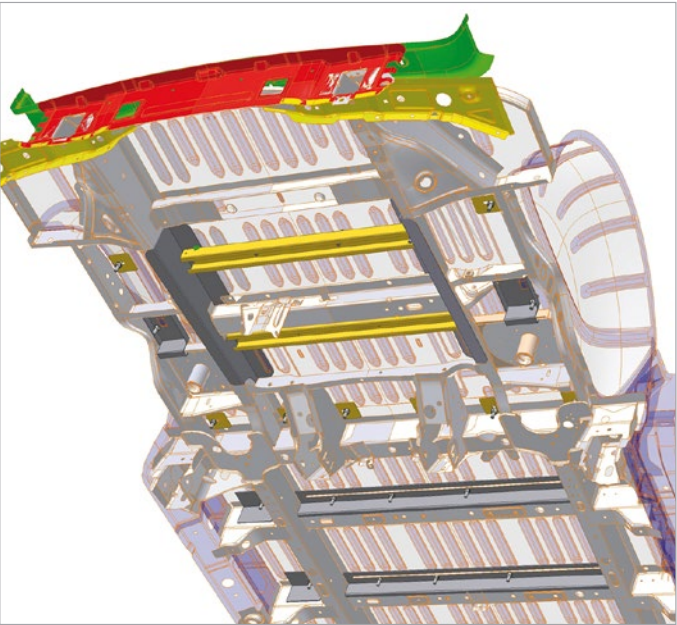
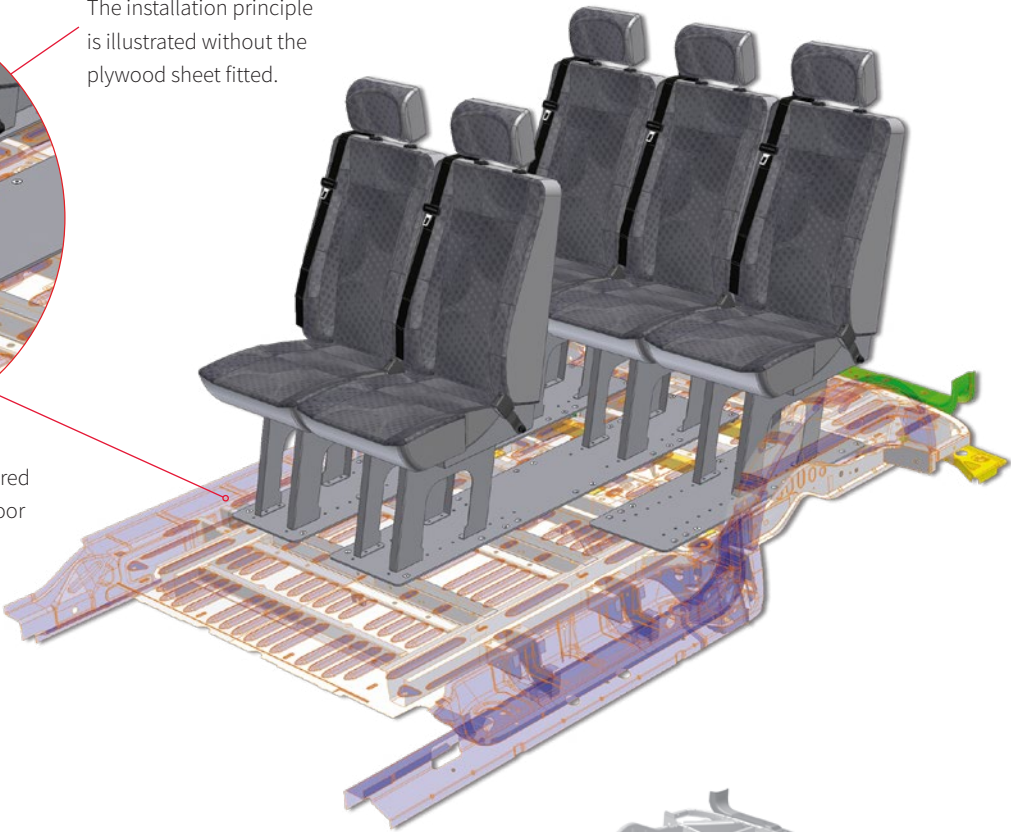
The Dahl Low Floor System can increase headroom by as much as 25-30 mm in relation to traditional aluminium floors that are installed on top of the original floor of the vehicle.

# Dahl Low Floor System



The seat anchorage plate is secured by means of bolts through the floor of the vehicle.

The installation principle is illustrated without the plywood sheet fitted.



The reinforcement components are adapted to the installation point in question – including installation carried out around the fuel tank.



Dahl Heavy duty floor rails fitted on the low floor system, to make seat removable



# 4-point wheelchair and occupant restraint systems

## 4-point retractable restraint system with automatic 3 point occupant restraint

Our automatic 3 point occupant restraint system makes it much easier and quicker to buckle up the wheelchair user, than when using traditional 3 point occupant restraints.



# 4-point wheelchair and occupant restraint systems

## EVOLUTION Line - up to 85 kg

EVOLUTION Line is a further development with focus on modern design, durability and light weight without compromising quality or robustness.

By using new and better materials, we succeeded in reducing the weight with 27 % in comparison to an equivalent Classic Line retractor, whilst matching or surpassing the Classic Line's quality parameters. This can be especially useful in vehicles, where weight is a very crucial factor.

- The retractor housing is molded in an unbreakable plastic with nice matte finish
- Breaking strength has been tested in temperatures down to -21°C
- Robust handwheel in metal on the side to tighten the straps
- Low weight
- Push-button release



## CLASSIC Line – up to 85 kg

CLASSIC Line is our first generation of tie-down retractors, which is characterized by beautiful design and high quality.

- The retractor housing is molded in metal
- Nice silver metallic surface
- Handwheel on both sides to tighten the straps
- Push-button release



# HEAVY DUTY Line – for wheelchairs up to 200 kg plus user

As electrical wheelchairs mostly weigh much more than the 85 kg, that the present regulations for tie-down equipment prescribe, Dahl Engineering has as the first in the world developed a TÜV approved Heavy Duty tiedown system with vehicle specific installation kits, that live up to and surpass EU regulation 2018/858.

These patented kits can be used for wheelchairs with a weight of 200 kg plus user.

- Tie down system with vehicle specific installation kit
- Kits tested in specific car models and mounting positions
- Dynamically crash-tested with 48 km/h as complete kit (retractor, seat belt, floor brackets, height adjusters)
- Newly developed floor brackets
- TÜV reports and documentation for all vehicle specific installation kits available
- Patented



HEAVY DUTY System for wheelchairs up to 200 kg + user

Find the correct 4-point kit for your vehicle in our compliance guide on approved products and vehicles.



EVOLUTION Line: 2x #503158, 2x #503157, 1x #PN500984



EVOLUTION Line: 2 x #503411, 2 x #503412, 1 x #PN500984



CLASSIC Line: 2x #501536, 2x #501534, 1x #PN500984



HEAVY DUTY Line 200kg. 2x #503157, 1x #502360, 1 x #502361, 1x #PN500984



EVOLUTION Line: Front tie down retractor.



EVOLUTION Line: Rear tie down retractor.



EVOLUTION Line: Front tie down retractor for rail mounted transverse



EVOLUTION Line: Rear tie down retractor for rail mounted transverse



EVOLUTION Line: Rear tie down retractor with bracket for lap belt with snap hook



CLASSIC Line: Front tie down retractor



CLASSIC Line: Rear tie down retractor



CLASSIC LINE: Front tie down retractor - for HEAVY DUTY rail across



CLASSIC Line: Rear tie down retractor - for HEAVY DUTY rail across



Spare parts: safety equipment for wheelchair users



HEAVY DUTY Line: Rear left tie down strap for 200 kg



HEAVY DUTY Line: Rear right tie down strap for 200 kg



HEAVY DUTY Line: Left rear tie down strap for 200 kg, without seat belt buckle



HEAVY DUTY Line: Right rear tie down strap for 200 kg, without seat belt buckle



3-point seat belt



90 mm <sup>[1]</sup>



193 mm <sup>[1]</sup>



300 mm <sup>[1]</sup>



450 mm <sup>[1]</sup>



450 mm <sup>[1]</sup>



6-stud rail fitting, HEAVY DUTY

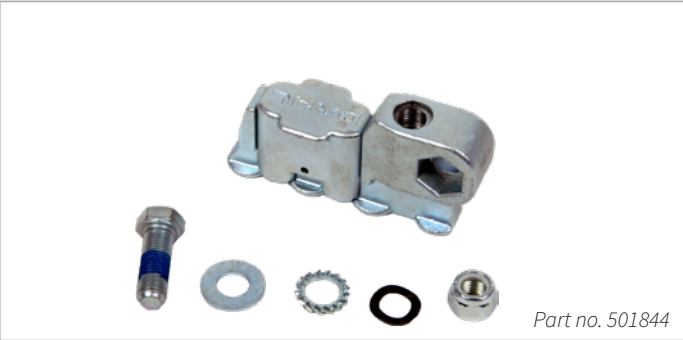
Spare parts: safety equipment for wheelchair users

Part no.	Length
503203	160 mm
503204	200 mm
503205	240 mm
503206	280 mm
503207	320 mm
503208	360 mm
503209	400 mm
503247	520 mm

Wire

Part no.	Length
500080	310 mm 70°
500098	410 mm 70°
500099	470 mm 70°

Flexible wire



Rail fitting with 7/16" UNF thread



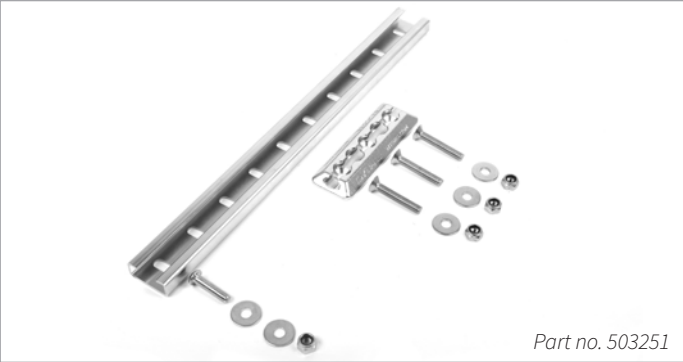
Rail fitting with 7/16" UNF thread



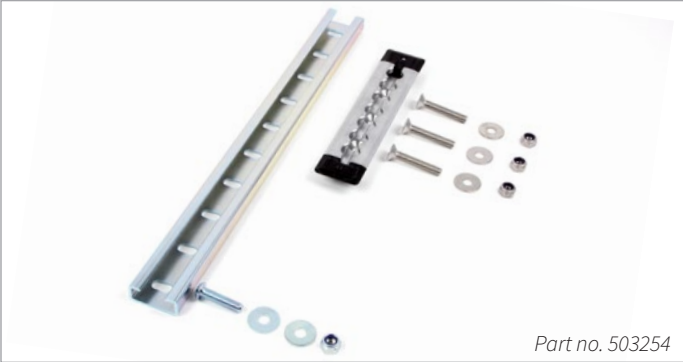
Stainless steel floor pocket with air-line hole pattern. For mounting on standard vehicle floor



Stainless steel floor pocket with air-line hole pattern. For countersinking in vehicle floor



Heavy Duty floor pocket with installation kit



Heavy Duty flush mounted floor rail with installation kit



# Seatbelt buckle release guard



Part no. PN500095  
Seatbelt buckle release guard  
with emergency belt cutter



Do you recognize the problem of kids or other persons with special cognitive needs, pushing the release button of the seat belt just as quick as you can buckle them up?

This seatbelt buckle release guard ensures that the user remains securely fastened throughout the ride.

The device prevents a person from being able to use a finger to push the release button.

Only by using a sharp pointed object such as a pen or key, one can release the seat belt by pushing the release button through a small hole in the top of the cover.

The cover fits the majority of original and approved safety belts buckles, and does not affect the safety belt's efficiency in case of a collision.



## WARNING!

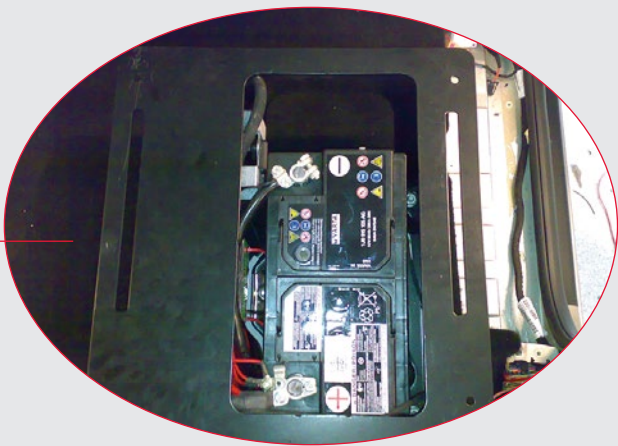
This product is only intended for securing a person with disability. Please inquire with the local authorities for approval procedures in your country.

Do not use this product without the authority's approval to use it in your country.

# Special seat bases for original passenger seats



Seat base for original passenger seat, which provides approx. 10 cm more room for the feet when turning away from the driver's seat with a swivel seat base fitted.



Within the seat base there is space for the original battery or other electrical components.

*Please enquire with regard to the current range.*



Part no. 500990  
Seat base for VW Transporter/ Caravelle T5 / T6



Part no. 502110  
Seat base for Mercedes Vito/V-Class W447

- The original passenger seat with seat slides fits the holes in the seat base.
- The seat base is certified with the safety belt buckle fitted on the original passenger seat.
- We supply a complete bolted solution which means that it is not necessary to cut, weld or drill in the floor of the vehicle in order to install the seat base.



# Cargo Tie-Down Equipment

## Retractable Tie-Down System

### The world's most convenient Tie-Down

- Permanently mounts with simple one-bolt installation or with track- or floor pocket system for higher flexibility.
- Easy one-hand operation with built-in ratchet.
- Web extends 180 cm and automatically retracts the webbing.
- 1550 kg breaking strength
- Stainless steel springs and coated steel components resist corrosion.

Part no.: 500950 – CargoBuckle



# Adapters and accessories for cargo tie-down



Bolt-on adapters offer added flexibility and mobility for CargoBuckle where permanent installation is not desired

### Angle bracket

Attach to the floor of a truck bed, or the floor or wall of a trailer or van to provide a fixed position tie-down. 30° angle bracket accommodates almost all tie-down applications.



### S-hook Adapter

Vinyl coated S-hook with built-in keeper provides a secure attachment to tie-down points in vans, trucks, trailers and more.



### Rail fittings

With rail fittings, the CargoBuckle can be moved to another position or removed entirely. The rail fitting fits floor rails with air-line hole pattern and Dahl's floor fittings. The CargoBuckle mounted with a rail fitting is designed so that it can rotate to the right and left, thereby turning in the direction of the hook's installation point.



	Part no.	Description
A	500957	S-Hook Adapter
B	501980	Angle Bracket - 30°
C	501845	Rail fitting



Stainless steel floor pocket with air-line hole pattern. For mounting on standard vehicle floor



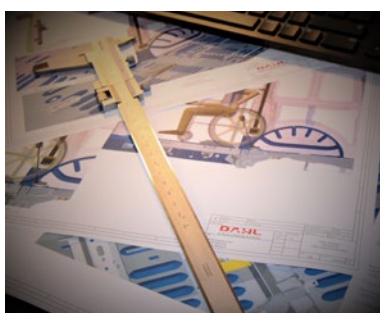
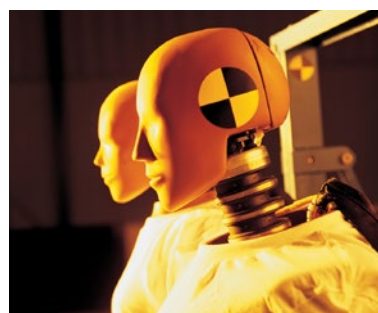
Stainless steel floor pocket with air-line hole pattern. For countersinking in vehicle floor



Dahl HEAVY DUTY floor rail



# WHERE SAFETY STARTS



Photo\*: Page. 1 - ACA France

Tilde Grafisk



Development and crash-test centre  
Where safety starts

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