



SECTIONAL GARAGE DOORS & ENTRANCE GARAGE DOORS



- ✓ ALL DOORS ARE DESIGNED FOR USE IN ALL WEATHER CONDITIONS
- ✓ ALL DOORS MEET THE HIGHEST QUALITY STANDARDS



The following products are a series of sectional garage doors manufactured by DoorHan.



DoorHan



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DoorHan sectional garage doors are a modern solution for small and medium-sized garage openings. They have minimal space requirements, long service life and they are easy and safe to use.

RSD01 SECTIONAL GARAGE DOOR



The RSD01 series sectional garage doors have a simple and unique balancing system based on a tension spring mechanism.

RSD02 SECTIONAL GARAGE DOOR



The RSD02 series sectional garage door is a classical garage door designed for the most widely used garage sizes. The doors are available with a wide range of lift types and can be adapted to any existing structure.

5

MAIN BENEFITS



1

ENERGY-SAVING DOORS

Objective testing carried out by the Research Institute for Building Physics (Moscow, Russia) showed that DoorHan doors have the highest energy-saving characteristics. Our doors keep the weather out and reduce energy consumption costs.

2

SPEED OF MANUFACTURE AND DELIVERY

Our extensive production and warehouse network and expertly built logistic activities allow us to deliver products in the fastest possible time.

3

YOUR INDIVIDUALITY

DoorHan offers a variety of garage door designs to suit the tastes and styles of all homeowners. Our rich choice of colors and options allow you to create your own unique garage door.

4

RELIABILITY AND DURABILITY

DoorHan doors are designed to be used in various climatic conditions and seasonal temperature changes. They are constructed from special sandwich panels and weather seals that effectively maintain the indoor climate. DoorHan doors operate trouble-free in any weather and do not freeze in winter.

5

CONVENIENCE AND COMFORT

For those who prefer comfort, DoorHan offers electrically-operated doors. The specially designed electric operators function within a wide temperature range (from -20°C to $+55^{\circ}\text{C}$). You can open and close your garage door without leaving your car – just push the remote control button.



02

Care of You

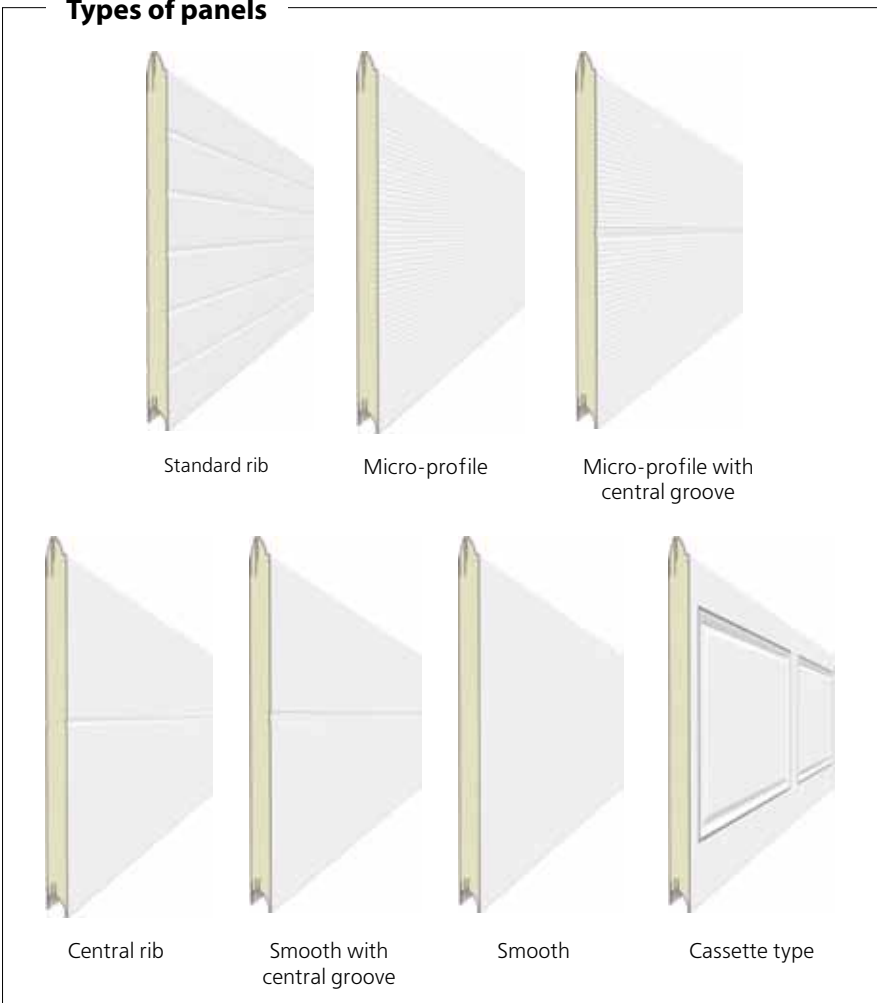


RSD01 sectional garage doors are designed for installation into small garage openings. A balancing mechanism with built in extension springs provides balancing to the door leaf. Their key advantages – easy and fast installation (about 2 hours) and minimal requirements to opening parameters (minimal headroom – 100 mm, minimal sideroom – 120 mm).

Dimensions:

width – from 2 000 mm to 3 000 mm;
height – from 1 800 mm to 2 700 mm.

Types of panels



Types of surfaces



Smooth surface



Stucco surface



Wood grain surface

Standard wood grain colors



Mahogany



Dark oak



Green oak



Wenge



Golden oak

Standard RAL colors



RAL 9010
pure white



RAL 8014
sepia brown



RAL 5005
signal blue



RAL 6005
moss green



RAL 3000
flame red



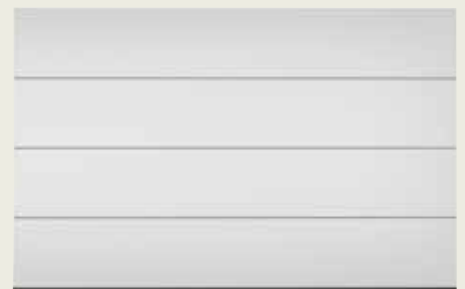
RAL 9006
white aluminium



RAL 7016
anthracite grey



Panels can be painted in any color you desire from the International RAL Color Chart. Color swatches printed on this page may not accurately display the original colors. Please use the original RAL Color Chart. Publication for the most accurate color.



GARAGE DOOR + ENTRANCE DOOR = A SINGLE ARCHITECTURAL SOLUTION FOR YOUR HOME



03

Feeling Your Rhythm

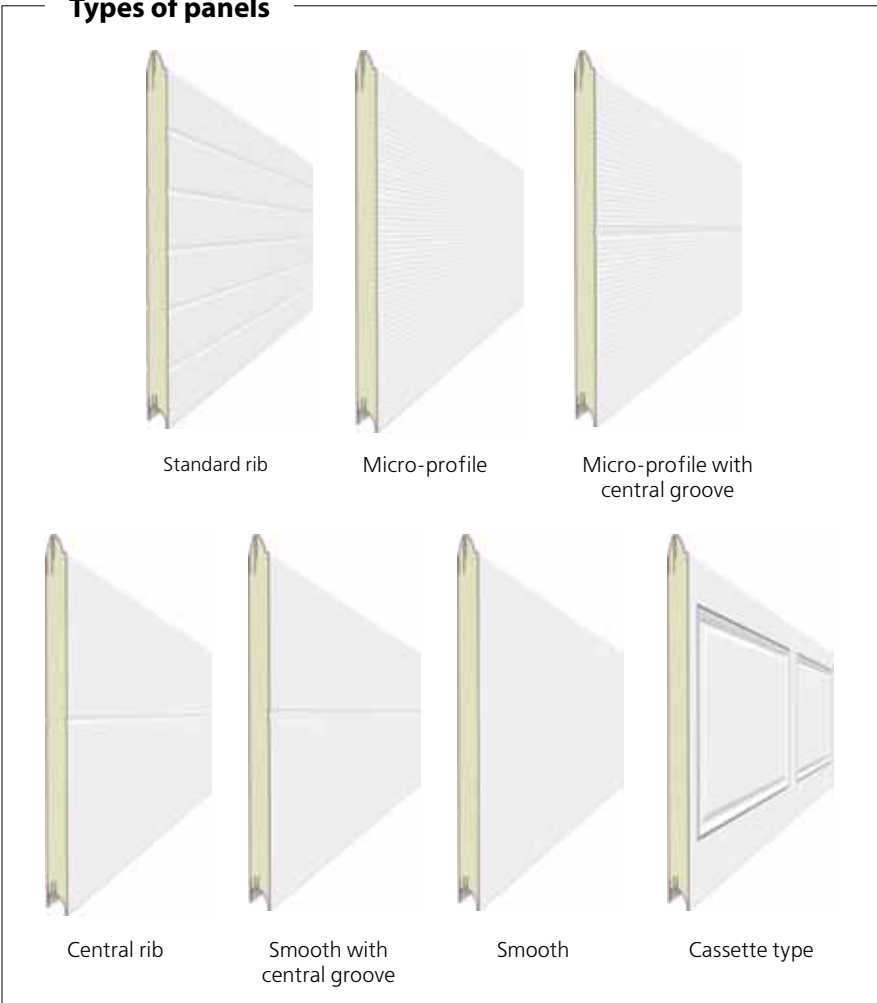


RSD02 sectional garage doors are designed for small and medium openings. The doors are available with a wide choice of the most commonly used door lift types suitable for any conditions. The variety of lift options means the doors can be installed in garages with almost any internal space geometry.

Dimensions:

width – from 2 000 to 5 000 mm;
height – from 1 800 to 3 000 mm.

Types of panels



Types of surfaces



Smooth surface

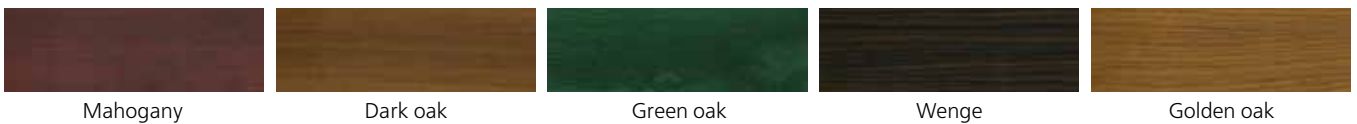


Stucco surface

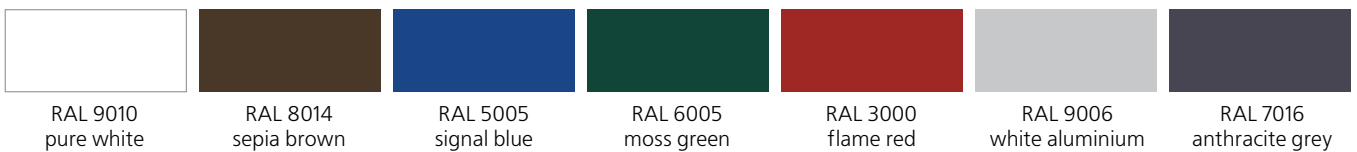


Wood grain surface

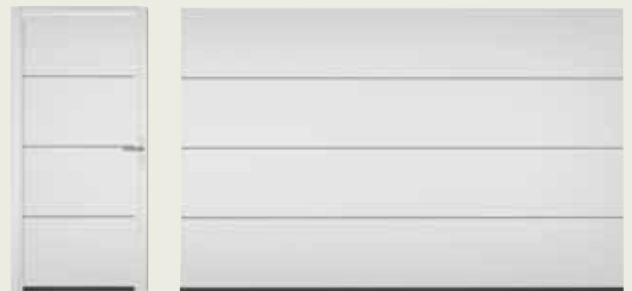
Standard wood grain colors



Standard RAL colors



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GARAGE DOOR + ENTRANCE DOOR = A SINGLE ARCHITECTURAL SOLUTION FOR YOUR HOME

04



Convenient Way Out

A pass door with a threshold for RSD02 doors is a functional solution to allow access to the premises when the door is closed. With its improved design and a specially developed aluminium profile system, the pass door is highly reliable and durable. Minimal height of the pass door threshold makes it easy and convenient to use the door. A double perimeter seal system provides weatherproof and thermal insulation. DoorHan manufactures two types of pass doors with different dimensions satisfying different installation requirements.

Modernized pass door dimensions:

width – 800 mm;
height – from 1 700 to 2 000 mm;
threshold height – from 75 to 100 mm;
Side distances from the pass door to door leaf edges must be bigger than 1 000 mm.

V3 pass door dimensions:

width – 900 mm;
height – from 1 700 to 2 000 mm;
threshold height – from 70 to 100 mm;
Side distances from the pass door to door leaf edges must be bigger than 400 mm.



Door closer



Mechanical lock with handle



A standard built-in pass door package includes a door closer on sliding bar and a reliable mechanical lock with handle.

Windows

DoorHan windows with shockproof glass provide natural lighting for a garage. Windows are available with cross or diamond-shaped metallic casement in gold.



Square window frame colors



Signal white



Sepia brown



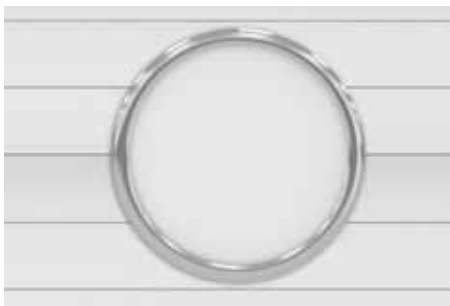
Dark oak



Signal black



Golden oak



Round window frame color



Silver

05

Crossbar locks

The crossbar lock provides reliable security to the closed door and makes it difficult for burglars to gain access. Operated from both sides. Made of high quality steel.

**Handles**

All DoorHan sectional doors are equipped with special handles that makes it easier to open the doors.





06

Focusing on Your Comfort

The garage doors are much easier to operate with Sectional Series operators. You can open or close the garage door without leaving your car using the remote control unit. The operators have a stylish design and will match any garage interior. There is a lamp built into the operator that turns on when the door opens.

- In the event of power outage you can open the door manually using the release system.
- The operator stops automatically if there is any obstruction in the photocell activation zone.
- The self-locking operator prevents unauthorized opening of the door.
- An alarm sounds if the door is open for more than 10 minutes. The alarm switches off automatically after the door closes.
- DoorHan operators feature a programmable delay function.

Operators

The sectional operators were designed for the automation of residential sectional doors with moderate frequency of use. The operators are easily connected to the rail and mounted on the ceiling. They have a built-in receiver, which allows you to control the device remotely; and a built-in lamp for garage lighting, which is automatically switched on when the operator is activated.



SE-500



SE-750/1200/FAST-750

Model	SE-500 (RSD01, RSD02)	SE-750 (RSD02)	FAST-750 (RSD02)	SE-1200 (RSD02)
Supply voltage, V/Hz	230/50			
Max. consumed power, W	100	150	150	300
Force, N	500	750	750	1200
Speed of doors, m/s	0,14	0,1	0,1-0,18	0,1
Protection class	IP20			
Intensity, %	50			
Operating temperature range, °C	from -20 to +55			
Max. doorway height, mm	2 600	2 800	2 800	3 800
Max. leaf surface, m ²	8	10	10	16

Remote controls



DoorHan remote controls are designed to operate DoorHan automatic equipment or any other device connected to a DoorHan radio receiver. You can control up to four different operators with one remote control.

Release



The release device allows the door to be operated manually in the event of a power outage.

Photocells

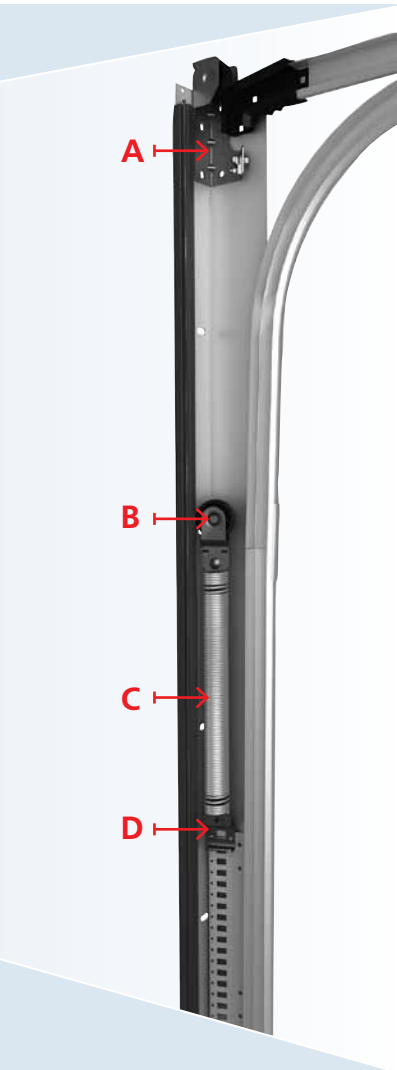


The photocells are mounted into the garage opening to stop the door if an obstruction is detected in the activation zone.

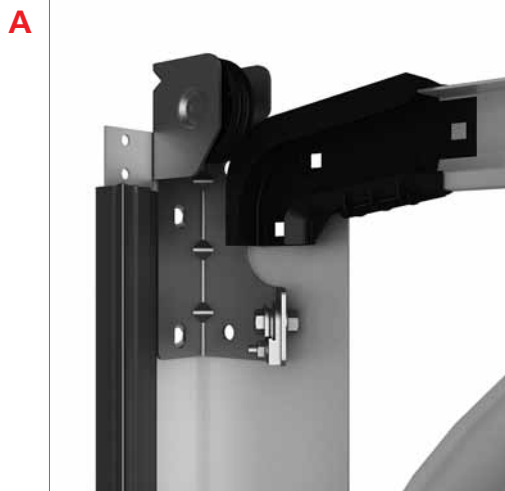


07

- | | |
|--|---------------------------------------|
| 1. Door leaf | 11. C-profile |
| 2. Girder | 12. Side supports with roller holders |
| 3. Top seal | 13. Lock |
| 4. Pulley bracket | 14. Extension spring mechanism |
| 5. Vertical angle | 15. End cap |
| 6. Vertical track | 16. Tensioner |
| 7. Bottom corner bracket | 17. Hinge |
| 8. Aluminium top profile | 18. Bottom seal |
| 9. Top support | 19. Aluminium bottom profile |
| 10. Mounting bracket for horizontal track mounting | 20. Handle |



Curved section



The curve of the horizontal track ensures reliable fixation of the door leaf top section in the vertical position.

Double cable



The use of two cables on each side of the gate prevents the leaf from falling; if one cable breaks, the other acts as a backup.

Spring-in-spring system

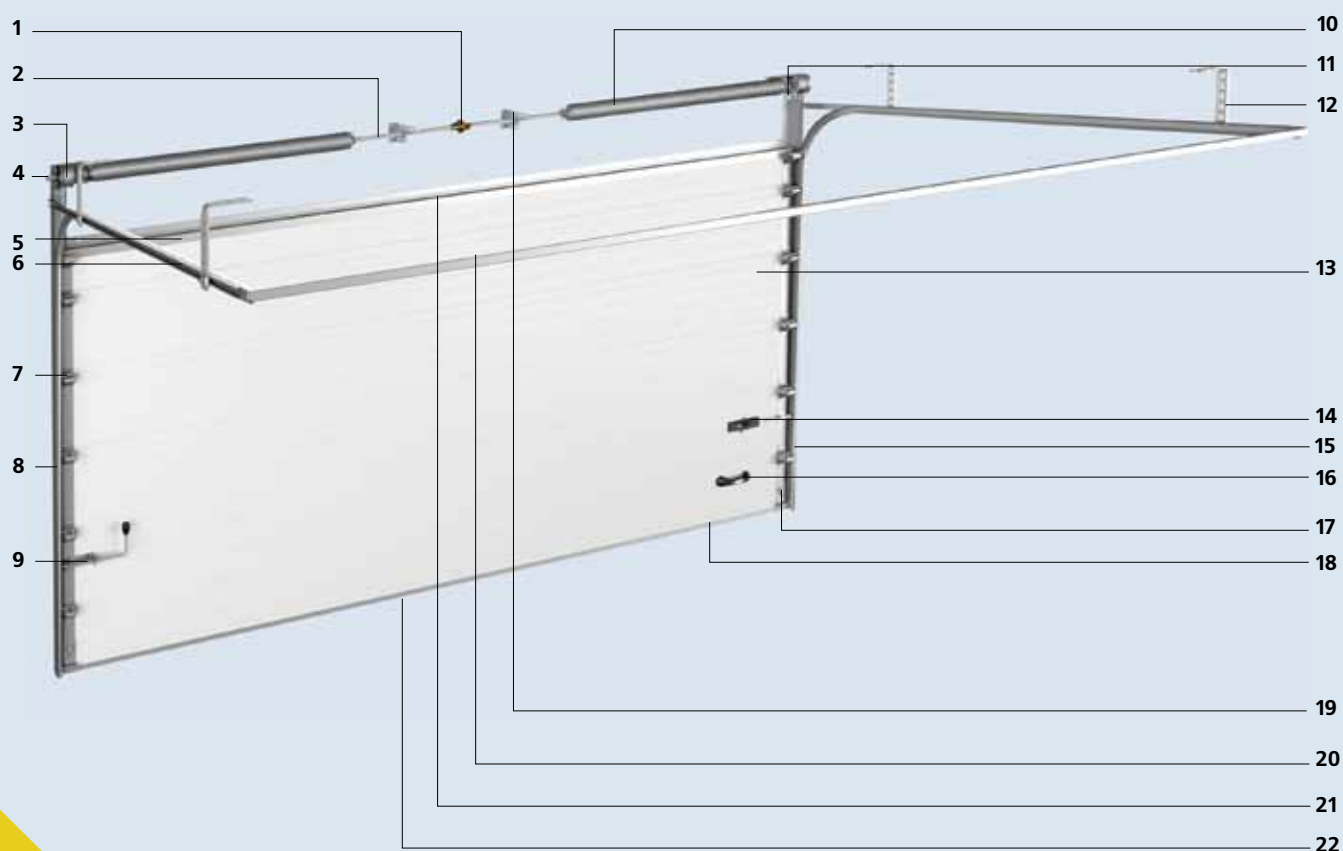


The spring-in-spring system in the door-leaf balancing mechanism ensures maximum door operation safety. If one spring breaks, the second spring will hold the door opener and prevent it from falling. A special "alligator-like" mechanism ensures the secure fixture of the springs.

Spring fixation system

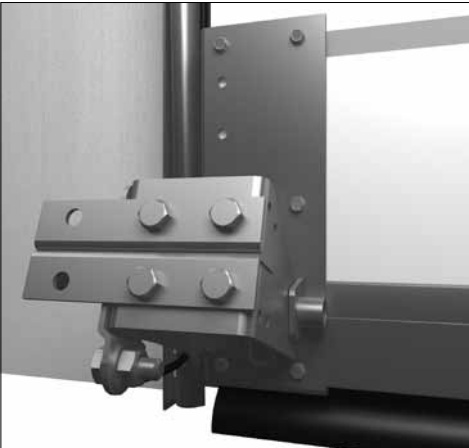


Springs can be fixed in a matter of seconds thanks to the unique torsion spring quick fixation system. The system allows easy and smooth adjustment of spring tension for an accurately balanced door.



08

- | | |
|--------------------------------------|--|
| 1. Coupler | 12. Mounting brackets |
| 2. Shaft | 13. Sandwich panels |
| 3. Drum | 14. Lock |
| 4. End support bracket | 15. Side cap |
| 5. Aluminium top profile | 16. Handle |
| 6. Horizontal track | 17. Bottom bracket |
| 7. Side support bracket with rollers | 18. Aluminium bottom profile |
| 8. Vertical angle | 19. Multi-purpose inside support bracket |
| 9. Latch | 20. C-profile |
| 10. Torsion springs | 21. Top seal |
| 11. Spring safety device | 22. Bottom seal |

Cable break protection device

The cable break protection device with protective housing is mounted on the leaf as a bottom bracket. It stops the door leaf from falling by fixing itself to the track in the event of a cable failure.

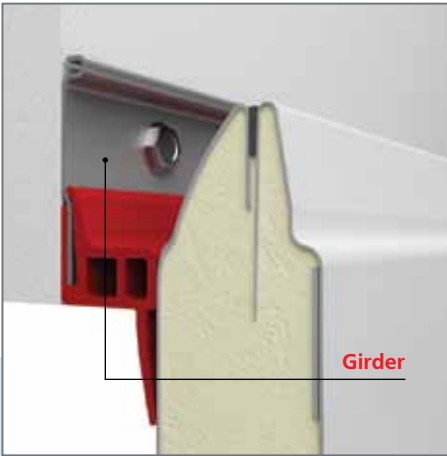
Spring safety device

The spring safety device disables the shaft and prevents the sectional door leaf from falling.

Cable safety device

The cable safety device blocks the door leaf by hooking itself onto the strip mounted on the vertical angle of the door in the event of a cable break or an unauthorized attempt to open the door.

New girder



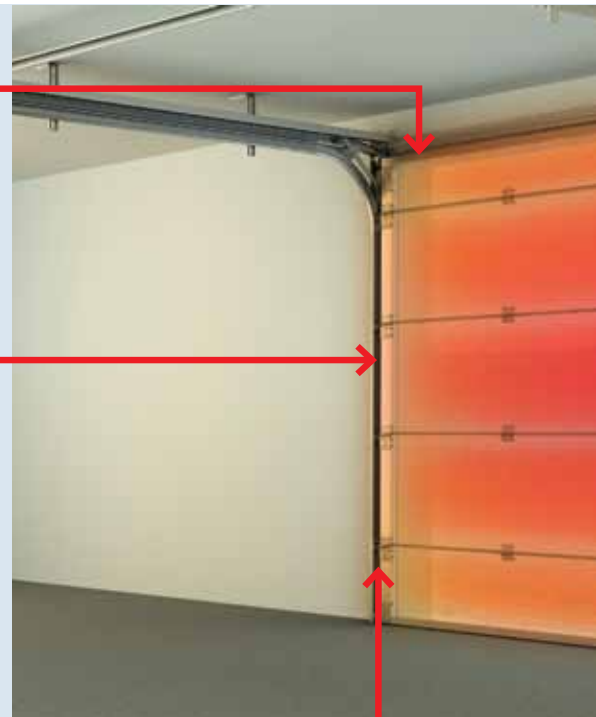
- A new girder designed for the hermetic sealing of the doors is comprised of an aluminium profile and a special seal of increased thickness that prevents doors from freezing at joints between the door leaf and the wall.
- The design of the new girder allows the distance of the vertical support to be changed within the range of ± 30 mm.

New side sealing

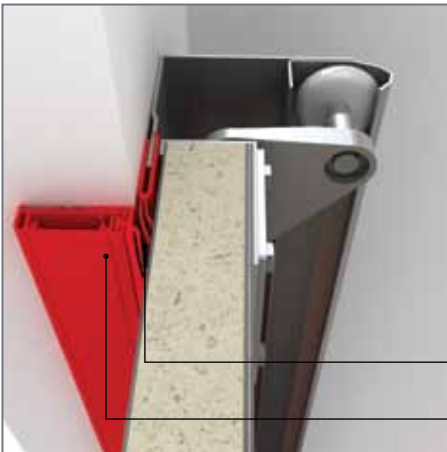


Side sealing of garage doors

- The frost-proof seal has an extended surface that shields the opening as well as a reliable fixture to the vertical angles.



External sealing boundary



Air chamber

External perimeter seal

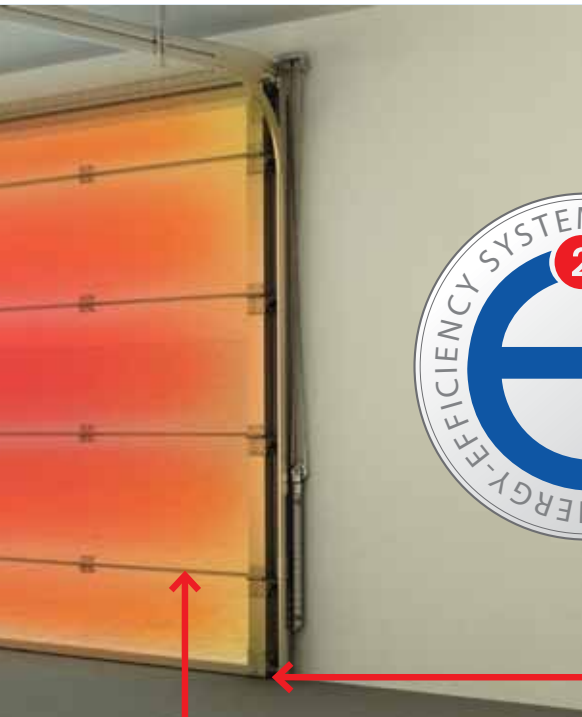
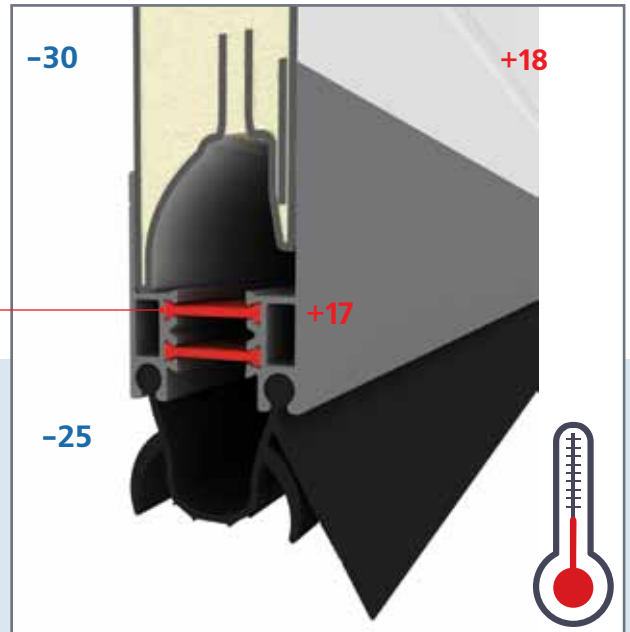
- The external perimeter seal provides the tightest fit of door leaf to seal.
- The air chamber between the seals provides better heat insulation.

09

Heat-proof bottom profile

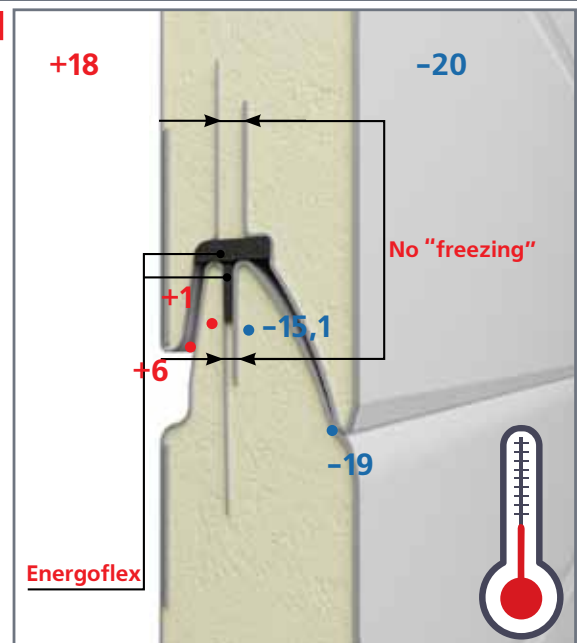
- No heat loss with T-ridge heat-resistant bottom profile.

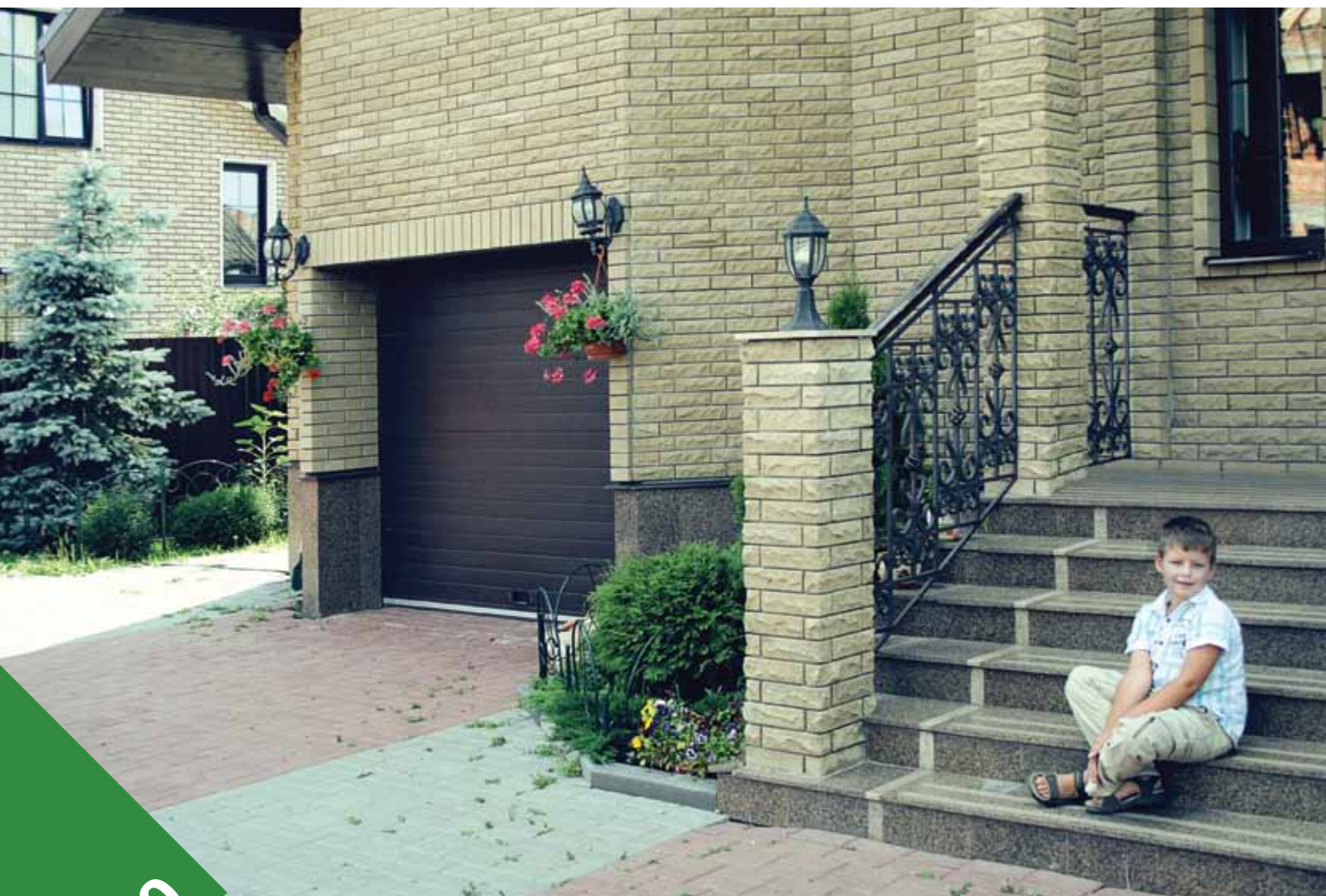
T-Bridge profile



No "freezing"

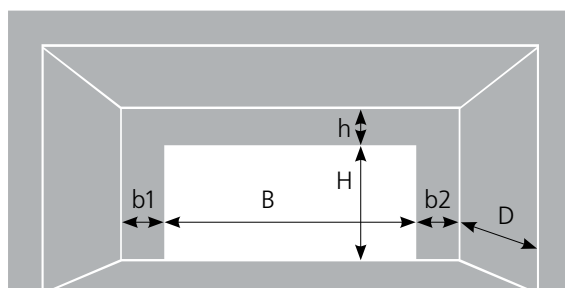
- Freezing does not occur in DoorHan sandwich panels between the outside and inside steel sheets. That makes the door thermal-resistant and prevents freezing of panels in joints.
- Energoflex is a non-hygroscopic material used to ensure the tightness of the panels' joints.





10

OPENING DIMENSIONS



H – height (distance between floor and opening top)

B – width (distance between left and right edges of the opening)

h – headroom (distance from opening top to ceiling) – minimum 150 mm for low lift, rear mounted drum; minimum 100 mm for RSD01 doors

b1 and **b2** – sideroom (distances from opening edge to side interior walls) – minimum 130 mm for RSD02 doors; minimum 120 mm for RSD01 doors

D – backroom (distance from opening to interior garage wall) – more than $H + 500$ mm.

RSD01, RSD02 DOOR SPECIFICATIONS

Specifications*

R-value	1.13 m ² ·°C/W (GOST 31174-2003)
Wind load	2 class (EN12424:2000)
Airtightness	4 class (EN12426:2000)
Watertightness	3 class (EN12425:2000)
Acoustic insulation	24 dB
Lifting force	up to 22.5 kg

* For a 4 000 × 4 000 mm door

STANDARD AND OPTIONAL COMPONENTS FOR RSD01 DOOR

Standard components:

- extension spring mechanism designed for up to 15,000 cycles
- system of tracks
- leaf
- handle
- latch
- technical documents

Optional components:

- lock
- windows
- external sealing
- frost-resistant bottom and top profiles

STANDARD AND OPTIONAL COMPONENTS FOR RSD02 DOOR

Standard components:

- torsion spring mechanism (up to 25,000 cycles)
- system of tracks
- door leaf
- bottom brackets with the mechanism of cord torsion and leaf pressure regulation
- handle
- latch
- spring safety device
- technical documents

Optional components:

- lock
- windows
- external sealing
- frost-resistant bottom and top profiles

PACKAGING

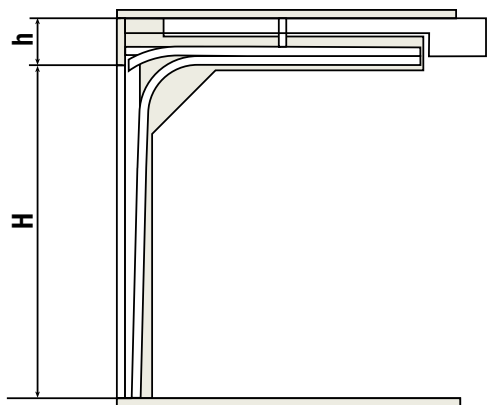
Foam plastic packaging of the door panels provides complete protection during long periods of transport. Panels are covered with protective stretch film to prevent scratching during installation.

Guide profiles and hardware are packed into cartons and wrapped in polyethylene film.

LIFT TYPES

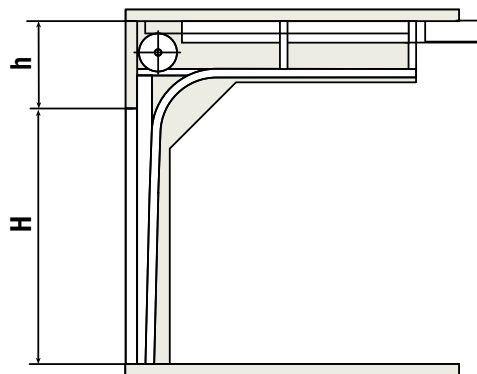
Low lift for RSD01 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$h = 100$



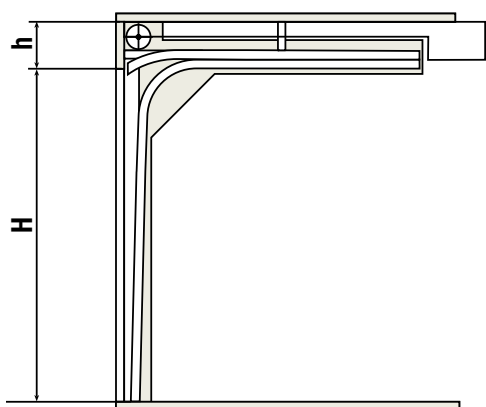
Standard lift for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	R381; $h \geq 410$ R305; $h \geq 350$



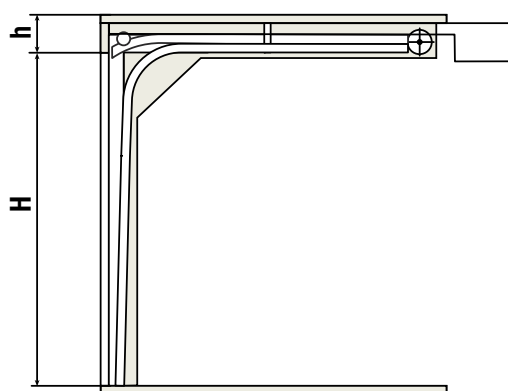
Low lift, front drum for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$h \geq 230$



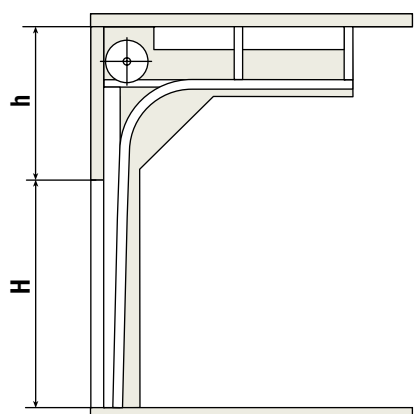
Low lift, rear drum for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	Without ceiling operator – 150, with ceiling operator – 200



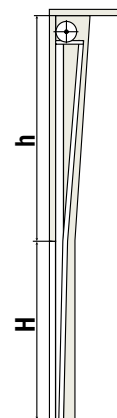
High lift for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$h > 600$



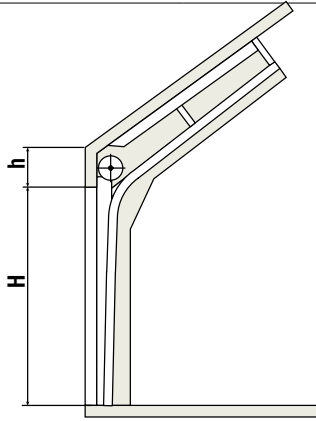
Vertical lift for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$> H + 580$



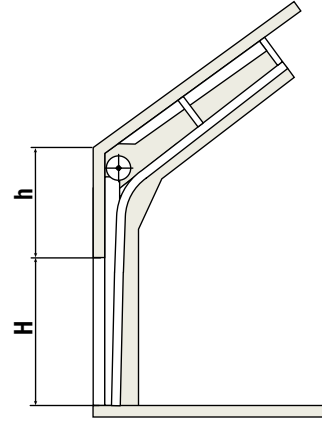
Standard inclined lift for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	from 500 to 1500 (depends on α°)



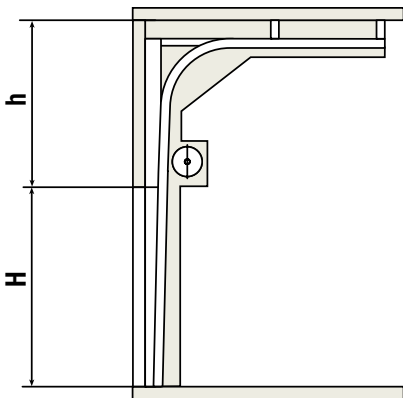
High inclined lift for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$H \cdot L^* + (20 + 1260)$



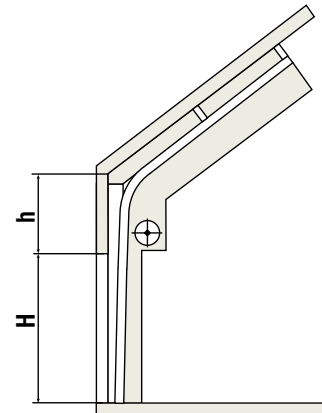
High lift, drum below for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Lintel height	$h > 1600$



High inclined lift, drum below for RSD02 doors

Parameter	Description	Calculation formula
H, ft	Opening height	H
h, ft	Headroom	$h > 1600$



* Distance from track joint to horizontal track

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A series of horizontal dotted lines for writing notes.

PLANTS



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