

Product datasheet

Overhead sectional door

ASSA ABLOY OH1042F

ASSA ABLOY

ASSA ABLOY Entrance Systems

The global leader in
door opening solutions



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Technical facts

Features

| | |
|-----------------------|---|
| Max size: (W x H)* | 7250 x 6050 mm |
| Frame thickness: | 44 mm |
| Frame material: | Aluminium tubular frames |
| Filling: | Windows or insulated sandwich panels or infills |
| Color outside: | Natural aluminium |
| Color inside: | Natural aluminium |
| Track types: | Standard: SL Optional: HL, LL, VL, HHL, SLL |
| Windows: | Optional: DAS, DSS, DAD, DSD, TAD, TSD, SA3, SS3, SH4 |
| Passdoor: | Optional: In door leaf or in side section |
| Electrical operation: | Optional: Automated operation, Access control, Safety functions |

* On request available up to 9000 x 6050 mm

Performance

| | |
|---|--|
| Opening/closing speed: | CDM9: 0,25 m/s CDM9 HD: 0,18 m/s CDM9 2H: opening 0,5 m/s, closing 0,25 m/s |
| Life time expectations: | Door: 50.000 door cycles, 100.000 optional Springs: 20.000 door cycles |
| Resistance to wind load,* EN12424 | Class 3 (\leq 4250 mm DLW, no passdoor) |
| Thermal transmittance, EN12428 | 2,4 W/(m ² .K) triple acrylic glazing 3,6 W/(m ² .K) double acrylic glazing 5,7 W/(m ² .K) single acrylic glazing (Door surface 5000 x 5000 mm, no passdoor) |
| Resistance to water penetration, EN12425 | Class 3 (no passdoor) |
| Air permeability, EN12426 | Class 3 (no passdoor) |
| Acoustic insulation, EN ISO 10140-2 | R - 24 dB |

* Higher wind load classification on request

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1. Description

1.1 General

The ASSA ABLOY OH1042F Overhead sectional door is one of the most stable overhead doors on the market.

It is an overhead sectional door, suitable for all types of buildings, with regard to both function and appearance. High flexibility makes it possible to install this door in almost every type of building.

The door slides up under the roof when opened, allowing free space around the door opening and leaving the door opening completely free.

The door is made of aluminium tubular profiles, filled with sandwich panels or acrylic windows. The high light admission makes this door the ideal choice for working environments that require maximum lighting.

The ASSA ABLOY OH1042F Overhead sectional door has been designed to meet all operational and safety requirements in the European Directives and the standards issued by the European Standardization Committee, CEN.



The door has 4 primary parts:

- 1) Door leaf
- 2) Track set
- 3) Balancing system
- 4) Operating system

1.2 Dimensions

1.2.1 Daylight width and daylight height

The standard ASSA ABLOY OH1042F Overhead sectional door is delivered in the following size range:

Standard door sizes

| | Daylight width | Daylight height |
|-------|----------------|-----------------|
| Min.: | 2050 mm | 2100 mm |
| Max.: | 7250 mm | 6050 mm |

Other sizes may be available on request.

1.2.2 Section sizes

| | |
|-----------------|---------------|
| Section height: | 450 - 704 mm* |
| Thickness: | 44 mm |

*The door leaf height is equally divided over the sections (standard).

Number of sections

| DLH Frame bottom section | Number of sections |
|--------------------------|--------------------|
| 0000 – 2296 | 3 |
| 2297 – 3000 | 4 |
| 3001 – 3704 | 5 |
| 3705 – 4408 | 6 |
| 4409 – 5112 | 7 |
| 5113 – 5816 | 8 |
| 5817 – 6050 | 9 |
| DLH Panel bottom section | Number of sections |
| 0000 – 2127 | 3 |
| 2128 – 2831 | 4 |
| 2832 – 3535 | 5 |
| 3536 – 4239 | 6 |
| 4240 – 4943 | 7 |
| 4944 – 5647 | 8 |
| 5648 – 6050 | 9 |

1.3 Door leaf

1.3.1 Construction

The ASSA ABLOY OH1042F Overhead sectional door leaf has horizontal sections, connected together with hinges. The outer hinges of each section have rollers that run in the tracks.

The horizontal sections are aluminium tubular frames with full windows or sandwich infills.

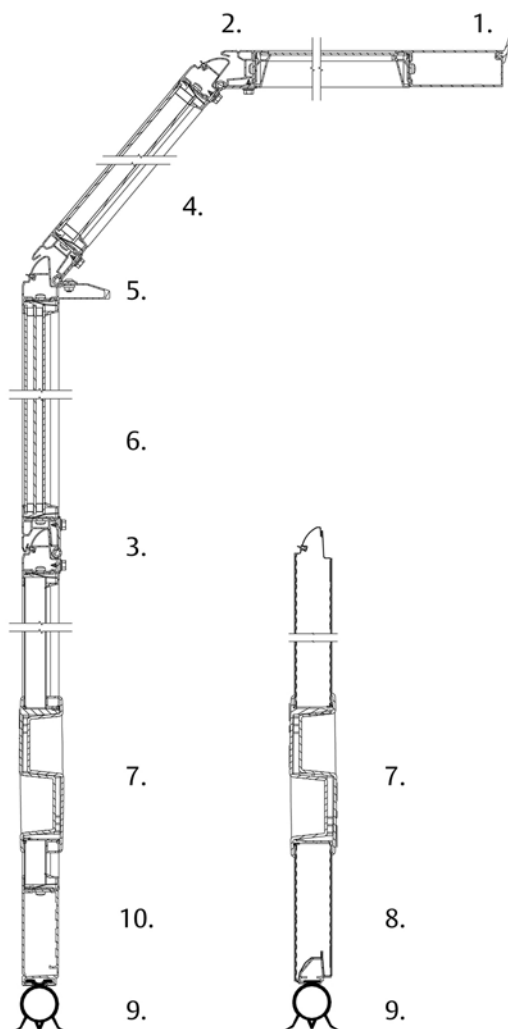


1.3.2 Material

The sections are made of tubular aluminium frames, equipped with windows or insulated sandwich infills.

The bottom section is a frame construction with insulated sandwich infills or windows, but can, if required, be delivered as an insulated steel panel.

1.3.3 Vertical cross-section



- 1) Top seal
- 2) Integrated finger pinch protection
- 3) Sealing in section joint
- 4) Single acrylic glass 3mm or hardened 4 mm section
- 5) Panel truss - wind reinforcement (if necessary)
- 6) Double glass, 27mm
- 7) Handle
- 8) Panel bottom section
- 9) Bottom seal
- 10) Frame bottom section

1.3.4 Colors

The ASSA ABLOY OH1042F Overhead sectional door is available in any color on request. As standard, the frames are delivered in natural anodized aluminium.

1.3.4.1 Standard colors

Frames

- The frames are delivered as a standard in natural aluminium

Infills

- The infills are delivered as a standard in natural aluminium

Bottom section

- Outside color:
 - Standard frame section: Natural aluminium
 - Optional panel section: Available in the 11 standard pre-coated colours RAL 1021, 3002, 5010, 6005, 7016, 8017, 9002, 9005, 9006, 9007, 9010.
- Inside color: RAL 9002 - Gray white

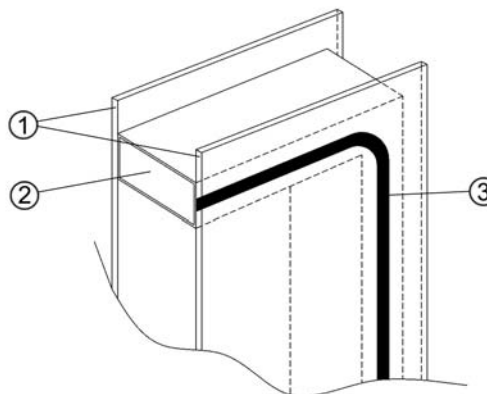
1.3.4.2 Windows

The frame construction allows full windows in all sections. The light opening is equal for all window types and depends on the dimensions of the door leaf.

DAS / DSS

DAS: Double glazed "scratch resistant" Acrylic (SAN with coating), Single sealed

DSS: Double glazed Acrylic (SAN), Single sealed



1) 2,5 mm SAN acrylic sheet (with or without coating)

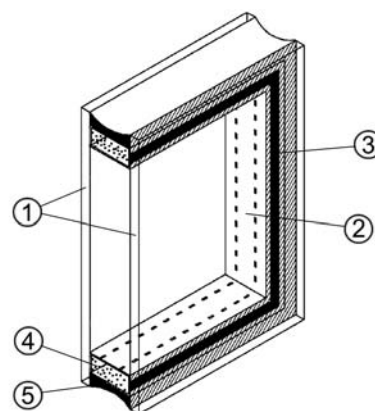
2) Aluminium distance frame

3) Butyl sealing

DAD / DSD

DAD: Double glazed "scratch resistant" Acrylic (SAN with coating), Double sealed

DSD: Double glazed Acrylic (SAN), Double sealed



1) 2,5 mm SAN acrylic sheet (with or without coating)

2) Aluminium distance frame

3) Butyl sealing

4) Absorbing siccative

5) Silicone sealing

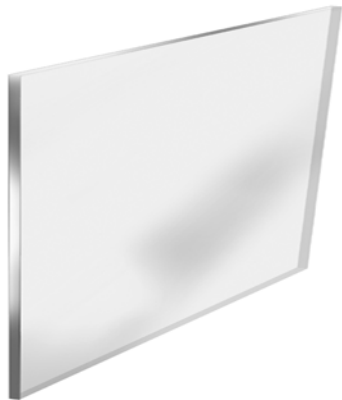
TAD / TSD

TAD: Triple glazed, double sealed, 3 x 2,5mm, outer & inner sheet SAN scratch-resistance coating.

TSD: Triple glazed, double sealed, 3 x 2,5mm, SAN (without scratch-resistance coating).



SA3 / SS3 / SH4



- SA3: Single pane of "scratch resistant" Acrylic (SAN with coating) 2,5 mm
- SS3: Single pane of Acrylic (SAN) 2,5 mm
- SH4: Single hardened glass 4 mm

1.3.5 Seals

The door is equipped with well designed seals on all sides that gives the door its excellent sealing abilities.

1.3.5.1 Top seal

The top seal is installed on the top panel to seal the gap between the panel and the wall. The EPDM rubber top seal ensures an optimal insulation and tightness.



1.3.5.2 Side seal

Installed on the track set to close the gap between the tracks and the door leaf. The double lip side seal design with insulation chambers ensures an optimal insulation and sealing.



1.3.5.3 Bottom seal

The bottom seal is installed on the bottom edge of the bottom panel, to act as a barrier as well as a shock absorber. The flexible EPDM rubber material and the O-shape provides continuous pressure on the floor, ensuring maximum sealing.



1.3.8 Lock bolt

A standard ASSA ABLOY OH1042F Overhead sectional door is equipped with a Lock bolt. The Lock bolt locks the door from the inside, without the use of a key.



1.3.6 Wind reinforcement truss

Wider door panels and panels with windows are reinforced with metal profiles that act as trusses. These trusses reduce bending of the panel caused by wind loads or when the door leaf is in the horizontal position and is bending under its own weight. The wind reinforcement truss is integrated in the aluminium profiles.

1.3.7 Handle

For manual operation, every ASSA ABLOY OH1042F Overhead sectional door is provided with a solid, easy to grip and step-on handle, finished with the ASSA ABLOY logo.



1.4 Balancing system

The balancing system balances the door by applying a force nearly equal to the weight of the door leaf. This allows the door leaf to be moved up and down manually, and to stay open in any position.

The system is installed on the top or the end of the track set and works as follows: Two torsion springs are installed on a shaft above the door opening. This shaft has a cable drum on each end from which door cables run to the bottom corners of the door leaf. Turning the shaft moves the door up or down.

1.4.1 Safety devices

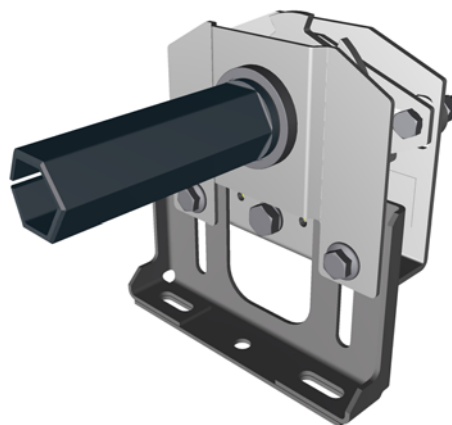
The balancing system supports heavy forces. In case of a spring or cable break, its counterforce is lost. The door is therefore equipped with two safety devices that can block downward door movement:

- Spring Break Device (standard)
- Cable Break Device (optional)

1.4.1.1 Spring break device (SBD)

The Spring Break Device (SBD) is delivered with all ASSA ABLOY OH1042F Overhead sectional doors.

In the event of a spring break, the sudden drop force activates the Spring Break Device (SBD). The shaft will be locked in less than 300mm of door movement.



1.4.1.2 Cable break device (CBD)

The Cable Break Device (CBD) is an optional safety device. In the event of a cable failure the door leaf will be blocked in less than 300mm to avoid damage.



1.5 CEN Performance

1.5.1 Lifetime expectation

- 50.000 door cycles or 10 years (in a normal industrial environment) 100.000 optional.
- Springs: 20.000 door cycles

1.5.2 Resistance to windload

| | |
|----------------|-------------------------|
| EN12424 | Without passdoor |
| Test result | Class 3 |

| Class | Pressure Pa (N/m ²) | Specification |
|-------|---------------------------------|---|
| 0 | - | No performance determined |
| 1 | 300 | |
| 2 | 450 | |
| 3 | 700 | |
| 4 | 1000 | |
| 5 | > 1000 | Exceptional : Agreement between manufacturer and supplier |

1.5.3 Resistance to water penetration

| | |
|----------------|-------------------------|
| EN12425 | Without passdoor |
| Test result | Class 3 |

| Class | Pressure Pa (N/m ²) | Specification |
|-------|---------------------------------|---|
| 0 | - | No performance determined |
| 1 | 30 | Waterspray for 15 minutes |
| 2 | 50 | Waterspray for 20 minutes |
| 3 | > 50 | Exceptional : Agreement between manufacturer and supplier |

1.5.4 Air permeability

| | |
|----------------|---|
| EN12426 | Without passdoor |
| Test result | Class 3 |
| Class | Air permeability dp at a pressure of 50 Pa (m³/m²/h) |
| 0 | - |
| 1 | 24 |
| 2 | 12 |
| 3 | 6 |
| 4 | 3 |
| 5 | 1,5 |
| 6 | Exceptional : Agreement between manufacturer and supplier |

1.5.5 Thermal transmittance

| | | | |
|-----------------------|------------------------|------------------------|------------------------|
| EN12428 | Triple Acrylic | Double Acrylic | Single Acrylic |
| Thermal transmittance | 2,4 W/m ² K | 3,4 W/m ² K | 5,2 W/m ² K |

(Door surface 5000mm x 5000mm, no passdoor)

1.5.6 Acoustic insulation

| | |
|-----------------------|---|
| ISO 10140-2 | Panel with 2x 2,8 mm acrylic glazing |
| Acoustic insulation * | R - 24 dB |

* Door surface 4.000 x 2.500 mm (for other sizes it can differ)

1.5.7 Operating forces and safe openings

| | | | |
|------------------------------|---|-----------------------------------|--|
| EN12453 & EN12604 | Crushing force N | Crushing force N | Crushing force N |
| Opening gap mm | 200 mm from lateral border right from outside | In the middle of the door opening | 200 mm from lateral border left from outside |
| 50 mm | passed | passed | passed |
| 300 mm | passed | passed | passed |

The crushing force is the force needed for the safety edge to be activated. The maximum force allowed, according to EN12453 safety in use of power operated doors is 400 N within a maximum period of time of 0.75s. With standard light curtain there is no crushing force.

1.6 Track sets

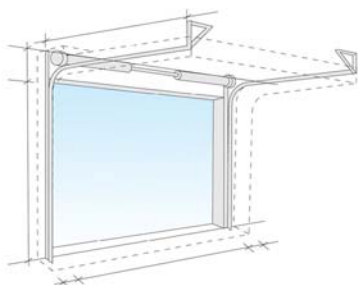
1.6.1 General

The track set supports the door leaf on its rollers and guides it upwards. The selection of the appropriate track set is based on various factors:

- Available head room
- Door height
- Type of vehicles
- Presence of roof obstructions, pipes and overhead crane beams.

The track sets below cover most applications. Other applications are available on request.

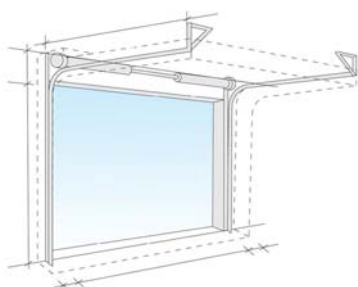
1.6.2 SL - Standard Lift



- Building type: Most standard industrial buildings.
- Benefits: Optimal design for common buildings.

The Standard Lift track set, with the spring package just above the door, is the most common solution

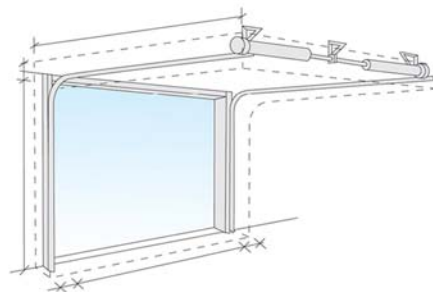
1.6.3 SLL - Standard Low Lift



- Building type: Low ceilings.
- Benefits: Achieve more daylight height with a limited head room.

The Standard Lift Low track set is a variant of the Low Lift where the spring package is installed just above the door.

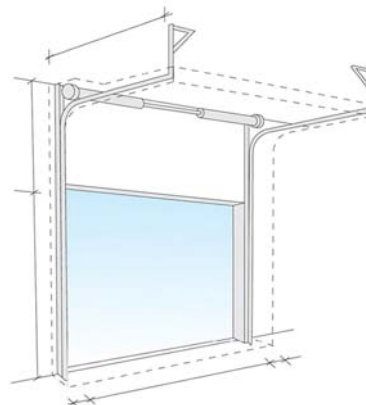
1.6.4 LL - Low Lift



- Building type: Low ceilings.
- Benefits: Achieve maximum daylight height with minimum head room.

Same as standard lift, but with the spring package at the end of the horizontal tracks.

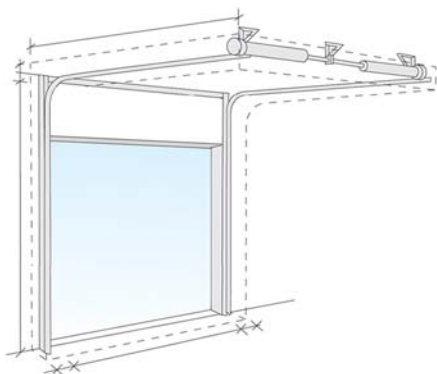
1.6.5 HL - High Lift



- Building type: High ceilings. On the High Lift track set the spring package is placed high above the door.
- Benefits: This track type allows high vehicles to cross along the door opening without obstructions of the horizontal tracks.

This track type is used when the space above the door is considerable, and is needed for work and traffic, e.g.: high vehicles.

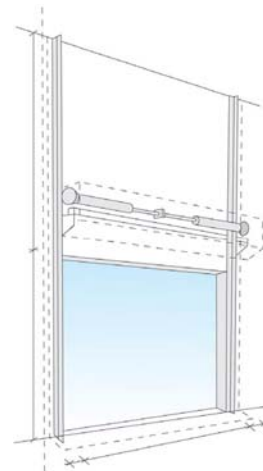
1.6.6 HHL - High lift with spring package at the end of the horizontal track



- Building type: High ceilings. Used when space between ceiling and lower edge of horizontal track is limited.
- Benefits: Achieve maximum highlift with minimum head room.

High lift hardware with the spring package placed in the end of the horizontal track.

1.6.7 VL - Vertical Lift

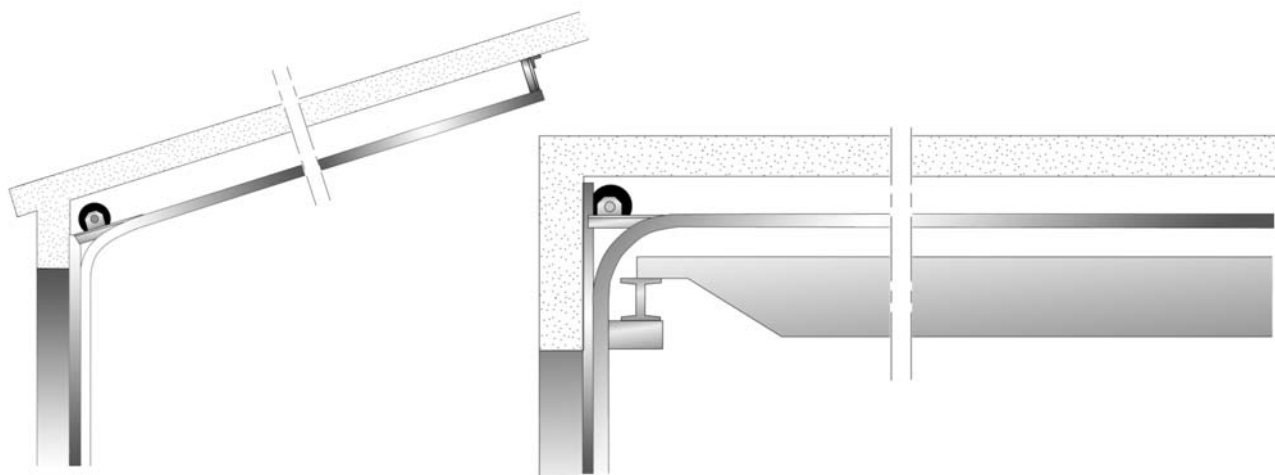


- Building type: Very high ceiling and high working space requirements.
- Benefits: Allows high vehicles to cross along the door opening without any obstructions.

If the space between the daylight height and the roof is sufficient, with this track type, the door can be opened vertically.

1.6.8 Special track sets

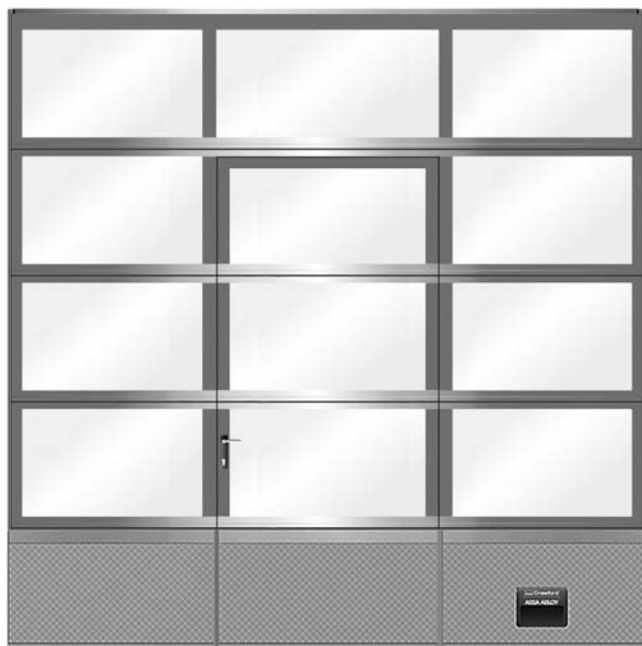
The ASSA ABLOY OH1042F Overhead sectional door track set can be custom designed to make the door fit in places that seem quite impossible. Our door technicians can solve installation problems where the door must share space with ventilation systems, crane beams, etc. For example:



2. Available Options

2.1 Passdoor with low threshold

The passdoor with low threshold is designed to optimise comfortable pedestrian passing and minimises the risk of tripping. In addition, with the sturdy design of the bottom profile it is not required to strengthen the door leaf with a bottom reinforcement truss.



Features:

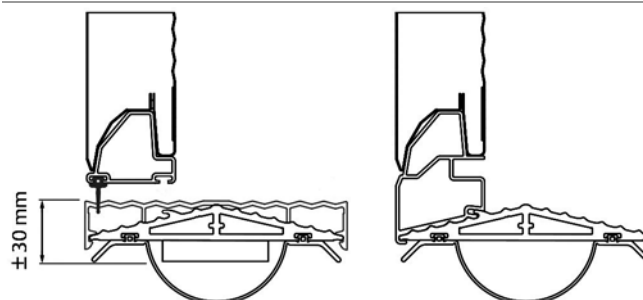
- 900 mm free passing space
- Free passing height 2056 mm
- Always opening outwards, min. 90 degrees opening
- Hinged left or right
- Seals in passdoor frame reduce air permeability.
- Integrated passdoor switch if electrically operated
- Aluminium door handle
- All commonly used cylinder locks are available:
Euro, Keso. Standard : Euro cylinder lock
- High quality door closer
- Panic lock (option)
- Minimum DLH 2261 mm

Construction

The low threshold passdoor is available for doors with a full framed bottom section and for doors with a panel bottom section. A specially designed, sturdy and wide aluminium profile gives the bottom section its stability. This profile is ribbed, minimising the risk of slipping when there is rain or snow on the floor or on the profile.

At passdoor

Beside passdoor



Outside view of threshold

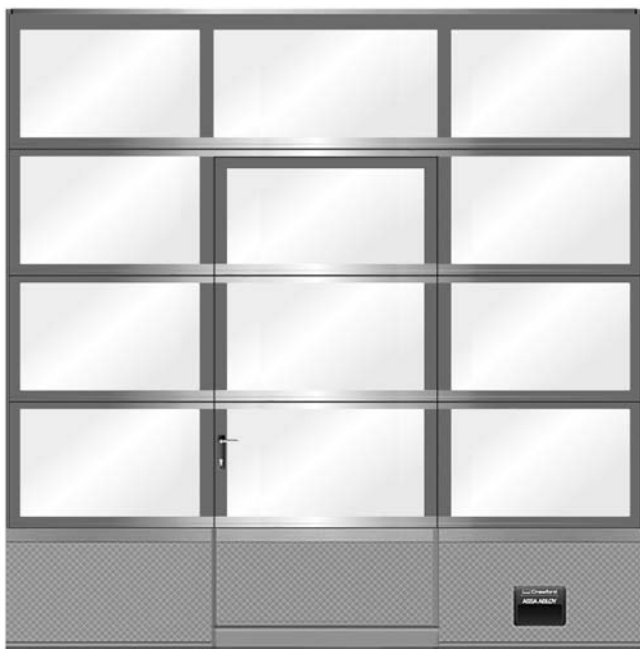


Types of operation

The low threshold passdoor is available for all types of operation. In case of impulse-down button operation, a special CDM9 with 950 control unit is required with a front running photocell that detect persons or objects in the door opening when the door closes.

2.2 Passdoor with 180 mm threshold

The standard 180 mm is designed to be combined with virtually all options of the door. It is not applicable as an emergency exit, as its threshold of 180 mm is too high.



Features:

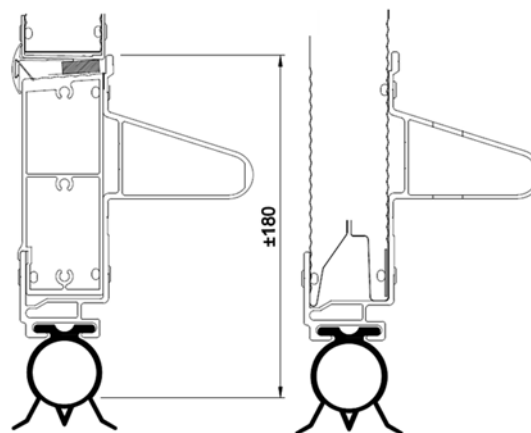
- 900 mm free passing space
- Free passing height 2046 mm
- Always opening outwards, min. 90 degrees opening
- Hinged left or right
- Seals in passdoor frame reduce air permeability.
- Integrated passdoor switch if electrically operated
- Aluminium door handle
- All commonly used cylinder locks are available:
Euro, Keso. Standard : Euro cylinder lock
- High quality door closer
- Panic lock (option)
- Minimum DLH 2261 mm

Construction

This passdoor is constructed with a OH1042P bottom section and bottom seal. A reinforcement truss on the bottom section is required to maintain the door's sturdiness and resistance to wind load.

At passdoor

Beside passdoor



Outside view of threshold

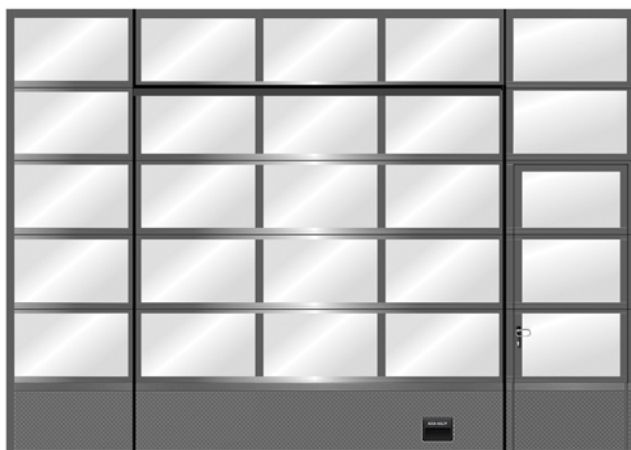


2.3 Fixed sections

Fixed sections can advantageously fill space around new doors that are smaller than the wall opening. Fixed sections are available in top and side sections. Fixed sections are supplied in the same color and construction as the door leaf. A fixed section can be provided with a passdoor for two reasons: Safety and energy cost reduction.

- Safety: Putting a separate passdoor in a fixed section next to the industrial door separates pedestrian and vehicle traffic.

Energy cost reduction: The opening space for frequent pedestrian traffic is minimized.



2.4 Optional colors *

Frames

- Factory painting, all RAL colors

Infills

- Factory painting, all RAL colors

Bottom section

- Factory painting, all RAL colors, outside only

2.5 Locks

2.5.1 Cylinder lock

The Cylinder lock is a key operated lock which offers extra security. The lock is installed on the inside and can be unlocked with a key and turning the handle. Access to the Cylinder lock is possible from either only the inside, or both the inside and the outside.



2.6 Anti corrosive hardware

For use under harsh conditions the ASSA ABLOY OH1042F Overhead sectional door can be fitted with a set of anti corrosive hardware. There are 3 sets available to cope with the different demands.

Set Corrosive C

| | |
|-----------------------|-----------------|
| Roller brackets | Stainless steel |
| Rollers | Stainless steel |
| Clamp | Stainless steel |
| Hinges, Joining plate | Plastic |
| Screws | Stainless steel |
| Corner bracket | Powder coated |
| Door cables 3-5 mm | Stainless steel |

Set Corrosive A

All options in Set Corrosive C plus:

| | |
|----------------------|-----------------|
| End caps | Powder coated |
| Top section brackets | Powder coated |
| Trusses | Powder coated |
| Track set | Powder coated |
| Screw/bolt set | Stainless steel |

Set Corrosive Z

| | |
|-----------------------|--------------------|
| Springs 95mm or 152mm | Zinc electroplated |
|-----------------------|--------------------|

The anti corrosive hardware sets are available for the track types SL, SLL, HL, HHL, LL and VLB.

VLA and VLT are available in set C only .

The max. doorweight for anti corrosive hardware is 410 kg and the max. daylight width is 8.000mm. For technical reasons some parts are not available in an anti corrosive version.

3. Specifications

3.1 Windows and passdoor

3.1.1 Number of windows (with passdoor)

For windows, the daylight width is divided into a fixed grid. The number of windows depends on the daylight width of the door.

| Daylight width | No. of windows |
|----------------|----------------|
| 2050 - 4050 mm | 3 |
| 4051 - 5050 mm | 4 |
| 5051 - 6050 mm | 5 |

3.1.2 Number of windows (without passdoor)

| Daylight width | No. of windows |
|----------------|----------------|
| 2050 - 3050 mm | 2 |
| 3051 - 4550 mm | 3 |
| 4551 - 6050 mm | 4 |
| 6051 - 7250 mm | 5 |

3.1.3 Passdoor low threshold

Passdoor opening sizes

| | |
|--------------------------|----------|
| Width: | 900 mm |
| Height from floor level: | Variable |

Position of passdoor *

| Daylight width | Pane no. |
|----------------|----------|
| 2050 - 4050 mm | 2 |
| 4051 - 5050 mm | 2 or 3 |
| 5051 - 6050 mm | 3 |

Permissible overhead door sizes

| | |
|-------------------------|---------|
| Minimum permissible DLW | 2050 mm |
| Maximum permissible DLW | 6050 mm |
| Minimum permissible DLH | 2172 mm |
| Maximum permissible DLH | 6050 mm |

Requirements

- If the door is electrically operated with impulse-close or automatic closing, front running photocells are required that detect persons and objects in the door opening when the door closes.
- * Position and opening direction of the passdoor depend on the total door width and glass weight. For detailed information contact your local ASSA ABLOY sales team.

Specifications

| | |
|-------------------|-------------------------|
| Threshold height: | 30 mm incl. bottom seal |
| Lock: | Depends on market |
| Door closer: | Sliding |

3.1.4 Passdoor standard threshold (180mm)

Passdoor opening sizes

| | |
|--------------------------|----------|
| Width: | 900 mm |
| Height from floor level: | Variable |

Position of passdoor *

| Daylight width | Pane no. |
|----------------|----------|
| 2050 - 4050 mm | 2 |
| 4051 - 5050 mm | 2 or 3 |
| 5051 - 6050 mm | 3 |

* Position and opening direction of the passdoor depend on the total door width and glass weight. For detailed information contact your local ASSA ABLOY sales team.

Permissible overhead door sizes

| | |
|-------------------------|---------|
| Minimum permissible DLW | 2050 mm |
| Maximum permissible DLW | 6050 mm |
| Minimum permissible DLH | 2244 mm |
| Maximum permissible DLH | 6050 mm |

Specifications

| | |
|-------------------|--------------------------|
| Threshold height: | 180 mm incl. bottom seal |
| Lock: | Depends on market |

4. Operating system

4.1 Types of operation

The ASSA ABLOY OH1042F Overhead sectional door can be opened and closed manually. They are also prepared for electrical operation. Electrically operated doors can be controlled by hand or be fully automatic. Traffic frequency, climate requirements and the weight of the door play a key role in choosing the optimal control system.

4.1.1 Pull-down rope

The ASSA ABLOY OH1042F Overhead sectional door can be operated manually with a pull-down rope. The pull-down rope is directly connected to the door leaf.

4.1.2 Chain hoist

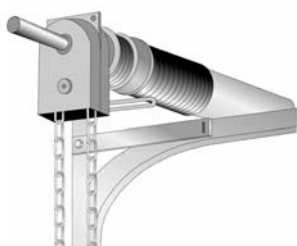
For heavier doors, a chain hoist allows easier door operation. There are three types of chain hoist:

D-hoist:



- D-hoist: Non-geared chain transmission directly connected to the shaft. Recommended for doors up to 250 kg (For hexagonal shaft only).

T-hoist:



- T-hoist: Geared (ratio 1:4) chain transmission directly connected to the shaft. Recommended for doors up to 250 kg (For all shaft types).

U-hoist:



- U-hoist: Geared (ratio 1:3) indirect chain transmission. Recommended for doors of 250 kg and above (For all shaft types).

4.1.3 Electrical operation

The ASSA ABLOY OH1042F Overhead sectional door can be supplied or upgraded with an electrical operating system. Electrical operation gives access to the full program of Access and Automation functions, that can fulfill many operational needs, related to traffic type and frequency, door weight and temperature control.



4.2 CDM9 Operator - 900 Door control systems

The CDM9 operator is a combination of the CDM9 operator and a 900-series Door control system. The regular CDM9 model is available for doors up to 400 kg. The CDM9 HD model is available for doors up to 800 kg. The double speed CDM9 2H model is available for doors up to 250 kg.

4.2.1 CDM9 Operator

One main part of the system is the operator: an electric motor which drives the balancing shaft with the cable drums and torsion springs. It can be retrofitted to an already installed door. The CDM9 operator is mounted directly on the balancing shaft and does not require any special wall reinforcement. The CDM9 can also be equipped with an integrated geared (ratio 1:3,5) chain hoist.

Key features:

- Smooth and silent
- Soft start and stop
- Fits all track types and shafts
- Life time: 84.000 - 300.000 door cycles (depending on weight and temp.) e.g.:
 - temp. 0 °C - +40 °C/weight 250 kg = 300.000 cycles
 - temp. -20 °C - +60 °C/weight 400 kg = 84.000 cycles



| | CDM9 | CDM9 HD | CDM9 2H |
|-----------------------------------|-------------------------------------|--|-------------------------------------|
| Voltage supply: +/- 10% | 230V AC 1-phase 50/60Hz | 230V AC 1-phase 50/60Hz | 230V AC 1-phase 50/60Hz |
| Power: | 0,37 kW | 0,6 kW | 0,37 kW |
| Degree of protection: | IP55, excl. connector IP 44 | IP55, excl. connector IP 44 | IP55, excl. connector IP 44 |
| Allowed door weight, max.: | 400 kg | 800 kg | 250 kg |
| Temperature working range: | -20 °C to +55 °C* | -20 °C to +55 °C* | -20 °C to +55 °C* |
| Operating factor: | ED = 30% S3 10 min. intermittent | ED = 30% S3 10 min. intermittent | ED = 30% S3 10 min. intermittent |
| Mounting preparations: | - | When installing on the wall, an extra attachment angle is required | - |

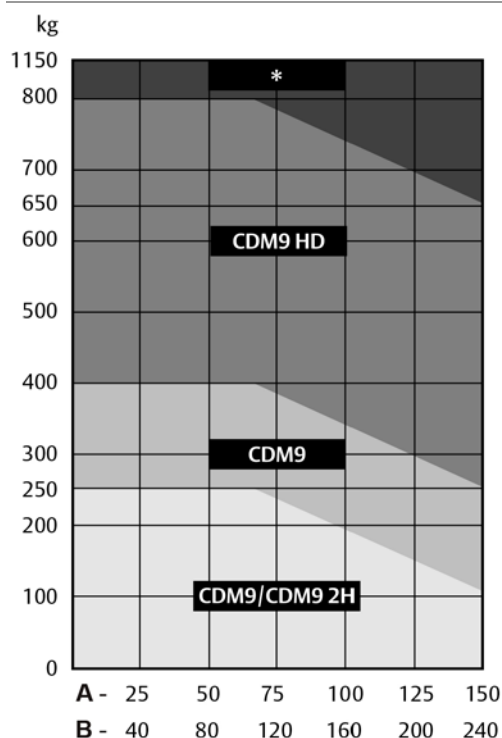
*) Normal opening speed in a temperature down to -8°C. In the temperature range -8 °C to -20 °C the opening speed is reduced during the first cycle to prolong the operator's lifetime. An optional heating element is available for a working range down to -30 °C

4.3 Selection guidelines for operation type

| Door size m ² | Openings / day | | | |
|-----------------------------|----------------|-------------|--------------|------------|
| | 1-5 day | 5-10 day | 10-15 day | >25 day |
| 0 – 10 | □ / ■ | □ / ■ | ■ / ■ | ■ / ■ |
| 10 – 20 | □ / ■ | ■ | ■ / ■ | ■ / ■ |
| > 20 - 42 | ■ | ■ | ■ / ■ | ■ / ■ |
| > 42* | ■ | ■ | ■ / ■ | ■ / ■ |

- Manual operation
- Electrical operation
- Automated operation

4.4 Selection guidelines for door operator



Door openings/day

1. Over 300 days/year
2. Over 220 days/year

Average door weight

- Steel door : 13 kg/m²
- Alu door : 10 kg/m²

4.5 900 Door control systems

4.5.1 General

The 900 Door control system series provides a range of control units, from basic up, stop and down buttons to advanced automated control. The 900 series door control units have a IP 55 classification.

The design of all control units is based on modules, and it is possible to upgrade or downgrade safety or automation functions. Additional kits such as magnetic loop, photocells, radar, radio and reduced door opening are available.

4.5.2 920 Door control system

The 920 Door control system is the basic control unit that has the necessary hold-to-run or impulse open, hold-to-run close and stop functions and a slot for an external control box.

This control unit is the economical solution for working environments where the door opening frequency is low.



4.5.3 930 Door control system

The 930 Door control system is a basic control unit that has impulse up and down functions with supervised safety edge. An extra set of upgrade features, such as external control, that can be installed during or after installation, is available. This control unit is the more advanced solution for door openings that are frequently used by pedestrians and forklift trucks, because of its automated opening and closing function.



4.5.4 950 Door control system

The 950 Door control system is the most advanced control unit that is prepared for one or more physical upgrades from the entire range of automation systems. An automation system allows door operation by sensors or remote control. This control unit contains a 3-digit diagnostics display that allows efficient troubleshooting and displays the number of door cycles. Together with the service indicator, this extra feature allows advanced maintenance planning to users where the door is an essential element of internal logistics.



4.5.5 900 Door control systems - Selection guidelines

| Functions included | 920 | 930 | 950 |
|-----------------------|-----|-----|-----|
| Open (by impulse) | ■ | ■ | ■ |
| Open (hold to run) | | | |
| Stop | ■ | ■ | ■ |
| Close (by impulse) | | ■ | ■ |
| Close (hold to run) | ■ | | |
| Safety edge | | ■ | ■ |
| Open function | | ■ | ■ |
| One button function | | | ■ |
| Display (diagnostics) | | | ■ |
| Service indicator | | | ■ |

■ Standard
□ Option / Available

4.6 900 Door control systems - Selection guidelines for automation

The “Automation D-kits” are packages of common combinations. These kits can also be supplemented by “additions to D-kits”.

| Automation D-kits | D1 | D2 | D3 | D4 | D5 | D6 | D7 |
|------------------------------|----|----|----|----|----|----|----|
| Interlocking | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Magnetic loop | | ■ | | ■ | | ■ | |
| Traffic lights - Green + Red | | | | | ■ | ■ | |
| Warning lights - Red | ■ | | | ■ | | | |
| Additions to D-kits | | | | | | | |
| Warning lights – Green | | | □ | | | | |
| Relay box | □ | □ | □ | □ | □ | □ | □ |
| Radar | □ | □ | □ | □ | □ | □ | □ |

- Standard
- Option / Available

The following options can be individually selected to add functionality to the control unit.

| Functions optional | 920 | 930 | 950 |
|--------------------|---|---|---|
| |  |  |  |

| Complete kits | | | |
|------------------------------------|---|---|---|
| Automation D-kits | | | □ |
| Basic control functions | | | |
| Interlocking | | | □ |
| Reduced opening | | | □ |
| External control functions | | | |
| External pushb. box | □ | □ | □ |
| Pull-rope switch | | □ | □ |
| Remote control open/stop/close | | □ | □ |
| Remote control 1-button function | | | □ |
| Automatic control functions | | | |
| Automatic closing | | □ | □ |
| Photocell open door | | | □ |
| Safety functions | | | |
| Safety photocell (1 or 2) | | □ | □ |
| French safety logic | | | □ |
| Additional functions | | | |
| UPS Battery backup | □ | □ | □ |
| Relay box | | | □ |

- Standard
- Option / Available

4.7 Access and automation

ASSA ABLOY offers a wide range of functions that allows advanced opening and safety control. Please refer to the specification sheet of the control units to see which functions apply to which models.

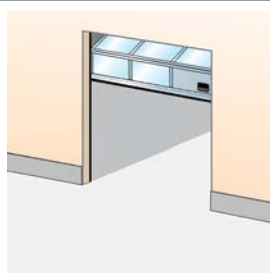
4.7.1 Basic control functions

4.7.1.1 Interlocking



Developed for climate control or safety; If door A is open, door B cannot be opened. If door B is open, door A cannot be opened. An interlocked door can remember an up-command, if selected via a micro switch.

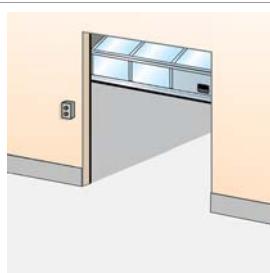
4.7.1.2 Reduced opening



When it is unnecessary or undesirable to fully open a door, an additional switch can be used to open the door to a pre-programmed reduced opening position.

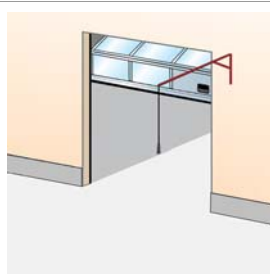
4.7.2 External control functions

4.7.2.1 External push button box



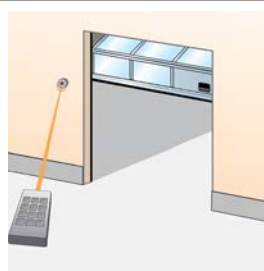
An extra control box is installed outside the building or inside close to the door if the main control unit needs to be installed away from the door opening. Installed on the inside or outside wall beside the door.

4.7.2.2 Pull-rope switch



A pull-rope switch above the door opening can be operated from e.g. a forklift truck. Pulling the rope opens a closed door or closes an opened door. Installed on the inside construction above the door.

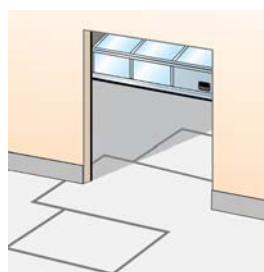
4.7.2.3 Remote control



A hand-held radio transmitter allows door operation from a vehicle or any position within 50-100 meters from the receiver and aerial at the door. For closing, the door can be provided with a photocell beam. Receiver installed in control unit, antenna installed on the wall beside the door.

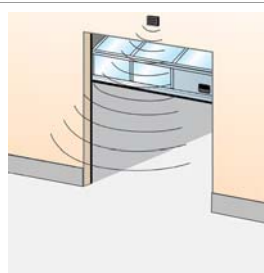
4.7.3 Automatic control functions

4.7.3.1 Magnetic loop



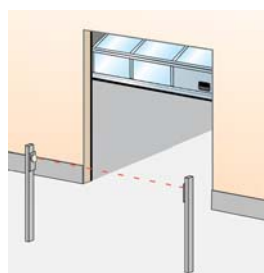
A sensor in the floor detects a metal object (usually forklift trucks, pallet trucks) and opens the door automatically. This is an ideal solution for frequent vehicle traffic. Installed on the outside, inside or both sides of the door in the floor.

4.7.3.2 Radar



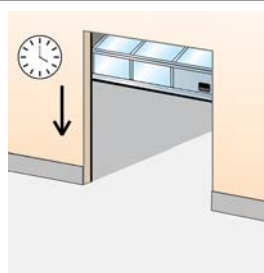
An infrared sensor above the door detects an object (person, vehicle) within a specified distance from the door and opens the door automatically. This is an ideal solution for frequent vehicle or personal traffic. Often combined with automatic closing. Installed on the inside or outside wall above the door.

4.7.3.3 Photocell open door



A set of photocells on pillars, on each side of the door. When a person or vehicle passes between the photocells, the beam is interrupted and the door opens. Photocells installed on pillars, away from the door.

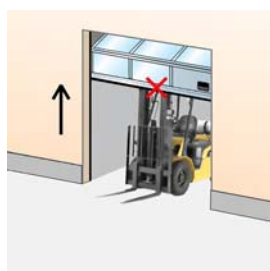
4.7.3.4 Automatic closing



A programmable timer that closes the door after a specified time, counted from either the fully open position and/or from passing through the photocell beam. Adjustable micro switches in control unit.

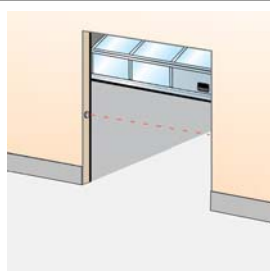
4.7.4 Safety functions

4.7.4.1 Safety edge



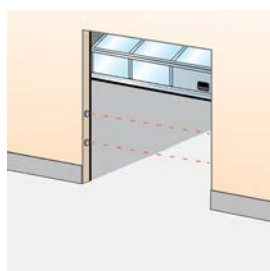
As a standard, all doors that have the impulse-close function or any form of automated closing, are equipped with a safety edge. The pneumatic sensor in the bottom seal detects any obstruction under a closing door and reverses the door.
Installed in the bottom seal.

4.7.4.2 Safety photocells 1-channel



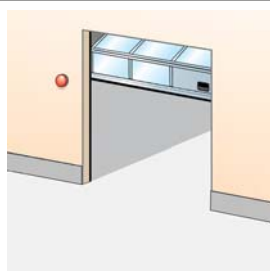
A set of a photocell transmitter and receiver is installed in the door opening. If the photocell beam is interrupted during closing, the door will stop in less than 30mm and reverse to the fully open position.
Installed in the door opening.

4.7.4.3 Safety photocells 2-channel



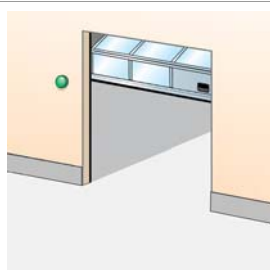
Two sets of photocell transmitter and receiver are installed in the door opening. If one or both photocell beams are interrupted during closing, the door will stop in less than 30mm and reverse to the fully open position.
Installed in the door opening.

4.7.4.4 Warning lights - Red



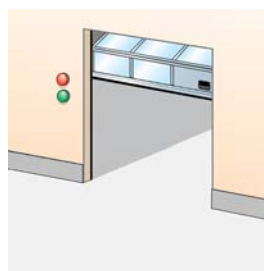
Two red warning lights giving information on the current door behaviour. Flashing light before or during door movement. Optional: Continuous light before and during door movement.
Installed on the inside and outside wall beside the door.

4.7.4.5 Warning lights - Green



One or two green warning lights indicating the open position of the door by continuous light signal.
Installed on the inside and/or outside wall beside the door.

4.7.4.6 Traffic lights - Red & Green



If traffic through a door needs to be directed; two red and two green traffic lights can be installed to indicate traffic direction. From the side where a vehicle is first detected to approach the door, the green traffic light comes on. The opposing side shows a red traffic light. Traffic from this direction must give way to the other. Usually installed in e.g. parking garages.
Installed on the inside and outside wall beside the door.

4.7.5 Additional functions

4.7.5.1 UPS battery backup



When mains failure cannot be permitted or an increased risk of mains failure is predicted, the UPS battery backup system can be installed to store enough energy for 5 door cycles.
Installed on the inside wall beside the door.

4.7.5.2 Relay box



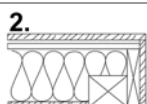
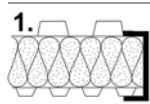
A sealed connection box makes it possible to safely connect external high-voltage equipment.

5. Building and space requirements

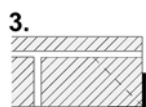
5.1 Building preparations

5.1.1 Installation preparations

The ASSA ABLOY OH1042F Overhead sectional door is shipped in parts and installed on-site. All necessary installation material is included. For every track type ASSA ABLOY offers specific installation kits to position the door in the building facade.



- 1) Steel
- 2) Wood
- 3) Brick & Concrete



5.2 Space requirements

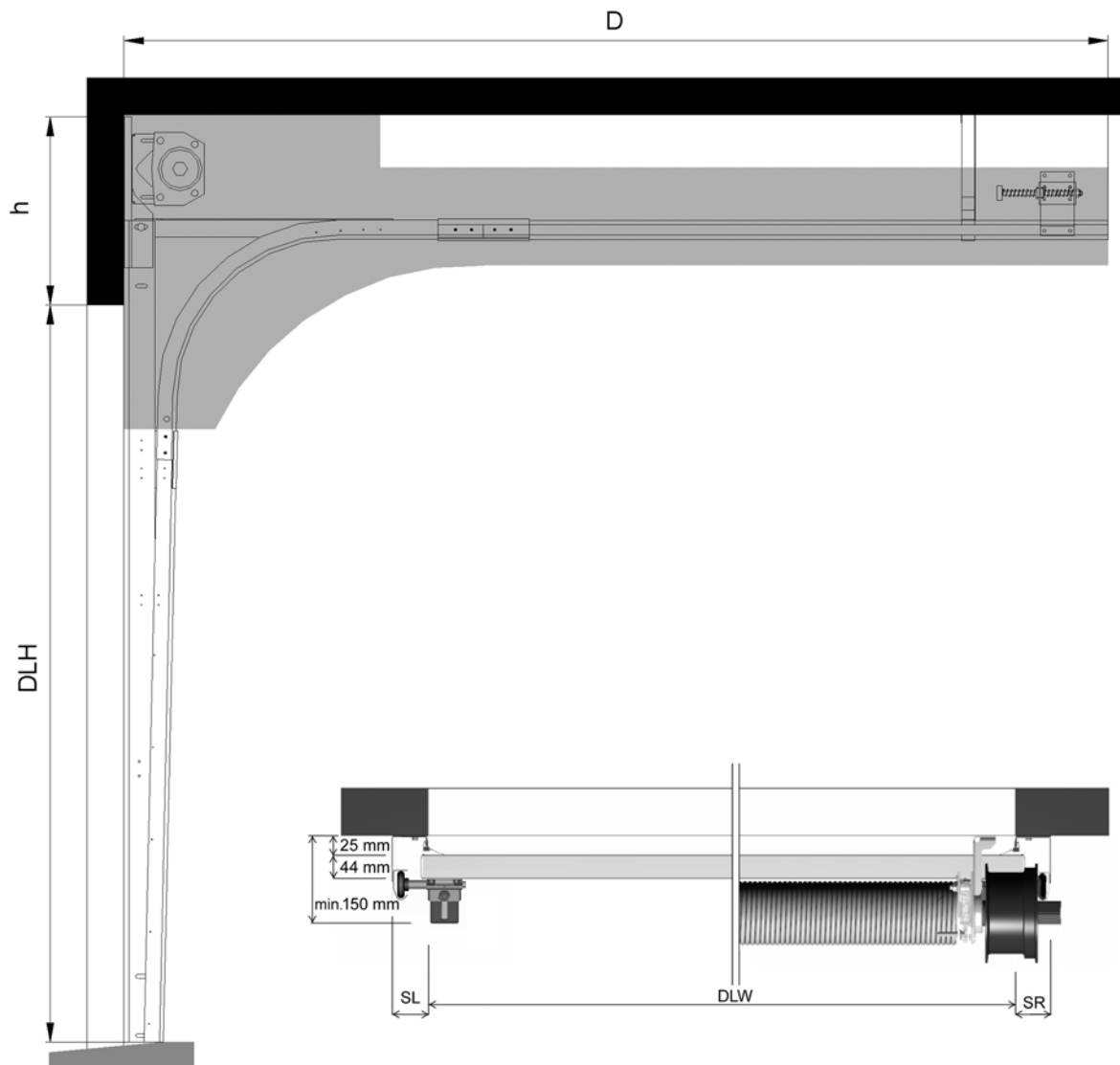
| | | |
|-----|--------------------|---|
| DLH | = Daylight Height | The height of the clear opening |
| DLW | = Daylight Width | The width of the clear opening |
| D | = Depth | The space between the inner side of the wall and the end of the horizontal track construction |
| h | = Excess height | The extra space required above the daylight height. |
| SL | = Side space Left | The space required for tracks beside the daylight width. |
| SR | = Side space Right | The space required for tracks beside the daylight width. |

The grey marked area in the illustrations shows the free space required by door movement. Extra space requirements for electrically operated doors are stated in the operator specifications. Extra space requirements for passdoors are stated in the passdoor specifications.

5.2.1 Space requirements SL

| | |
|-------|---|
| h | 485 mm (DLH ≤ 4500 mm) 510 mm (DLH > 4500 mm) 575 mm (with center operator) |
| SL/SR | 132 mm Manual, 212 mm Hoist-D/T, 278 mm Hoist-U, 270 mm Operator, 310 mm Operator+Hoist (with outer support bearing + 45 mm) |
| D | DLH + 600 mm |
| | For details see the specific building preparation drawings |

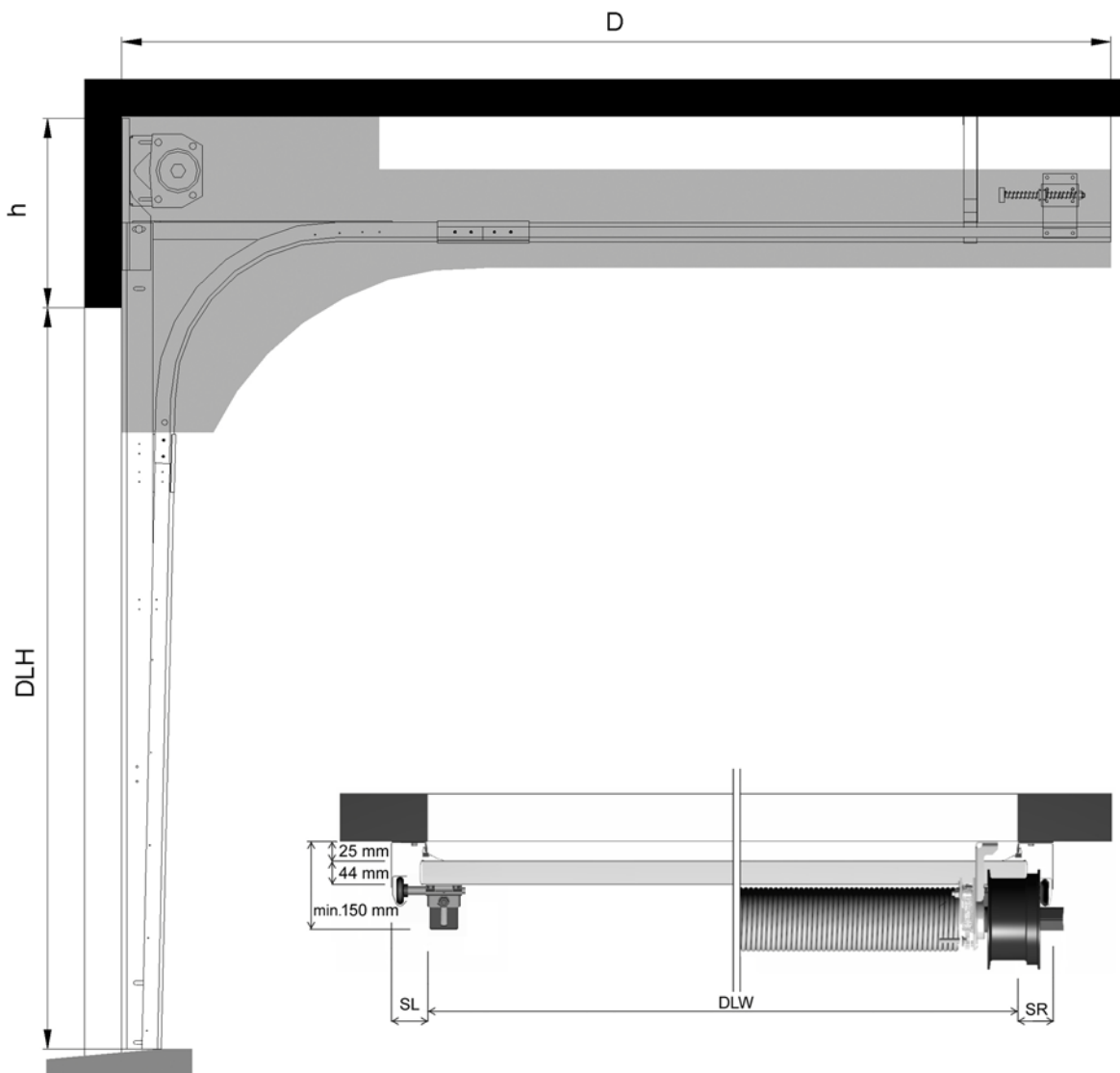
Side and top view:



5.2.2 Space requirements SLL

| | |
|--|---|
| h | 400 mm 475 mm (with center operator) |
| SL/SR | 132 mm Manual, 212 mm Hoist-D/T, 278 mm Hoist-U, 270 mm Operator, 310 mm Operator+Hoist (with outer support bearing + 45 mm) |
| D | DLH + 900 mm |
| For details see the specific building preparation drawings | |

Side view



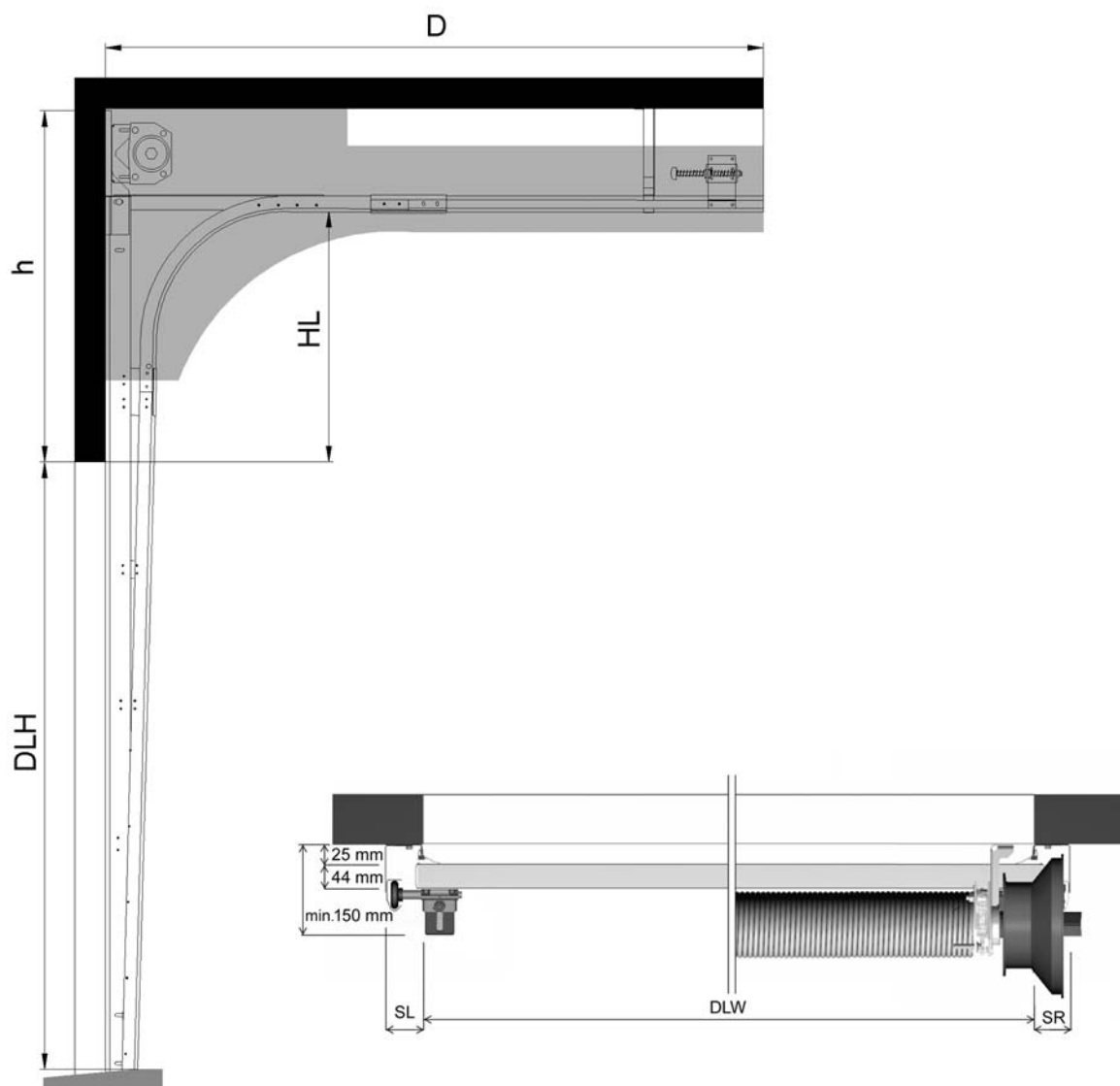
Top view

5.2.3 Space requirements HL

| | HL | HL with Beam |
|-------|---|---|
| h | HL+320 mm (HL ≤ 3400 mm) HL+370 mm (HL > 3400 mm) HL +400 mm (with center operator) | HL+220 mm |
| SL/SR | 132 mm Manual, 212 mm Hoist-D/T, 278 mm Hoist-U, 270 mm Operator, 310 mm Operator+Hoist (with outer support bearing + 45 mm) | 106 mm Manual, 212 mm Hoist-D/T, 278 mm Hoist-U, 312 mm Operator, 352 mm Operator+Hoist (with outer support bearing + 64 mm) |
| D | DLH - HL + 800 mm | DLH - HL + 800 mm |

For details see the specific building preparation drawings
*We would advise the following doors to be installed on a frame, equipped with an A-65 top seal.
Doors DLW > 6000 mm
Doors DLW ≥ 4000 mm with a dark outside colour, frequently exposed to solar heat.

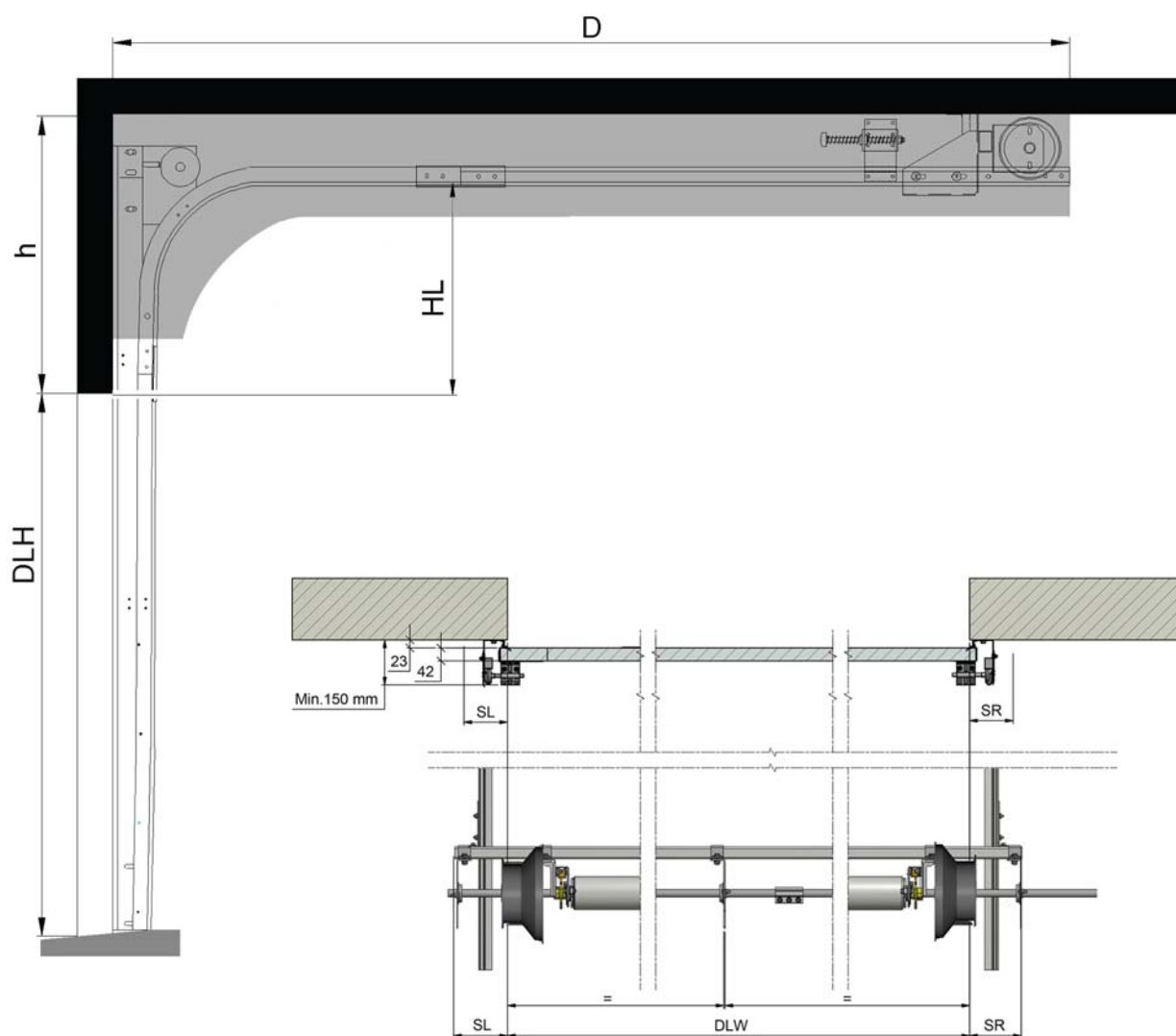
Side and top view:



5.2.4 Space requirements HHL

| | |
|--|---|
| h | HL+350 mm |
| SL/SR | 132 mm Manual, 228 mm Hoist-D/T, 278 mm Hoist-U, 304 mm Operator, 344 mm Operator+Hoist (with outer support bearing + 45 mm) |
| D | DLH - HL + 1100 mm |
| <p>For details see the specific building preparation drawings * We would advise the following doors to be installed on a frame, equipped with an A-65 top seal. Doors DLW > 6000 mm Doors DLW ≥ 4000 mm with a dark outside colour, frequently exposed to solar heat.</p> | |

Side view

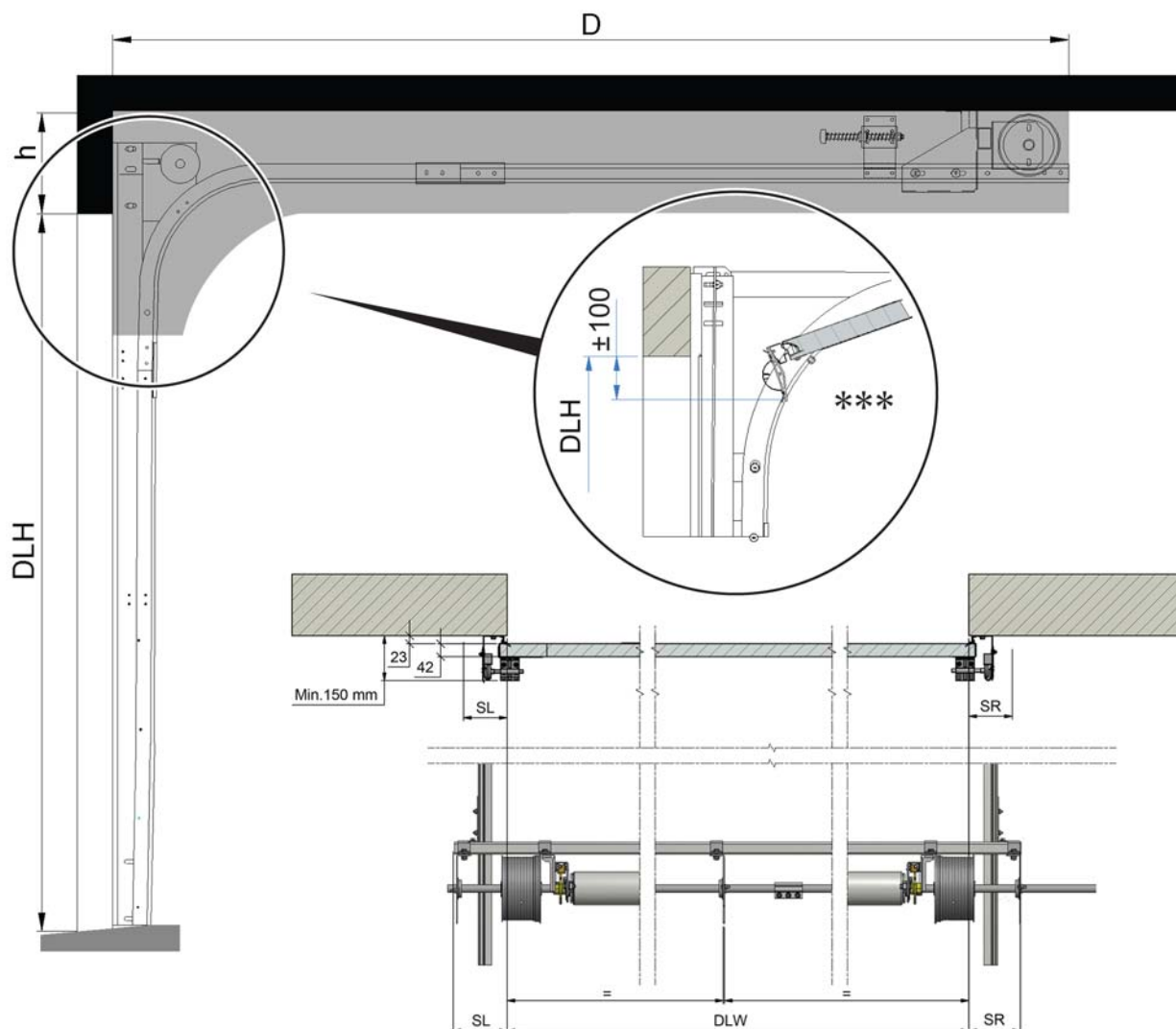


Top view

5.2.5 Space requirements LL

| | |
|-------|---|
| h | 265 mm (≤ 250 kg without passdoor) 300 mm (> 250 kg or passdoor) |
| SL/SR | 132 mm Manual, 228 mm Hoist-D/T, 278 mm Hoist-U, 304 mm Operator, 344 mm Operator+Hoist (with outer support bearing + 45 mm) |
| D | DLH + 1100 mm |
| | For details see the specific building preparation drawings *** With low threshold passdoor only |

Side and top view:



5.2.6 Space requirements VL

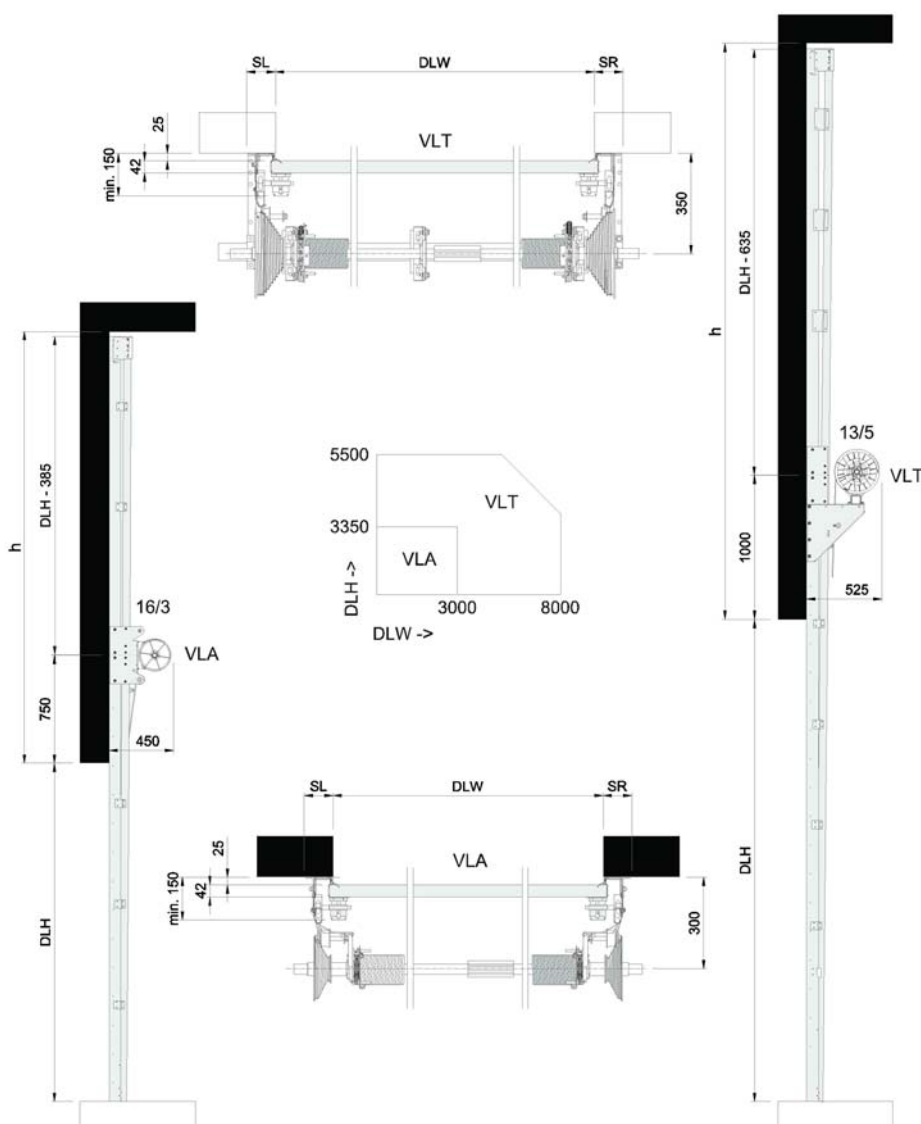
| | |
|-------|---|
| h | DLH + 365 mm |
| SL/SR | 110 mm Manual, 216 mm Hoist-D/T, 278 mm Hoist-U, 312 mm Operator, 352 mm Operator+Hoist (with outer support bearing + 64 mm) |
| D | VLA = 450 mm VLT = 525 mm (manual) VLT = 610 mm (operator) |

For details see the specific building preparation drawings

- VL doors: $DLW \leq 3000$ mm and $DLH \leq 3350$ = VLA = no beam installed
- VL doors: $DLW > 3000$ mm or $DLH > 3350$ = VLT = installed with beam to support the balancing system

We would advise the following doors to be installed on a frame, equipped with an A-65 top seal.

- Doors $DLW > 6000$ mm
- Doors $DLW \geq 4000$ mm with a dark outside colour, frequently exposed to solar heat.



6. Service

Preventive Maintenance Program and Modernization Services

As your entrances are part of your business flow, there's every reason to keep them working well. ASSA ABLOY Entrance Systems offers you a maintenance and modernization expertise to rely on. Our Maintenance Programs and Modernization Services are backed by a extensive expertise for all types of industrial door and docking systems, independent of brand. At your disposal is a team of dedicated expert technicians, proven through decades of maintenance, service and satisfied customers.

Preventive Maintenance Programs

Minimizing lost time, lost energy and unexpected hassle is our team's constant objective. Our service organization can support you 24/7 in maintaining all industrial door and docking systems, independent of brand. If you want to be one step ahead of break-downs, explore our portfolio of Pro-Active Care plans. Naturally, we also offer entrance upgrades to suit your specific wishes and business needs.

Pro-Active Care - Maintenance plans to fit your business

Regular maintenance can extend the lifetime of your equipment and help prevent unexpected problems. Our technician arrives on-site equipped with the knowledge and tools to service all automatic entrances, independent of brand.

• Pro-Active Bronze

The base on which all Pro-Active Plans are built provides the security of knowing that your equipment is regularly inspected and certified for safety, as well as performing optimally. It includes a number of planned on-site visits depending on your needs. Any unplanned service calls required during the term of the contract (including labor, travel and parts) are billed at special Pro-Active Care prices.

• Pro-Active Silver

This plan provides all the benefits of Pro-Active Bronze with the added advantage of labor and travel being included for service calls during regular business hours. The only additional charge would be for any parts that may be needed throughout the term of the contract.

• Pro-Active Gold

This plan provides the ultimate protection for your automatic entrance investment. It includes all the benefits of Pro-Active Silver, plus replacement of any parts required during an unplanned repair or planned maintenance visit. Pro-Active Gold is an excellent way to budget your automatic door expenses annually.

• Pro-Active Tailor-Flex

Our most flexible maintenance and service offering. The Pro-Active Care plan is designed by you, our customer. The plan allows you to balance your maintenance expenses against your real-world budget and presents the option to add or delete a number of maintenance elements to suit your budget goals, while meeting your overall performance and safety needs.

Modernization

Your entrances are a long-term investment, from which you always want the best. Products develop over time, so do regulations and your business. Let us help you increase energy savings and meet today's standards. We provide advice and modernization kits for outdated installations, ensuring your investment meet requirements and performs optimally for many more years to come.

| Re-Active Service | | Pro-Active Care | | | | |
|-------------------|---|-------------------|-------------------|-----------------|------------------------|---|
| | | Pro-Active Bronze | Pro-Active Silver | Pro-Active Gold | Pro-Active Tailor Flex | |
| | | ○ | ○ | ○ | ● | Other customized requests such as Response Time, Performance InfoPack and Advanced User Training |
| | | ○ | ○ | ● | ○ | Replacement of worn parts according to preventive Consumable Exchange Program |
| | | ○ | ○ | ● | ○ | Replacement of spare parts on breakdowns |
| | | ○ | ● | ● | ○ | Travel and labor for additional call-out visits |
| | | ● | ● | ● | ● | Preventive maintenance visits 1-4 times per year |
| | | ● | ● | ● | ● | Travel and labor for preventive maintenance visits |
| | | ● | ● | ● | ● | Response time and priority on call-outs <24h |
| | | ● | ● | ● | ● | Preventive planned maintenance that meets the most demanding standards in the market |
| | ● | ● | ● | ● | ● | Safety and quality checks according to applicable regulations and norms. Documentation of test results provided |
| ● | ● | ● | ● | ● | ● | Documentation of equipment status, assessment and service provided, all generated on site |
| ● | ● | ● | ● | ● | ● | Highly trained professional technicians with extensive knowledge, state-of-the-art tools and the right spare parts* |
| ● | ● | ● | ● | ● | ● | Dedicated Professional Customer Care Hotline |

● = Included as standard

○ = Available at special prices

* Well-stocked service vehicles with genuine and new spare parts

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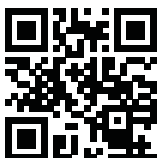
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