



Sectional garage doors





All-in-one design

**Modern door concept – high quality – optimum performance –
extensive colour range – perfect match for all types of garage**

Attractively styled sectional doors are increasingly displacing traditional up-and-over and hinged garage doors in modern architecture and residential construction. Our sectional garage door is a modern, well-insulated and easy-to-operate concept that is available in five panel types.

Innovative design of the door components makes this door inherently safe in operation. The risk of catching fingers between parts or of the door leaf dropping down uncontrollably has been minimised.

The sectional design also creates extra usable space inside and in front of the garage, as the door opens vertically and closely follows the line of the wall and roof in this configuration.

Our sectional doors are made to measure and can be personalised to suit your exact requirements. For a perfect fit and styling that perfectly complements your home... The basic design and construction principles are based on our experience in manufacturing industrial and commercial sectional doors.

The trim profiles and tracks are accordingly robust and corrosion-resistant.

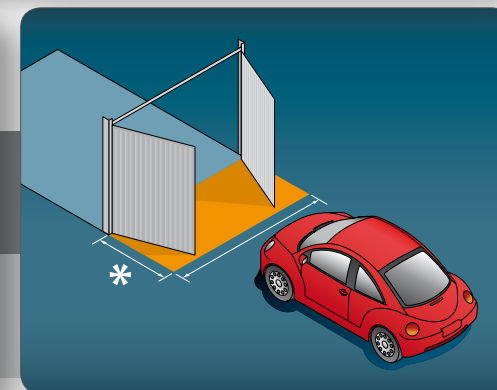
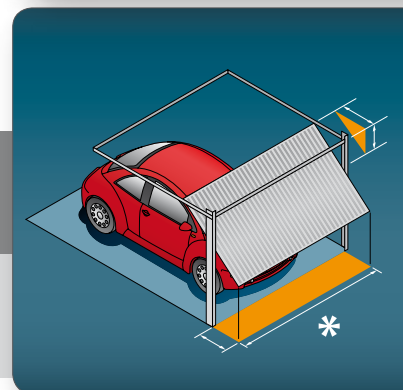
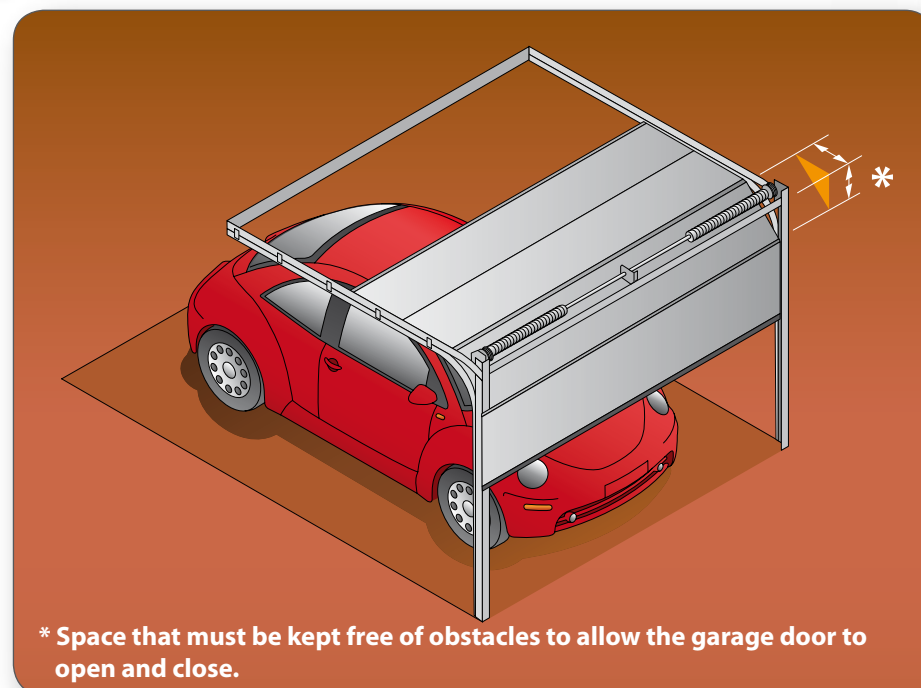
All these characteristics combine to make our sectional garage door a high-quality, hard-wearing product that not only improves the appearance of a home but also saves energy and reduces maintenance bills.

These products are made using the latest manufacturing techniques and have been certified by TÜV Nord.

This trendsetting design of garage door lends itself best to modern architectural styles. Its construction meets all current technical requirements in terms of safety standards and ease of operation.

Sectional garage doors can be operated either electrically or manually.

The sectional garage door; your garage door and the garage door of the future...



* Space that must be kept free of obstacles to allow the garage door to open and close.

Panels for all types of home

ISO and ALU garage door panels



Door leaves made up of ISO panels

In the case of ISO garage door systems, the door leaf is constructed from ISO sandwich panels. The garage door is always made to measure. The panel is cut to length to suit the width of the garage door opening. We use insulated sandwich panels supplied by ThyssenKrupp Hoesch Bausystemen to manufacture the door leaf. This panel consists of two steel outer skins that enclose a high density foam core. The CFC-free polyurethane foam core is securely glued to each of the galvanised steel skins. The visible surfaces of the steel skins are coated with a high-quality paint.

The panels are laid horizontally one above the other and attached to each other by hinges. The top and bottom faces of the panels are specially shaped to minimise the risk of catching fingers as the door leaf opens and closes.

This quality product from ThyssenKrupp Hoesch is highly weather-proof and corrosion-resistant. When developing the panel, no concessions were made in terms of the choice of materials, sheet thickness and the type and density of PU foam.

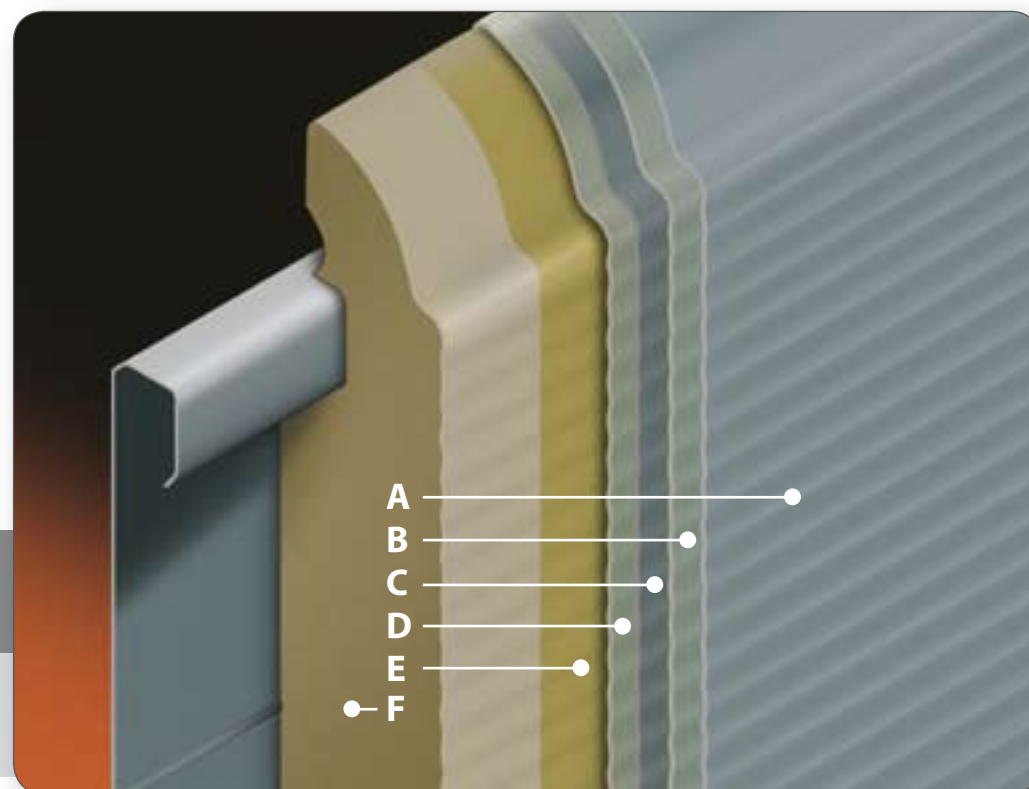


ThyssenKrupp

ISO panel "sandwich" construction

- A. Paint layer: 25 μm
 - B. Zinc coating: 275 g/m^2
 - C. Steel sheet: 0.5mm
 - D. Zinc coating: 275 g/m^2
 - E. Primer coating
 - F. PU high density foam: $\text{g}=40 \text{ kg}/\text{m}^3$,
CFC- and HCFC-free
- E. Primer coating
 - D. Zinc coating: 275 g/m^2
 - C. Steel sheet: 0.5mm
 - B. Zinc coating: 275 g/m^2
 - A. Paint layer: 25 μm

Panel thickness: 40 mm
Thermal conductivity: $\lambda=0,025 \text{ W}/\text{mK}$
Insulation value: $k=0.59 \text{ W}/\text{M}^2\text{K}$
Sound insulation: $R'w$ 26 dB
Density PU foam: ca. 40 kg/m^3



A sectional garage door with four panel styles

ISO sectional garage doors are available in four different external panel styles. The panel skin on the inside of the door is painted to RAL 9002. The panels are available in heights of 488 mm or 610 mm. Any door opening height can be catered for as the door leaf is built up using a combination of both panel heights and finished with an appropriate top profile. The top panel does not have to be cut to size. This improves the stability and strength of the top panel.



Panels with micro-rib profiling on the outer face.

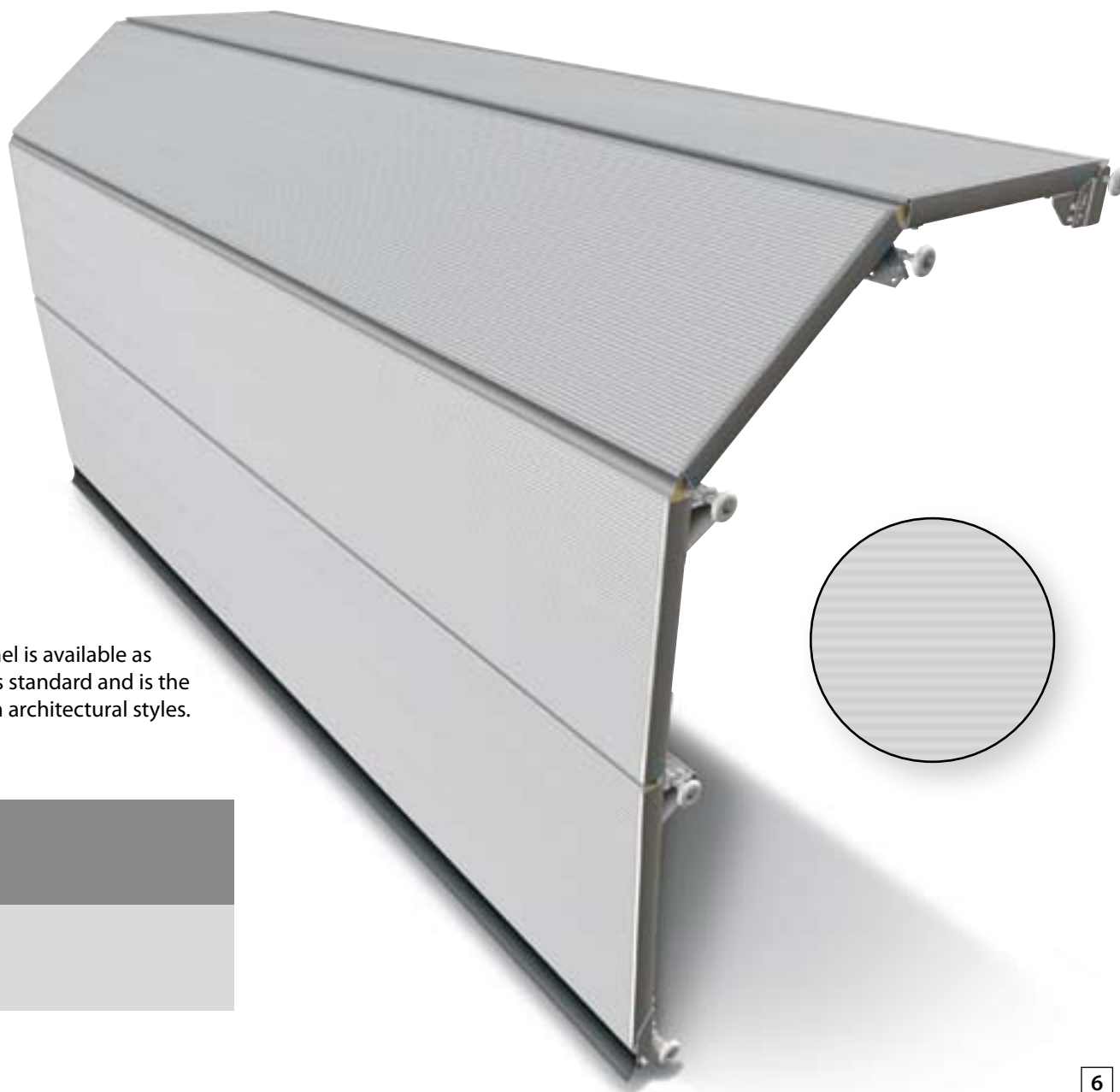
The outer skin of this type of panel features 8 mm micro-rib profiling. The microprofiling finish of the smooth outer skin creates a stylish optical effect. This style of panel is the best choice for use in ultra-modern residential designs, creating a strikingly unique appearance when fitted to built-in garages. This type of panel is less susceptible to damage. When viewed from a distance, this panel design appears to be smooth.

Panel features

- has a modern appearance.
- is a refined design.
- is exclusive and stylish.
- offers excellent thermal and sound insulation properties.
- provides good security.
- is durable.

- is easy to maintain.
- is easy to clean.

The 8mm micro-rib panel is available as standard in RAL 9016 as standard and is the ideal choice for modern architectural styles.





Panels with micro-rib profiling on the outer face.

The outer skin of this type of panel features 16 mm micro-rib profiling. The microprofiling finish of the smooth outer skin creates a stylish optical effect. This style of panel is the best choice for use in ultra-modern residential designs, creating a strikingly unique appearance when fitted to built-in garages. When viewed from a distance, the unique appearance of the micro-ribs is also clearly visible. This panel variant is exclusive to Alpha-deuren International BV.

Panel features

- has a modern appearance.
- is a refined design.
- is exclusive and stylish.
- offers excellent thermal and sound insulation properties.
- provides good security.
- is durable.
- is easy to maintain.
- is easy to clean.

The 16mm micro-rib panel is available in RAL 9002, RAL 9006, RAL 9007 and RAL 9016 as standard. This panel is an excellent choice for modern architectural designs.





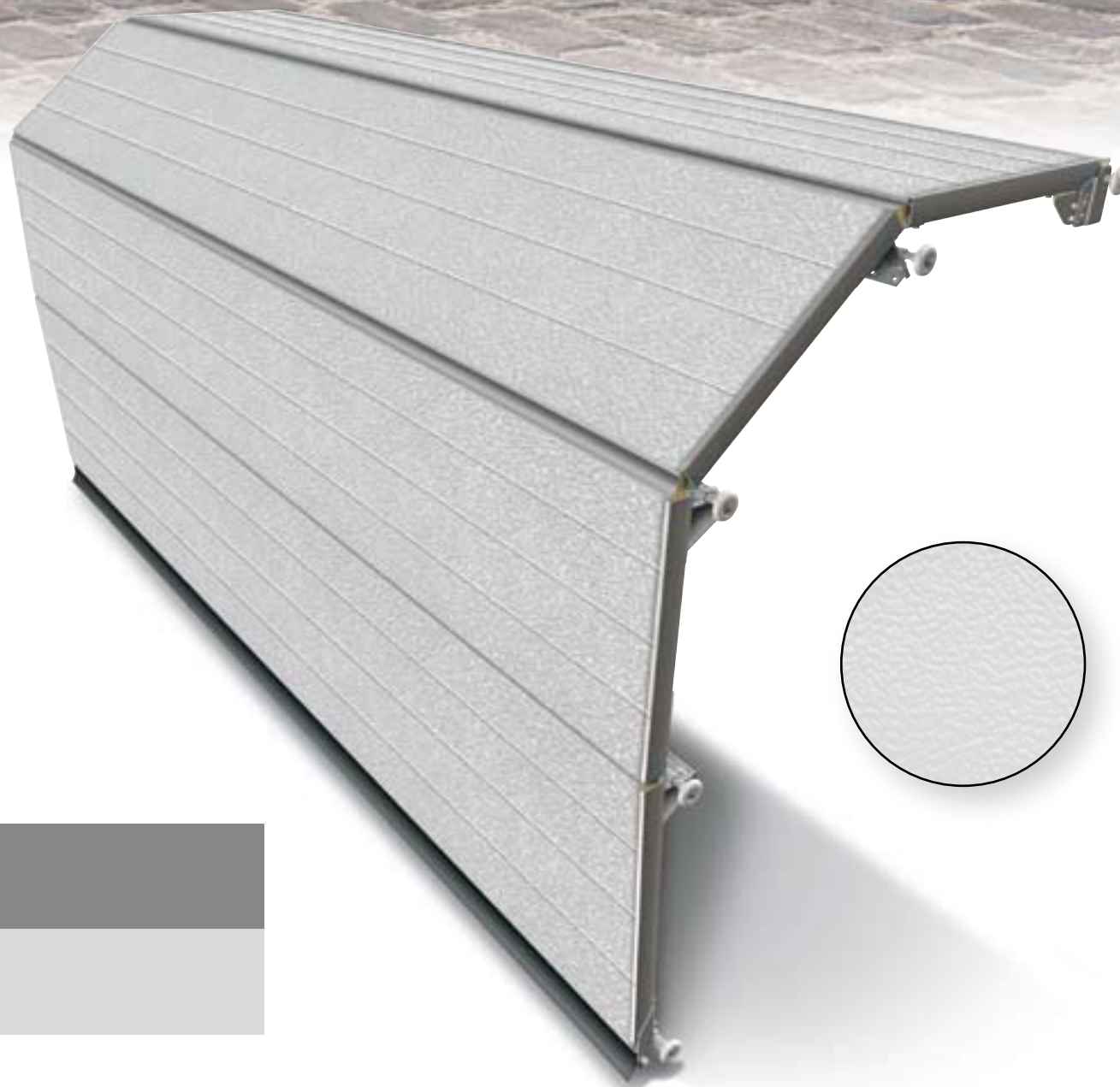
Panels with stucco embossing on the outer face.

The stucco finish panel has proved itself in many different applications. The embossed stucco finish masks dust and dirt and camouflages tiny scratches and dents. While stucco finish door leaves are eminently suitable for traditional homes, they certainly do not look out of place in a modern home.

Panel features

- is exclusive and stylish.
- offers excellent thermal and sound insulation properties.
- provides good security.
- is durable.
- is easy to maintain.

The stucco finish panel is available in RAL 9016 as standard.





Panels with a totally smooth finish on the outer face.

Totally smooth garage door panels are the ideal solution for those who prefer an elegant, minimalist appearance. The face of the building and the garage door leaf merge into a harmonious whole.

Panel features

- is exclusive and stylish.
- offers excellent thermal and sound insulation properties.
- provides good security.
- is durable.
- is easy to maintain.
- is easy to clean.

The totally flat panel is available in RAL 9016 as standard.





Door leaves made up of ALU panels

Door leaves made of ALU panels are strikingly exclusive. This type of design allows multiple different configurations. The panels are assembled using extruded aluminium profiles. Each panel is divided up into a number of partitions or fields. Customers can specify the partition width within the technical limits of the design. The resulting partition configuration is repeated for all the other panels that go to make up the door leaf.

This creates a balanced and harmonious appearance. Each partition or field is infilled with fully transparent or frosted plastic glazing or stucco panelling. The single sheet or insulated window panes are made of acrylic plastic.

This material is highly transparent and far more resistant to scratching than styrene acrylonitrile (SAN).

The benefits of our acrylic glazing are explained in greater detail in a subsequent section.

The gap between the window pane and the aluminium frame is sealed by a rubber profile with a multistrand cord core.

This construction maintains an effective seal even after years of use.

The profiles and perforated/non-perforated infill materials can however be supplied with a powder-coated acrylic paint finish. Customers can choose from an extensive range of RAL colours.



Technical details



Door leaf

Gaps between the door leaf and the door lintel can be compensated for by using top profiles of varying heights. The top profile for ISO door leaves is available in heights of 32, 62 and 92 mm. A top profile with a micro-rib finish on the external face is used in combination with micro-rib profiled door leaves. The aluminium profile on the bottom edge of the door carries the bottom rubber seal. This profile has been designed to be invisible when the door is viewed from the outside.

All the aluminium edge and trim profiles that are visible from the outside of the door are anodised and sprayed in the same colour as the door leaf. This ensures that all the elements of the door leaf have a uniform appearance. Strengthening braces are fitted to the inside of the door leaf when the width exceeds a certain value. These braces are 90 mm deep. The braces prevent the door leaf from distorting. Even when exposed to high winds.



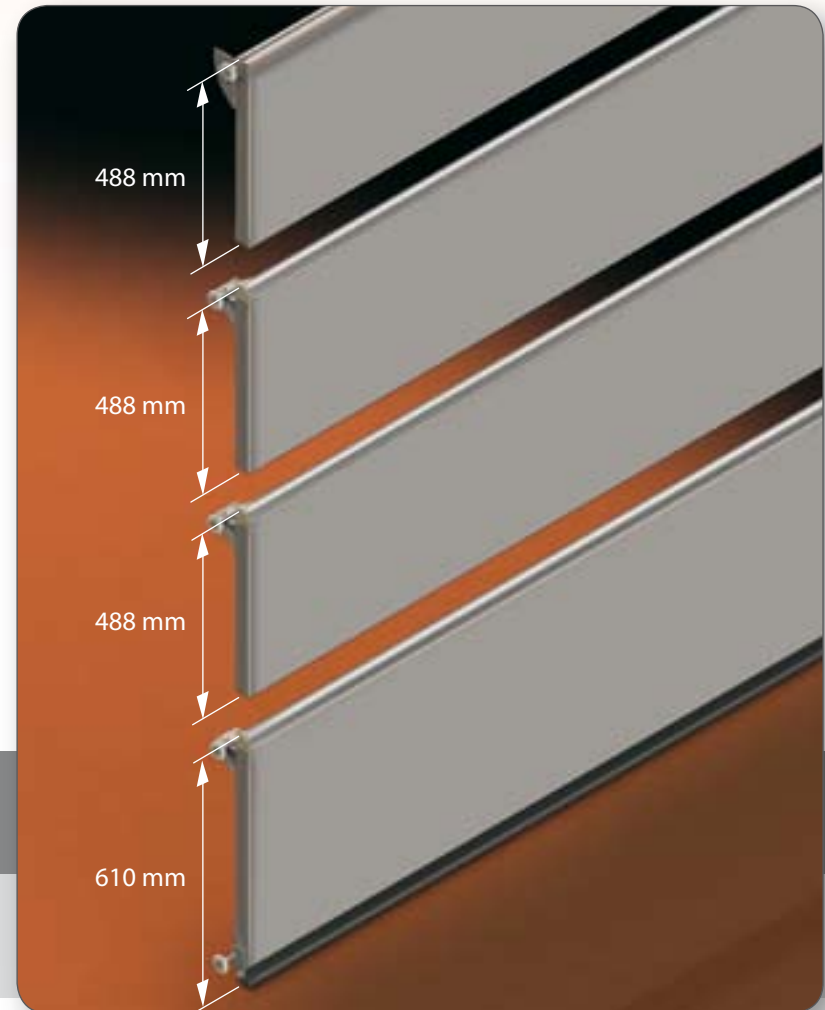
32 mm



62 mm



92 mm





Track system

The track system is unique in terms of profile, choice of materials and finish. Operator safety, durability and reliability were primary considerations when designing the track systems.

As you would expect all the materials used are galvanised to stringent standards. All the track joints use nut and bolt fixings. This speeds up installation and is easy to maintain... All the tracks are manufactured in house to our own designs. A great deal of thought has been put into the production process.

The materials used and the design of the rollers ensure precisely controlled door movements with a minimum of noise nuisance. This design of roller has proved its reliability in the arduous environments found in industrial and commercial buildings. Making it an obvious choice for use in our sectional garage doors. Design optimisation is a dynamic process that is driven by the demands of practical applications. This has resulted in a track profile shape that offers added protection against injury.

The steel cables are also guided inside the track profiles.

Two variants of the track system are available. The main difference between the two variants is the position of the torsion spring assembly.

The choice of track system depends on the amount of headroom available above the lintel. The lintel is the beam that runs across the top of the garage door opening.

If there is only limited headroom available in your garage, the low headroom variant where the torsion spring assembly is mounted at

the rear of the horizontal tracks will need to be used. Additional pulleys are provided in order to guide the wire cables correctly. In cases where there is adequate headroom above the lintel, the track system variant with the torsion spring assembly above the door leaf can be used.



Installation dimensions

Normal track lift with torsion spring above the door leaf

Unobstructed depth requirement in the garage

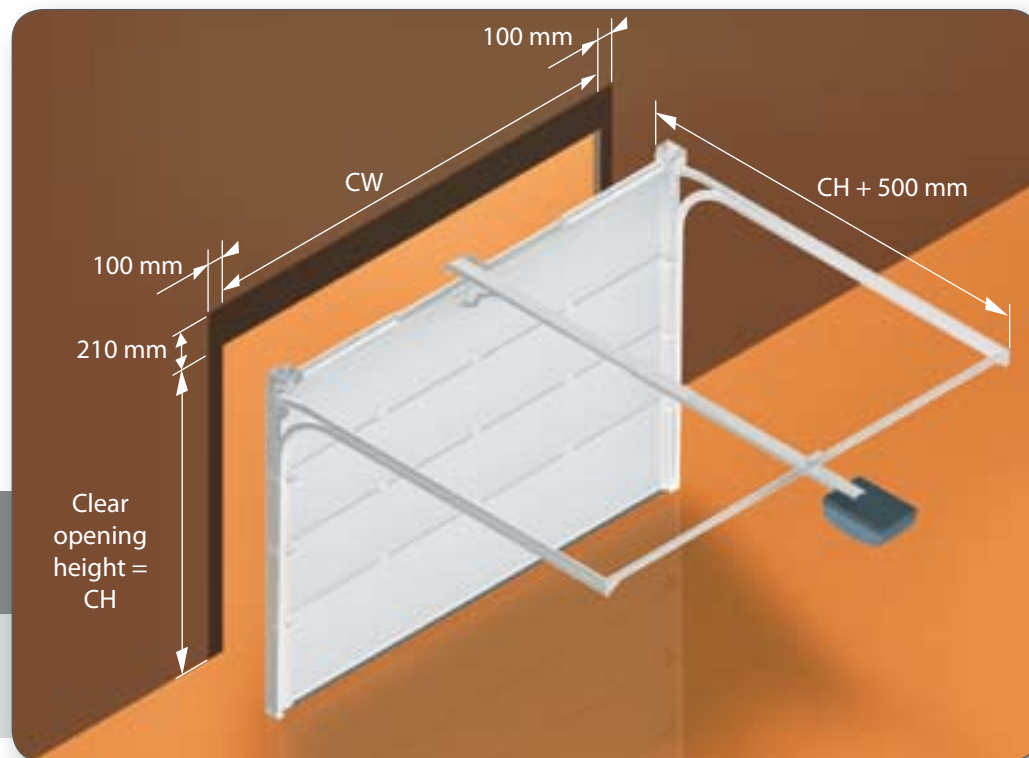
Automatic operation: Clear opening height + 500 mm.

Other dimensions

Space required above the clear passage height: 210 mm (30 mm extra when fitted with a door opener).

Clear passage height: Clear opening height - 150 mm.

Minimum internal garage width: Clear opening width + 100 mm (left and right).



Low-headroom system with the torsion spring at the back of the horizontal tracks

Unobstructed depth requirement in the garage

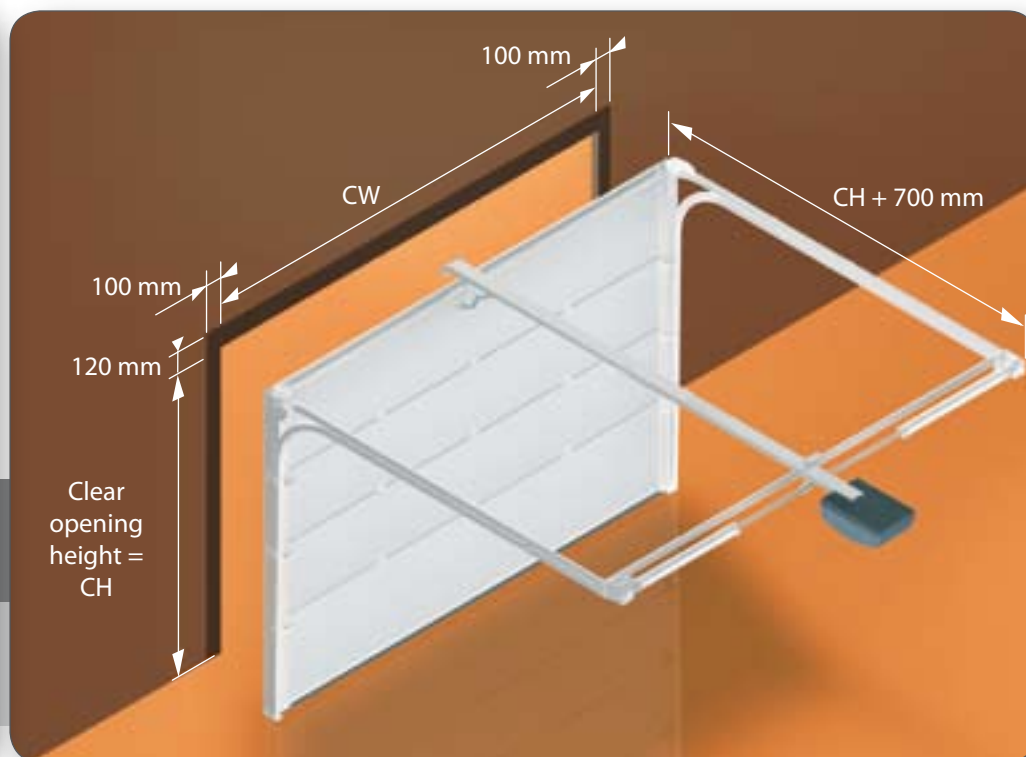
Automatic operation: Clear opening height + 700 mm.

Other dimensions

Space required above the clear passage height: 120 mm (30 mm extra when fitted with a door opener).

Clear passage height: Clear opening height - 150 mm.

Minimum internal garage width: Clear opening width + 100 mm (left and right).



Rubber seals

Energy, safety and environmental aspects play an ever greater role in today's society. The demands placed on proper sealing are becoming increasingly severe as energy concerns continue to grow.

We have developed special seals for our sectional garage doors, which offer maximum protection against the influence of unfavourable weather conditions (moisture, draughts).

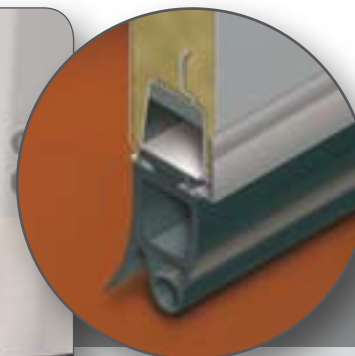
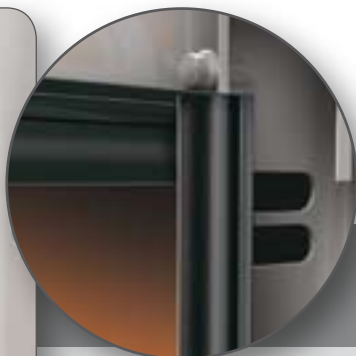
The seals contribute significantly to door insulation performance.

The outer and inner panel skins are thermally separated by a high-density foam core. This design gives the door impressive thermal insulation and sound-deadening properties. And reduces costs.

The type and shape of the materials used to seal around the periphery of the door prevent rainwater and draughts entering through the clearance gap between the door leaf and the opening support structure. The tracks are fitted with special UV-resistant rubber seals that were developed exclusively for our sectional garage door.

The materials used and the robust size and strength of all the door components make our design of sectional garage door capable of withstanding high wind loads.

All our products have been tested by TÜV Nord. If requested to do so, we can supply certificates and test reports to substantiate the door performance values we claim.



Safety & Certification

The standard for the future – fully compliant with the EN13241-1 norm

Operator safety was one of our main priorities when developing the sectional garage door. As a result, our design of sectional garage door is equipped with countless innovative features that guarantee your safety.



EN 13241-1 norm



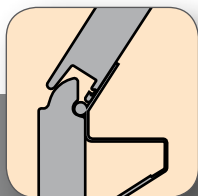
Spring break safety

The use of an “intelligent” torsion spring system minimises the effort required to open and close our sectional garage door. The door is also immobilised immediately if one of the springs breaks. This prevents the possibility of injury resulting from uncontrolled closure of the door.



Finger-pinch protection between the panels

The risk of getting your fingers trapped between the panels as the door opens and closes is negligible with our design of sectional garage door. The door panels are innovatively shaped at the top and bottom. There is almost no gap between the panels as they hinge open and closed during door movement.



With
finger-pinch
protection



Without
finger-pinch
protection

Accurately guided, low-noise door movement

The door leaf is guided by rollers that run in a precisely formed track system. The track profiles have been specially shaped to prevent the rollers from jumping the tracks. The rollers feature plastic wheels, which ensure low-noise operation. The track system is fully enclosed on three sides and specially designed to offer extra protection against injury to fingers and hands.



Effortless operation and maximum convenience

The weight compensation system balances the weight of the door throughout the opening and closing cycles. This means that the door leaf will remain in position even when only partially opened.



Wire cable integrated in the vertical tracks

The wire cables, which are part of the weight compensation system, are cleverly guided inside the vertical tracks. This construction offers extra protection against injury.



Obstacle detection when closing the sectional door

The electric drive detects a change in load when the sectional garage door hits an obstacle when closing.

The door stops immediately and the drive reverses in order to open the door again. This safety feature minimises the risk of damage to the garage door or to an obstacle in the door opening.

All our sectional garage doors are supplied with TÜV Nord certification.

As you would expect, our sectional garage doors have also been subjected to demanding endurance tests. The test doors were operated for 30,000 cycles before being evaluated by expert engineers.

Every door system we manufacture complies with the EN13241-1 norm.

Certification

Garage doors must be constructed in accordance with the EN13241-1 norm. The norm describes the legal requirements that sectional garage doors must satisfy.

Amongst other things, sectional garage doors are assessed on their;

- Resistance to wind load.
- Resistance to water ingress.
- Draught-proofing.
- Sound insulation.
- Thermal insulation.
- Safety of use.

A classification is indicated for all these criteria based on tests carried out by TÜV Nord. This makes it easier to compare equivalent products proposed by different manufacturers. Each sectional garage door is supplied with a label indicating the classifications that apply for the door concerned. One should be seriously concerned if sectional garage doors designs are unable to better a 0 classification in all the categories...



EN 13241-1 norm





Refurbishment

If you are involved in a refurbishment project, you will no doubt have decided to replace your existing garage door with a high quality sectional design. Installing a sectional garage door increases the usable parking space in front of the garage door. The amount of usable space in the garage increases as well.

Our sectional garage doors are made to measure and always fit perfectly. Structural modifications are minimal or not required at all. Wherever feasible, the component parts of the sectional garage door system are pre-assembled. This makes installing the track system a simple job. The system is suitable for all designs of garage even those where there is very little headroom available. Our sectional garage door is insulated and can significantly reduce energy losses in comparison to your existing up-and-over or hinged garage door.





Windows and glazing

High quality, highly functional efficiency and excellent insulation

Our sectional garage doors can be fitted with windows or glazed sections for extra natural light and vision, or simply for visual effect. The window variants are double-glazed and offer excellent insulation performance.

Two types of window are available. In terms of the choice of material and insulation performance, both types of window are based on our experience in manufacturing sectional doors for industrial and commercial applications.



Design

The decorative round window can be used to create unusual effects and patterns in the door leaf. The elegant stainless steel window trims enhance the designer look of the door leaf.

Specifications

Pane design:	Double pane
Pane thickness:	2 – 25 – 3 mm
Window trim:	Stainless steel
Material:	Plastic
Window frame material:	Moulded black plastic
Insulation value:	$k=2.8 \text{ W/m}^2\text{K}$
Transparency:	100 %
Transparent surface area:	0.051 m^2





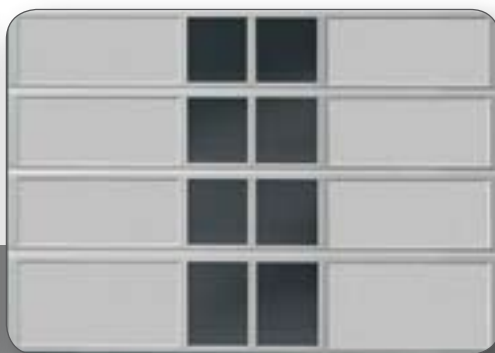
Light and vision

Durability and maximum vision unified in a modern concept. When high natural light levels or unobstructed vision are required, the ALU panel offers the best performance. No other design provides greater transparency. Optimum light and vision properties. The window material for the vision panels has been selected on the basis of durability rather than low cost. The window panes are made of two acrylic sheets with an intermediate air gap of 15 mm. The acrylic sheet material is 2.5 mm thick. Recent tests performed by TÜV Rheinland to EN 530, procedure 2, indicate that our design of acrylic window maintains

excellent transparency (classification 4*) even after repeated cleaning at a relatively high hand pressure (12 kPa). Only major sectional garage manufacturers have the resource and expertise required to produce advanced ALU panels like this.

*Classification 4: slight scratching, good transparency, no visible scratches when viewed from a distance of 1 metre or more.

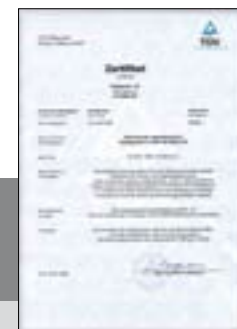
**Classification 2: significant scratching, opalescent in appearance when viewed from close quarters.



Acrylic (4*)



San (2**)



Insulated pane construction

- Pane design: Double pane
- Pane material: Acrylic
- Pane thickness: 2.5 - 15 - 2.5 / 3 - 14 - 3 mm
- Bead material: Aluminium
- Profile material: Anodised aluminium profile (E6/EV1)
- Panel height: 488 en 610 mm
- Insulation value: 3.5 W/m² K
- Transparent surface area: dependent on panel height
- Transparency: 2 x 100%





Colour range

Harmonious colours to match your home

Our sectional garage doors are available in a wide range of colours that can be chosen to match the colour scheme of your home. Alpha-deuren International BV has standardised on one or more colours for each type of door leaf.

However, the door leaf can be ordered in a different colour if required. Customers can choose from an extensive range of RAL colours.

Special colours with a mother-of-pearl or metallic finish are not available however. Dark colours are to be avoided as exposure to sunlight can lead to panel deformation and deterioration of the foam core.

The paint is applied to the panel in liquid form using a spray technique and provides extra protection for the sectional garage door.

Colour shades

The way a colour is perceived after application to the panel is dependent on the substrate and the way in which the paint layers have been applied.

Application methods vary from manufacturer to manufacturer.

This can result in shade differences within the same RAL colour.

In practice, this means that there are always colour differences between building façade elements supplied by different manufacturers, even though they have been specified to the same nominal RAL colour. It is also possible to supply the panels in special colours, even if these colours have been specified using a non-standard colour system. When colour samples are supplied, the colour is approximated as closely as possible within the RAL colour system.



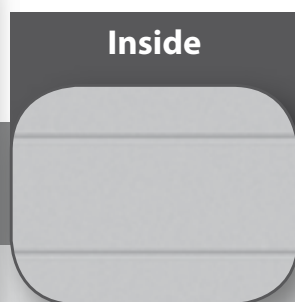
RAL 9016



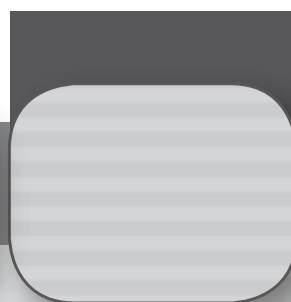
RAL 9016



RAL 9016



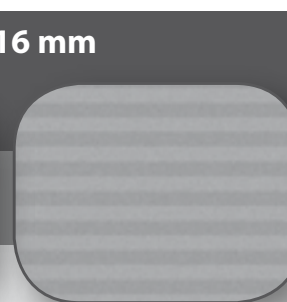
RAL 9002



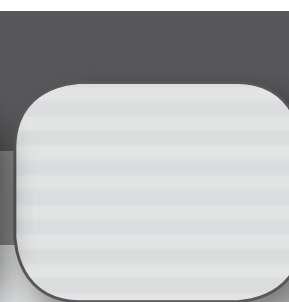
RAL 9002



RAL 9006



RAL 9007



RAL 9016



Drive

An electric drive is the ultimate in user convenience. All kinds of remote control or automatic opening systems are available. The electric drive acts on a toothed belt, which opens and closes the door without any effort on the part of the user.

The drive system has been developed to open and close the door at a satisfactory speed. The electric motor is fastened to the ceiling or a bracket centrally between the two horizontal tracks.

You can drive in and out of the garage without problems.

The door and drive are matched to each other as a complete system and supplied with a declaration of conformity (CE mark). Each of our sectional garage door systems satisfies the requirements of the EN13241-1 door product norm.



Operation

Remote control

Your sectional garage door opens and closes automatically at a single press of a button. You will never again have to get out of the car in the rain to open your garage door. The electrically driven garage door is operated using a wireless device. You simply press a button on the remote control in your vehicle to open or close the door.



Keypad with personal code

You open and close your garage door by entering your personal code. The stainless steel keypad with illuminated keys is mounted in a waterproof plastic housing, which can be attached conveniently to a wall.



Key switch

You can of course choose to operate your sectional door using a key. Simply turning the key to the left or the right initiates the opening or closing movement. The lock cylinder is mounted in a waterproof stainless steel housing, which can be attached conveniently to a wall.





A product of ALPHA Deuren International BV