DOCO®
INTERNATIONAL

Installation manual

DS System for Highlift and Full Vertical

NL

TÜV SÜD
TÜV CERTIFIED
TORFV 6/091 (2006)

CE

Inhoudsopgave

Pag.
1. Symbols and warning signs 3
2. General warnings 3
2.1 Safety requirements regarding installation and use 3
2.2 Warranty and liability 4
3. Directives and standards 4
The following directives and standards were used during the design, production and installation of these tracks. 4
4. Installation 5
4.1 Installation details 5
4.2 Fasteners 6
4.3 Tools 6
4.4 Fastening Torque 6
4.5 Necessities for the dock shelter system 7
4.5.1 Pulley with mounting brackets 7
4.5.2 Traingle bracket with support 8
4.5.3 Power unit 8
4.6 Mounting the dock shelter parts 9
4.6.1 Mounting the pulley 9
4.6.2 Mounting the triangle plate 11
4.6.3 Mounting the power unit 13
Appendix A: Dock shelter > 1100mm 16
Appendix B: Dock Shelter < 1100mm 17
Appendix C: Dock Shelter Vertical Lift 18

1. Symbols and warning signs

General DANGER symbol!!
Attention symbol!!
Carefully read the text when you see this symbol!!

Symbol: risk of injury!!
Carefully read the text when you see this symbol!!

Use safety gloves

Use safety glasses

Wear a helmet

2. General warnings

This Installation Manual was written specifically for use by qualified personnel and is therefore not suitable for apprentices or 'DIY-ers'.
If anything regarding installation and/or maintenance is not clear, please contact DOCO International.

To prevent serious personal injury, all directions and instructions in this manual should be carefully read and observed.

- This manual describes the installation of the Dock Shelter parts, use the installation manual for “Industry Fitting Sets with Torsion Springs” for information about mounting the tracks and other parts not mentioned in this manual.
- Your fitting set is designed in accordance with the latest European standards, however you should check whether it complies with your local national standards.
- Adding or removing parts may have an adverse effect on the operation and thus the safety of the final sectional gate.
- All indications regarding right/left installation are seen from the place of installation, i.e. from the inside looking out!
- Unless stated otherwise, all measurements are in millimetres.
- After installation, check whether the CE mark has been affixed and completed.
- This manual should be carefully stored.
- We reserve the right to modify specifications without written notice.

2.1 Safety requirements regarding installation and use

- The garage gate may only be installed, connected and commisioned by skilled personnel.
- When working on the electrics, always ensure the power is and remains isolated!
- Never bypass safety features!
- Some parts have sharp edges - use safety gloves.
- Never operate the sectional door if you see that the safety features are damaged.
- During installation / maintenance of the garage door, wear at least gloves, safety shoes and, when drilling, safety goggles!
- Always ensure a stable footing when working.
- Secure the installation / maintenance site using appropriate safety devices to keep others (children) at distance.
- Maintenance should only be performed by a specialist firm and/or qualified personnel.
- Provide adequate lighting.
- Only use suitable tools, especially for tensioning torsion springs.

2.2 Warranty and liability

Unprofessional installation, unauthorized alterations (other parts) to the sectional gate or alterations to the drive that are not in compliance with this manual will invalidate the warranty and thus will release the manufacturers from any liability.
This also includes damage resulting from incorrect operation, failure to follow the instructions in this manual and/or poor maintenance and/or care.

3. Directives and standards

The following directives and standards were used during the design, production and installation of these tracks.

98/37/EEC	**Machine Directive**
89/106/EEC	**Construction Equipment Directive**
89/336/EEC	**EMC Directive**
73/23/EEC	**Low Voltage Directive**
EN 12604:2000	Mechanical aspects; requirements and classification
EN 12605:2000	Mechanical aspects; testing methods
EN 12445:2000	Safety for powered gates; testing methods
EN 12453:2000	Safety for powered gates, requirements
EN 13241-1:2003	Door and gate product standard

Doco international developed this fitting set to be used in industrial doors, definition:

- Sound pressure <70 dBa
- Temperature range –20° tot +40°
- Lifespan 25000 cycles

DOCO International has had the “product testing” of these fitting sets carried out by the TÜV Nord-cert institute in Germany, registered as Notified Body No. 0032.
Documents of this “product testing” may be requested from DOCO.

The person or company which installs this sectional door needs to check if the door is safe with the used Electrical Operator and the selected panels, see ITT report appendix A&B.

This “product testing” does NOT include any access door. If you DO install an access door, additional “product testing” is needed. This is the responsibility of the garage door manufacturer.

This manual describes the installation of a sectional door using only DOCO International parts. The installation of parts not specified or other parts not described in this manual is the responsibility of the end producers of the garage port. They are also responsible for the correct CE certification of the sectional door.

4. Installation

The necessary mounting equipment to mount the rail set against the wall or the ceiling is not part of the fitting set! It's the responsibility of the installer to make sure that the wall or ceiling is strong enough to mount the Industrial door against.. The installer is also responsible to use the correct fasteners for the correct background (Steel, Concrete or wood).

4.1 Installation details

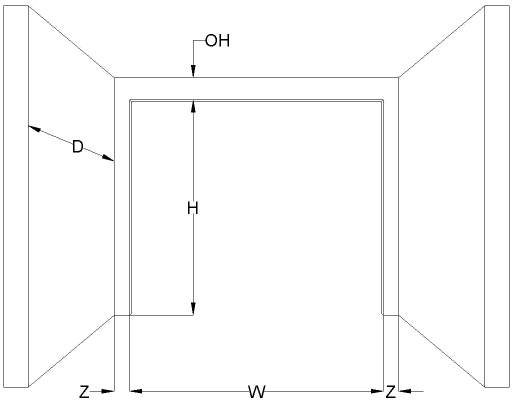
- Make sure the location for the track sets to be installed is level and that the construction is strong enough to carry the track sets.
- Ensure the floor is level and devoid of irregularities. If not, fill in.
- Before starting on the installation, assess whether the mounting place fulfils the minimum requirements

Scope:

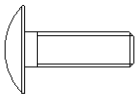
- Max. width (w)= 4000 mm
- Max. height (h)= 4000 mm
- Max. weight = 200 kg.

W = clear width (CW)
H = clear height
OH = clearance above
Z * = side clearance*
D = installation depth

* minimum 105mm



4.2 Fasteners

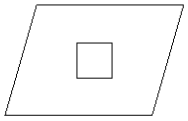


14021 M8 x 25 *

14010 Trackbolts M8 (6x)

M8 Nutlocks DIN 985 *

M8 Spacers DIN 125 *

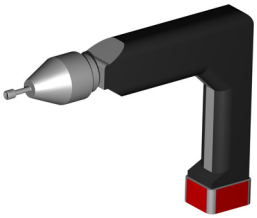


24620 Paro clamb plate (4x)

* Number of fasteners depend on how many brackets are used (20075)

4.3 Tools

*Used with a steel background.



* Ø8,5 Ø8 Ø10,5

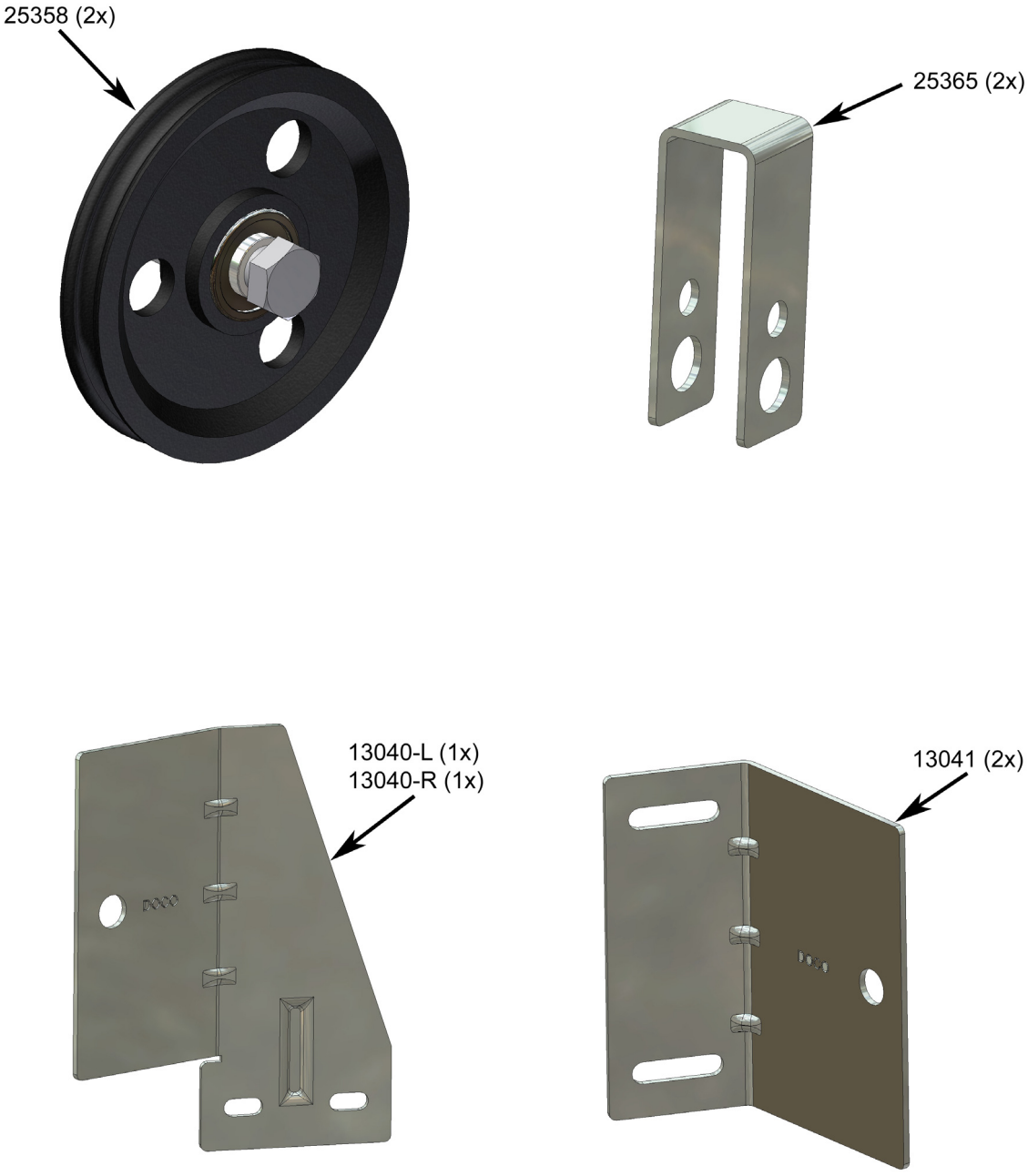
* Key width 13 / 24 (2x) / 17

4.4 Fastening Torque

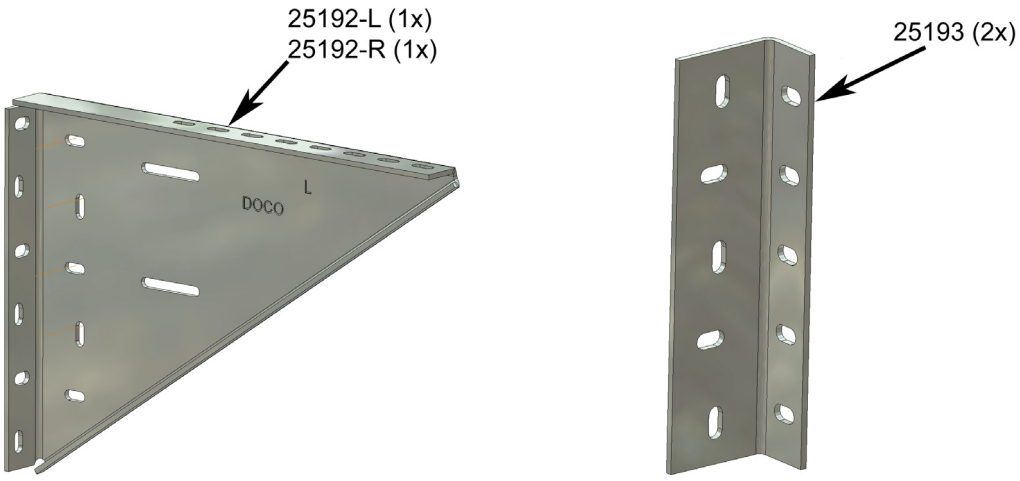
20 Nm for all bolted connections in the dock shelter system.

4.5 Necessities for the dock shelter system

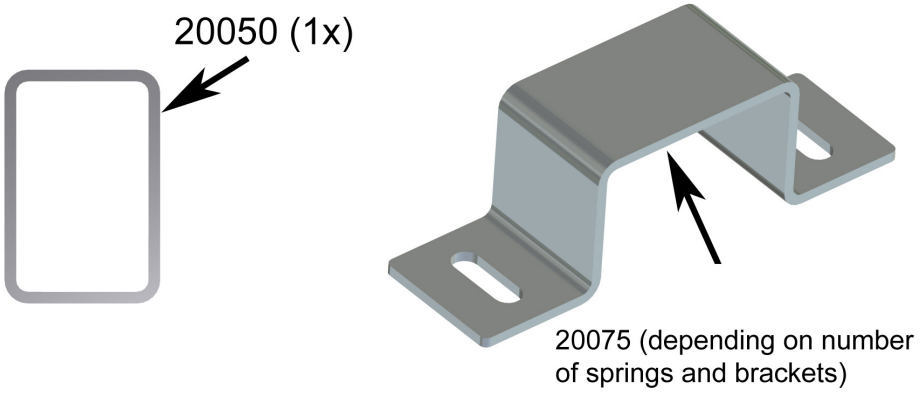
4.5.1 Pulley with mounting brackets

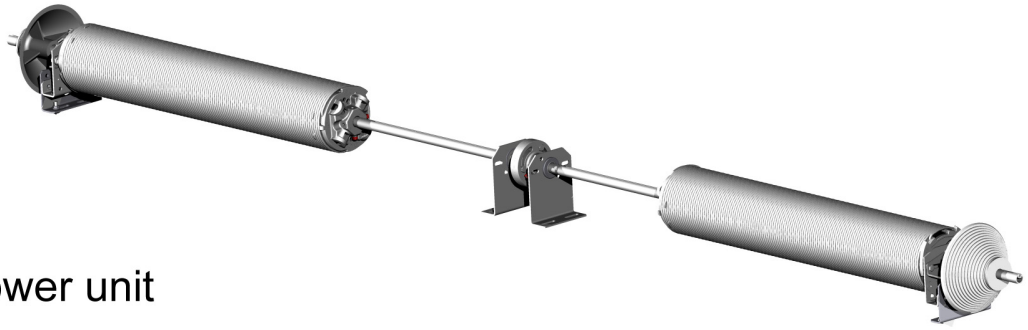


4.5.2 Traingle bracket with support



4.5.3 Power unit



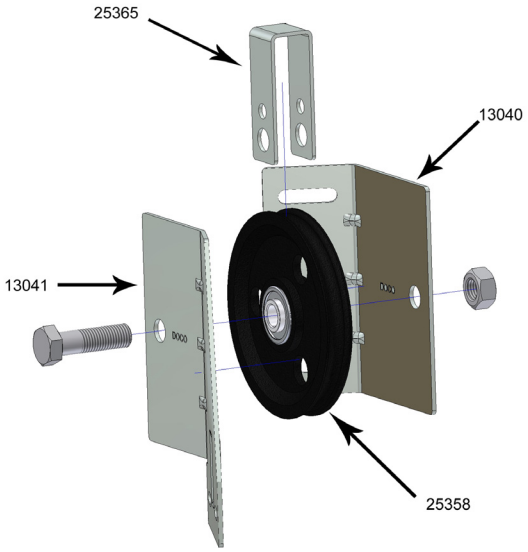


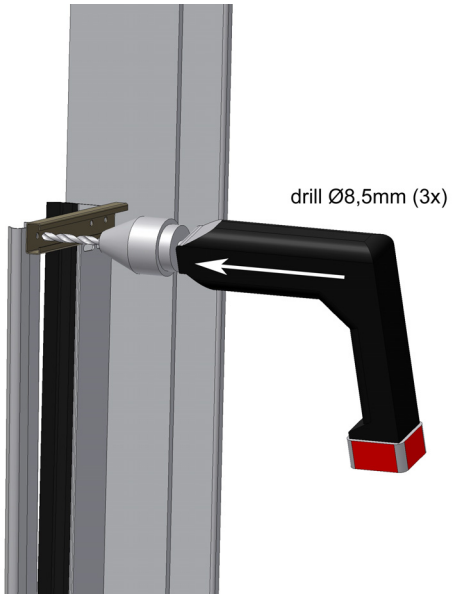
Power unit

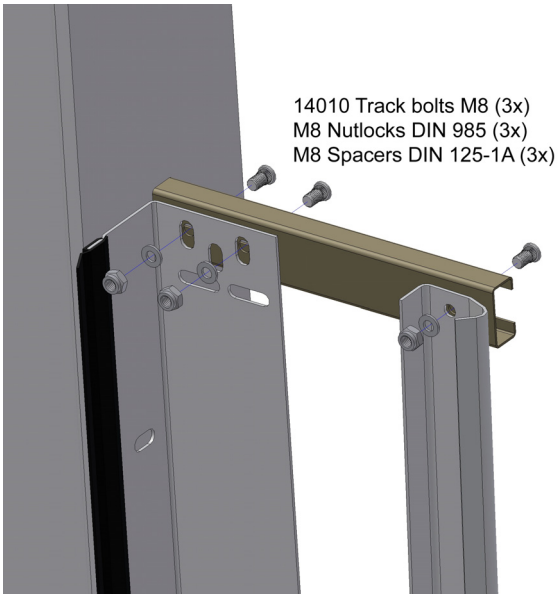
4.6 Mounting the dock shelter parts

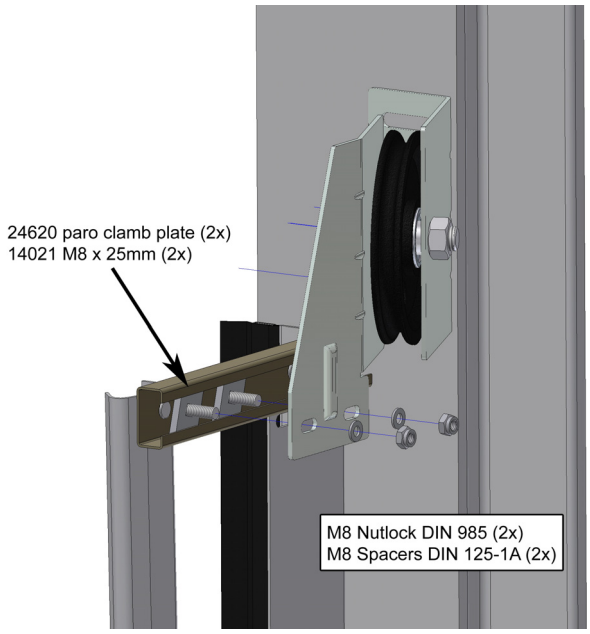
In this manual, we mount the parts on a steel construction background, for other backgrounds, ask your building specialist for the correct fastening methods. Min. Force on each fastener: 1000 Newton

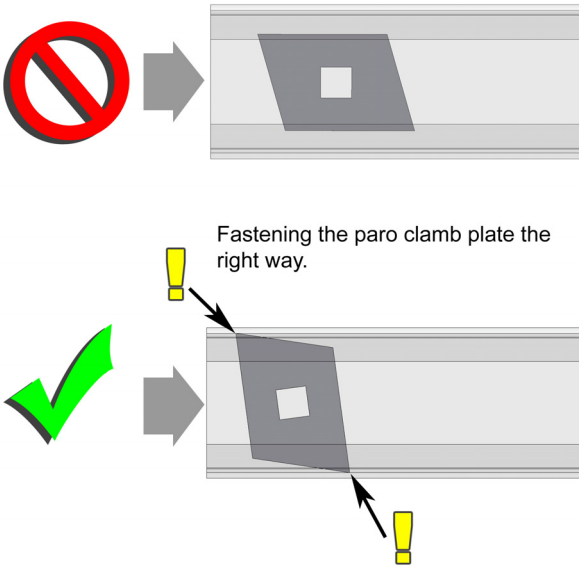
4.6.1 Mounting the pulley

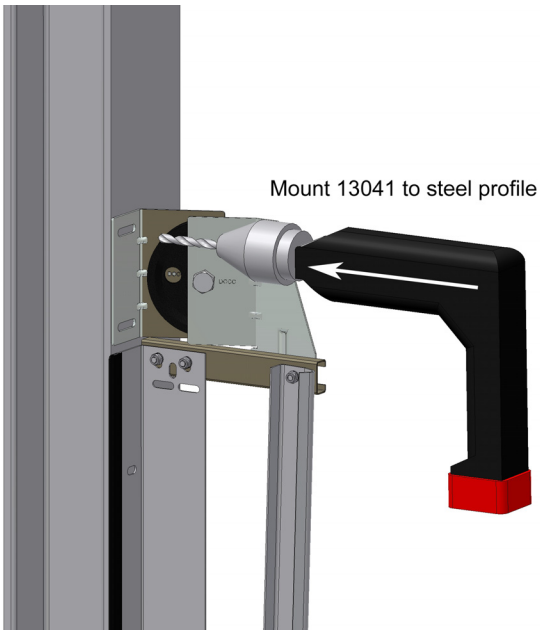












For steel profile:

1. Drill holes Ø 10,5mm
2. Use M10 bolts DIN 933 (2x) and M10 Nut locks DIN 985 (2x)
3. Fasten all the nuts and bolts and repeat action 4.7.1 on the other side of the door.
4. Place the cable** around the pulley

Cable diameters**:

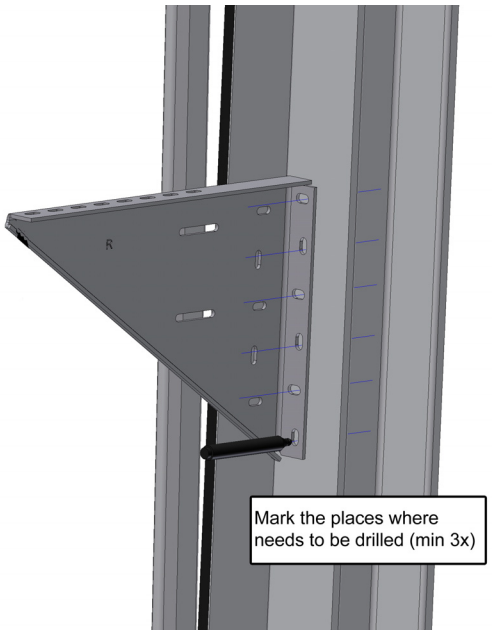
DOCO art.	Tensile strength	Diameter	Min. breaking force	Max. door weight inc. 6x safety factor.
25110	1770 N/m^2	3 mm	499 kg.	166 kg. Max
25111	1770 N/m^2	4 mm	887 kg.	295 kg. Max
25112	1770 N/m^2	5 mm	1390 kg.	463 kg. Max.
25113	1770 N/m^2	6 mm	2000 kg.	666 kg. Max.

4.6.2 Mounting the triangle plate

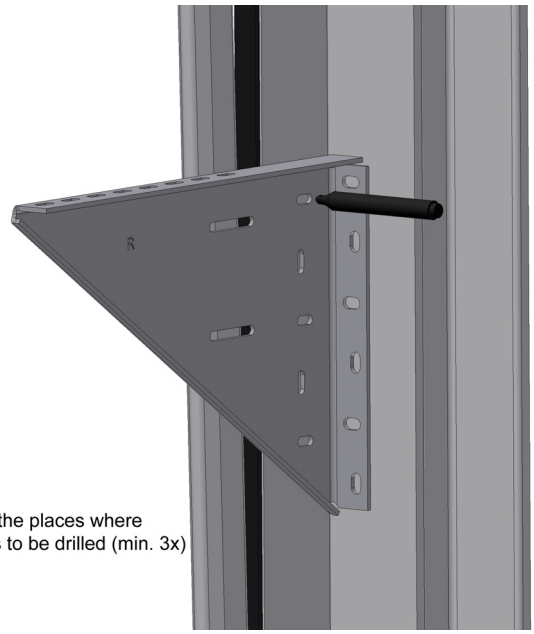
For mounting the triangle plate, there are two methods.

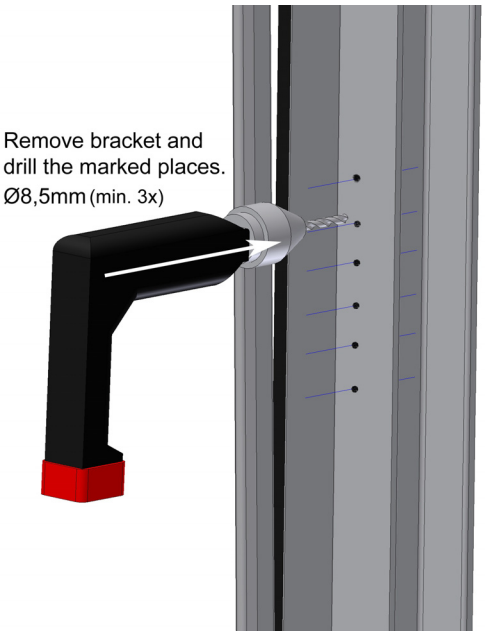
- Method A: when having enough side space, only use the triangle bracket 25192 (min. space 100mm necessary).
- Method B: when having not enough side space to mount the 25192, you will have to use the support bracket 25193

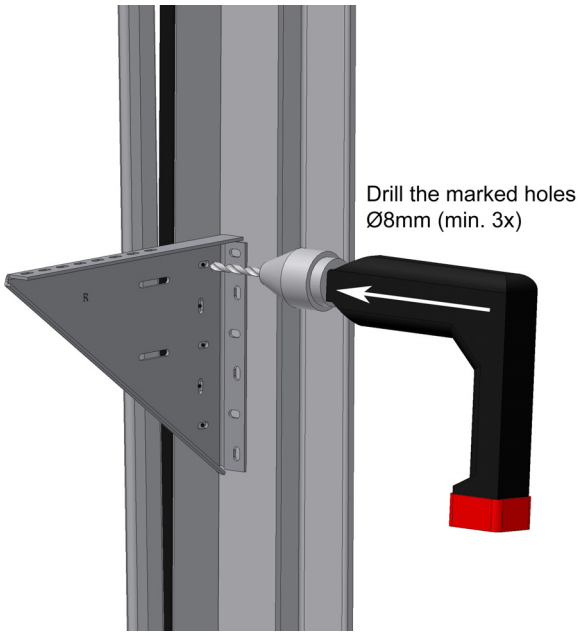
Method A



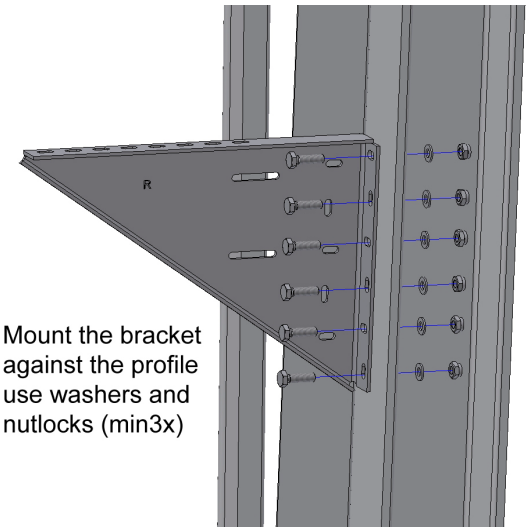
Method B







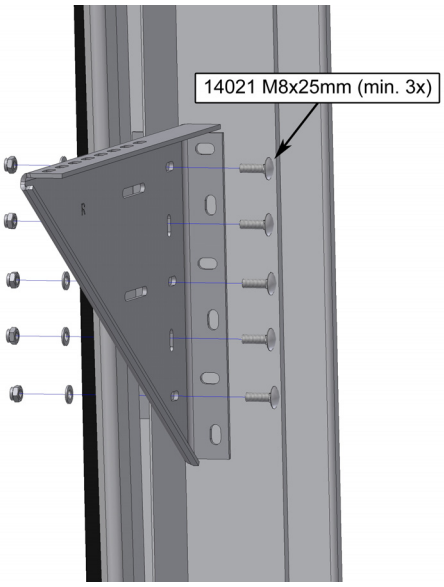
Method A



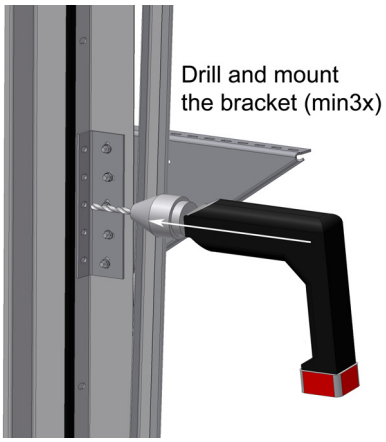
Mount the bracket against the profile use washers and nutlocks (min3x)

Method B

Mount the 25192 bracket against the 25193 bracket use M8 nutlocks DIN 985 and washers (min. 3x)

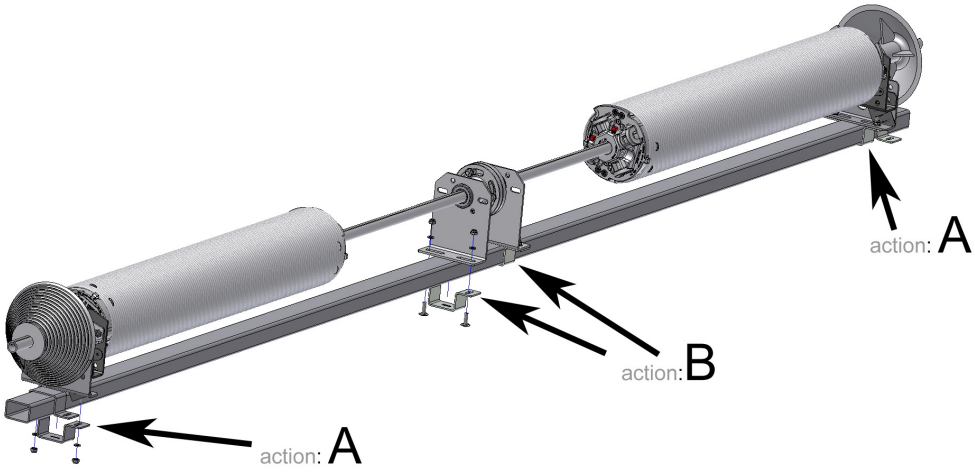


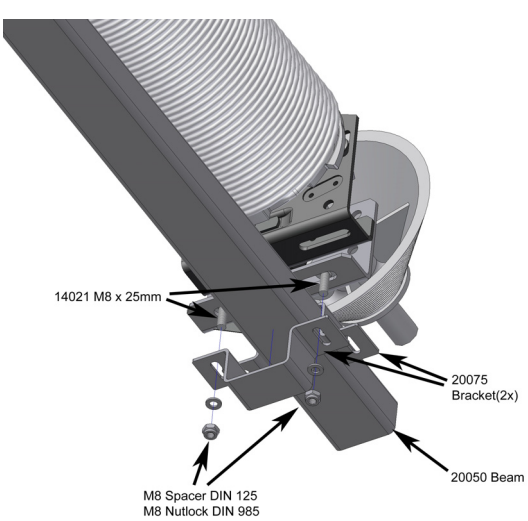
- Drill holes Ø 8,5mm
- Use M8 bolts DIN 933 (3x) and M8 nut locks DIN 985 (3x)

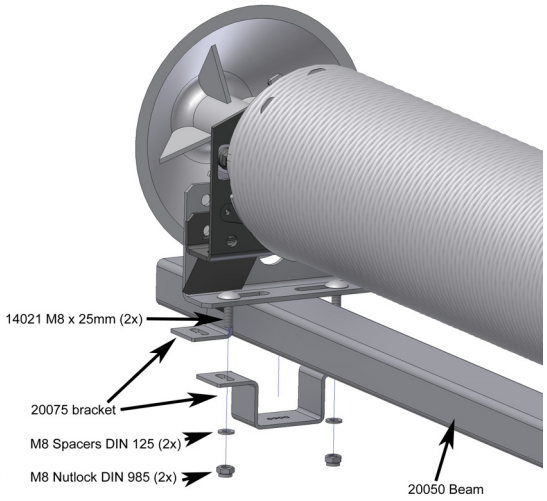


4.6.3 Mounting the power unit

Assemble the power unit on the floor (according to the power unit installation manual).
Mount the power unit onto the beam:
When assembling the power unit on the floor place wooden beams underneath it, for easier forklift access.
(For beam lengths, shaft lengths and mounting dimensions see the appendix A, B or C)

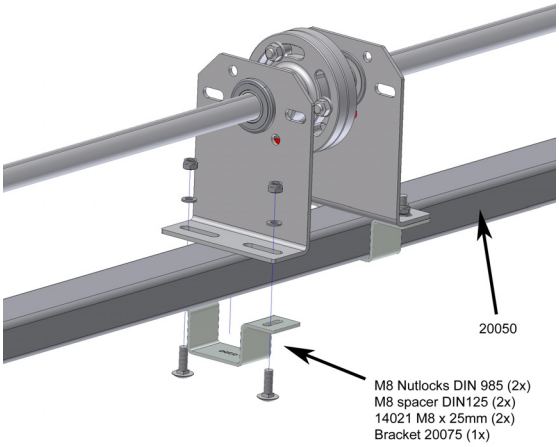




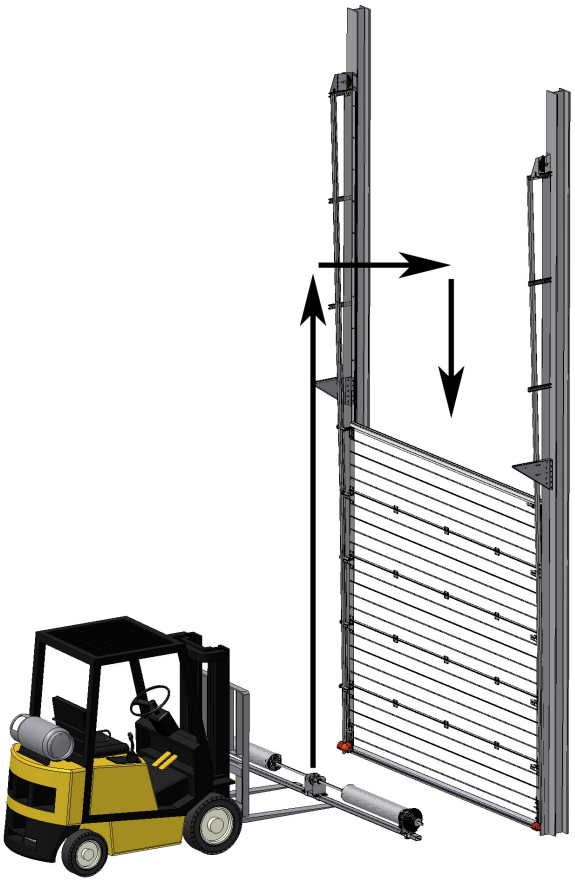


action: A

Repeat action A or B on every 20075 bracket that needs to be mounted.

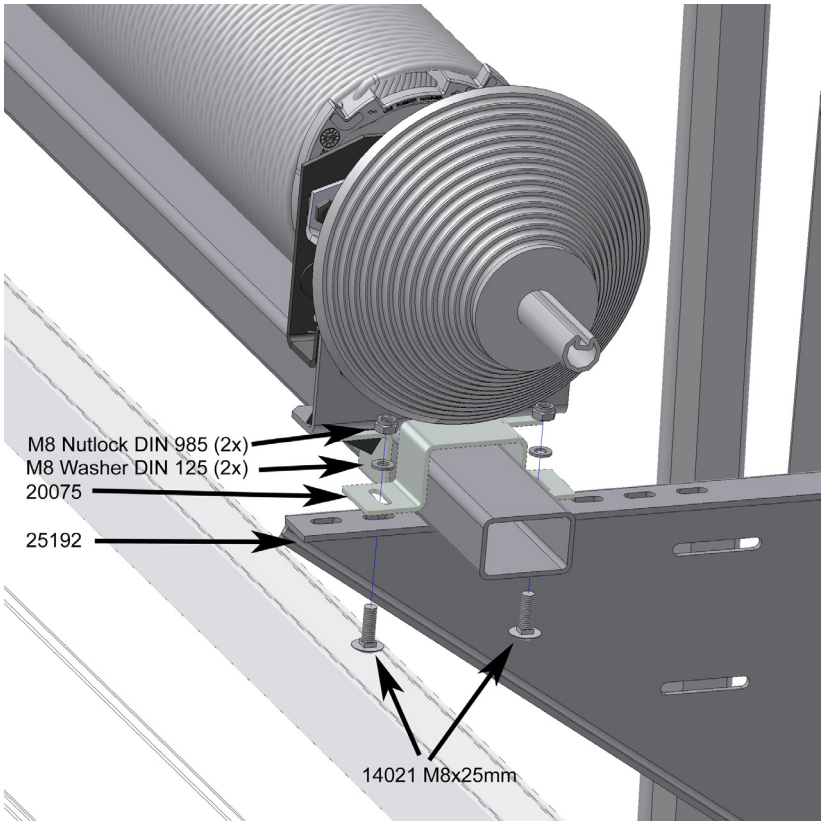


action B:



Use a forklift or another lift device to lift the power unit onto the triangle bracket.

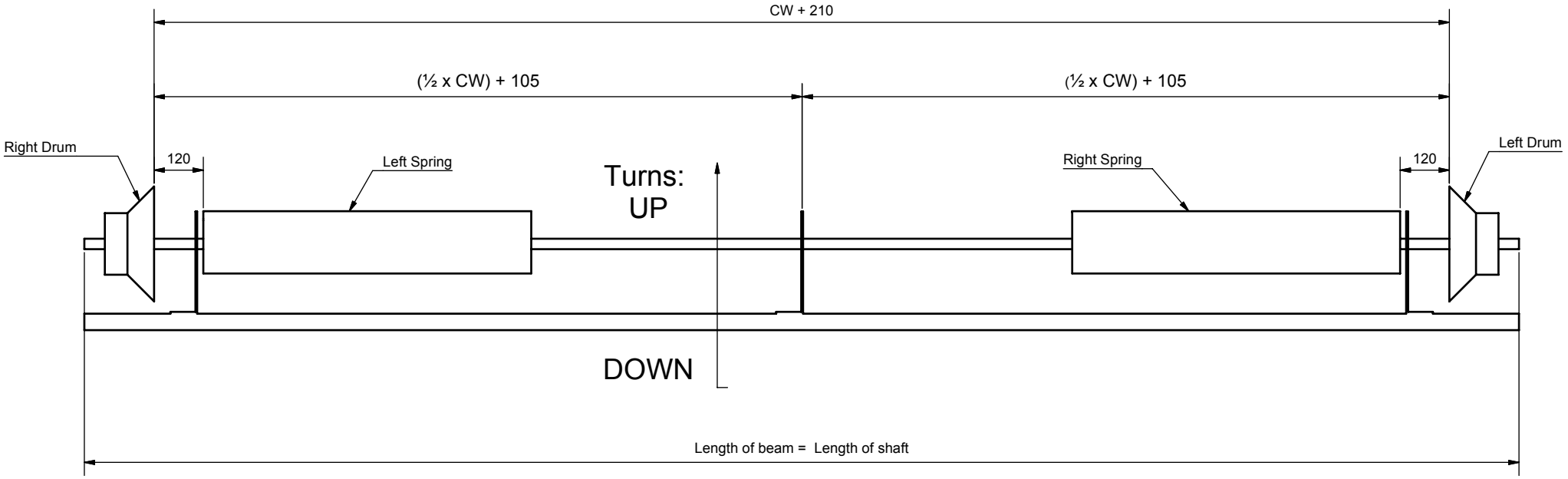
Mounting the power unit onto the triangle plate.



Repeat on the other side.

Complete the installation of the power unit according the industrial door system manual.

Appendix A: Dock shelter > 1100mm



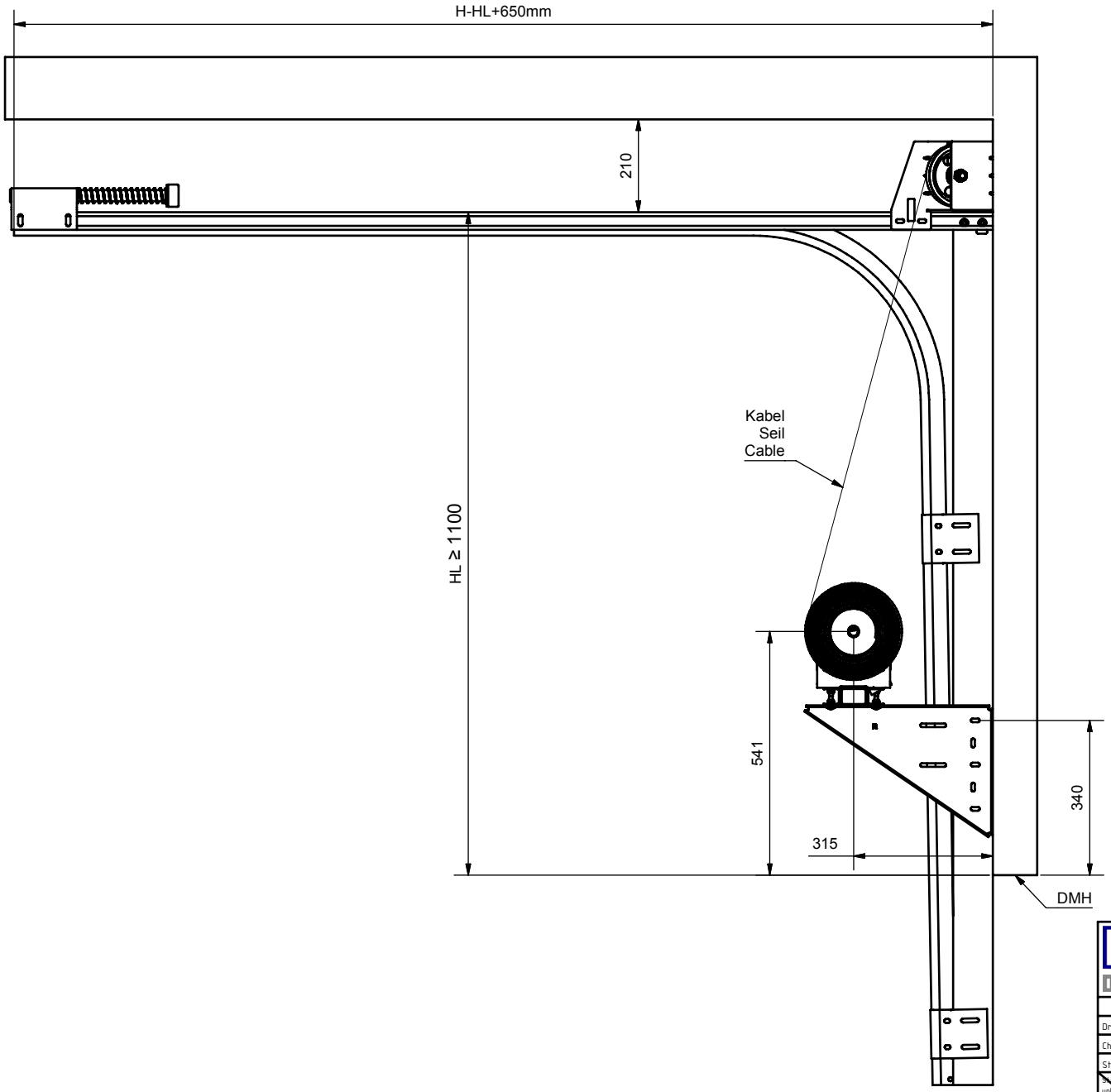
Manual operated door:
Length of beam = length of shaft
Manual operated = door width + 250 mm
Chain hoist / E-Operated = door width + 500 mm

DOCO INTERNATIONAL	Material :	Finish :
	Part number :	DOCKHL>1100mm
	Description :	Dock Shelter Highlift >1100mm
Drawn 28-11-2006 Luc Muris	Drawing nr.:	C_DOCKHL>1100-1
Checked	REV :	0
Standard	Page :	1
Units : mm		A3

Standard Tolerances unless otherwise specified
x ± 0.5 mm
x.x ± 0.01 mm
Angle ± 1°

Not valid

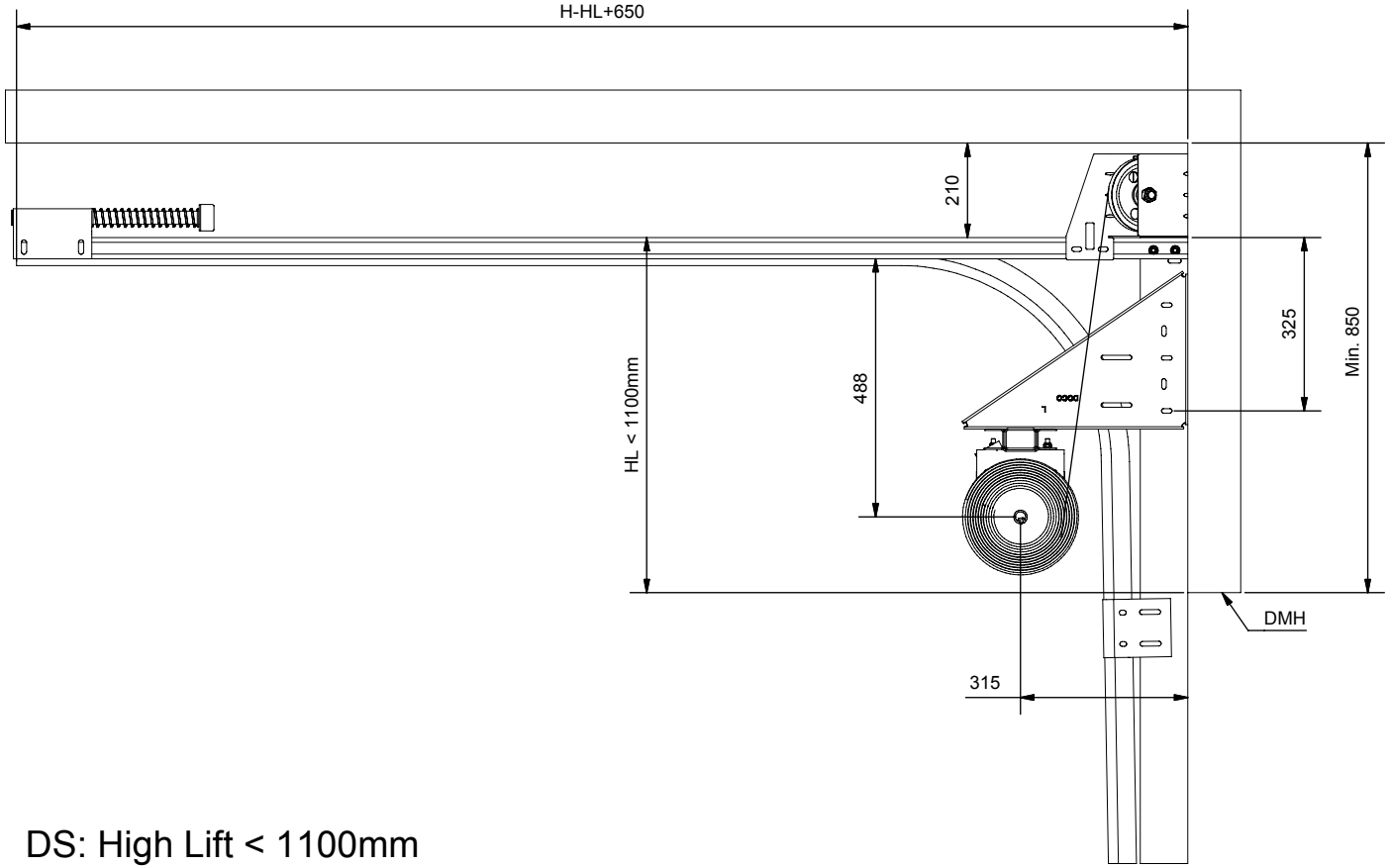
A (1 : 10)



High lift ≥ 1100mm

DOCO INTERNATIONAL	Material :	Finish :
	Part number :	DOCKHL>1100mm
	Description :	Dock Shelter Highlift >1100 mm
Drawn 21-11-2006 Luc Muris	Units : mm	
Checked		
Standard		
Standard Tolerances unless otherwise specified x ±0.5 mm x.x ±0.01 mm x.xx ±0.01 mm Angle ± 1°	Drawing nr.: C_DOCKHL > 1100	REV : 0
Not valid		Page : 1 / A3

Appendix B: Dock Shelter < 1100mm



DS: High Lift < 1100mm

DOCO INTERNATIONAL

	Date	Name
Drawn	21-11-2006	Luc Muris
Checked		
Standard		

Standard Tolerances unless otherwise specified
x ± 0.5 mm
x.x ± 0.01 mm
x.xx ± 0.01 mm
Angle ± 1°

Units : mm

Not valid

Material :

Finish :

Part number : DOCKHL<1100mm

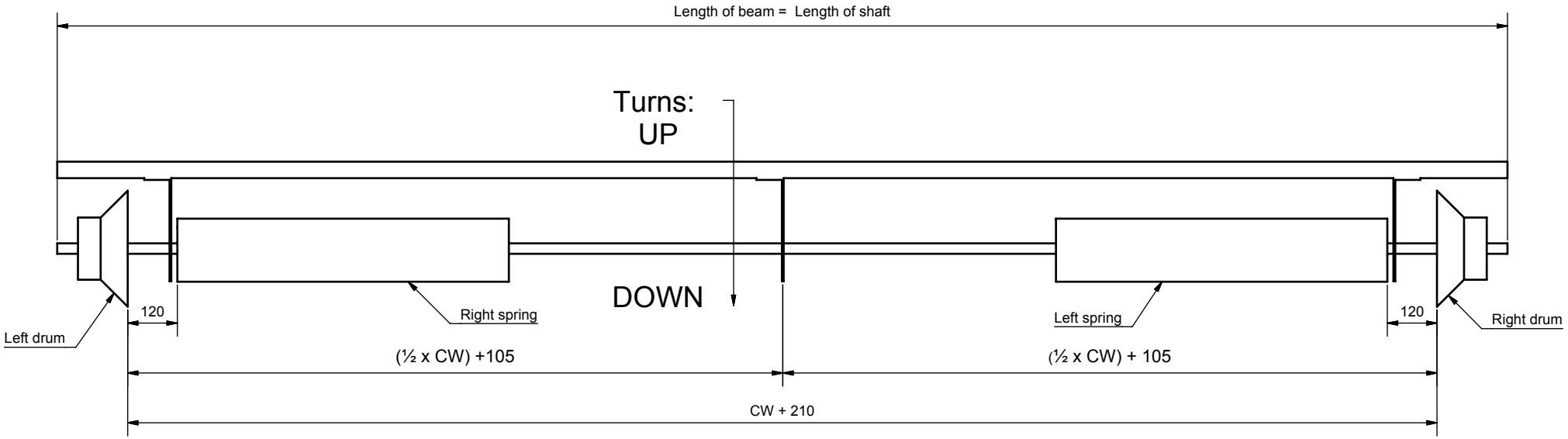
Description : Dock Shelter Highlift <1100mm

Drawing nr.: C_DOCKHL<1100

REV : 0

Page : 1

A3



Manual operated door:
Length of beam = length of shaft
Manual operated = door width + 250 mm
Chain hoist / E-Operated = door width + 500 mm

DOCO INTERNATIONAL

	Date	Name
Drawn	28-11-2006	Luc Muris
Checked		
Standard		

Standard Tolerances unless otherwise specified
x ± 0.5 mm
x.x ± 0.01 mm
Angle ± 1°

Not valid

Units : mm

Material :

Finish :

Part number : DOCKHL<1100mm

Description : Dock Shelter Highlift <1100mm

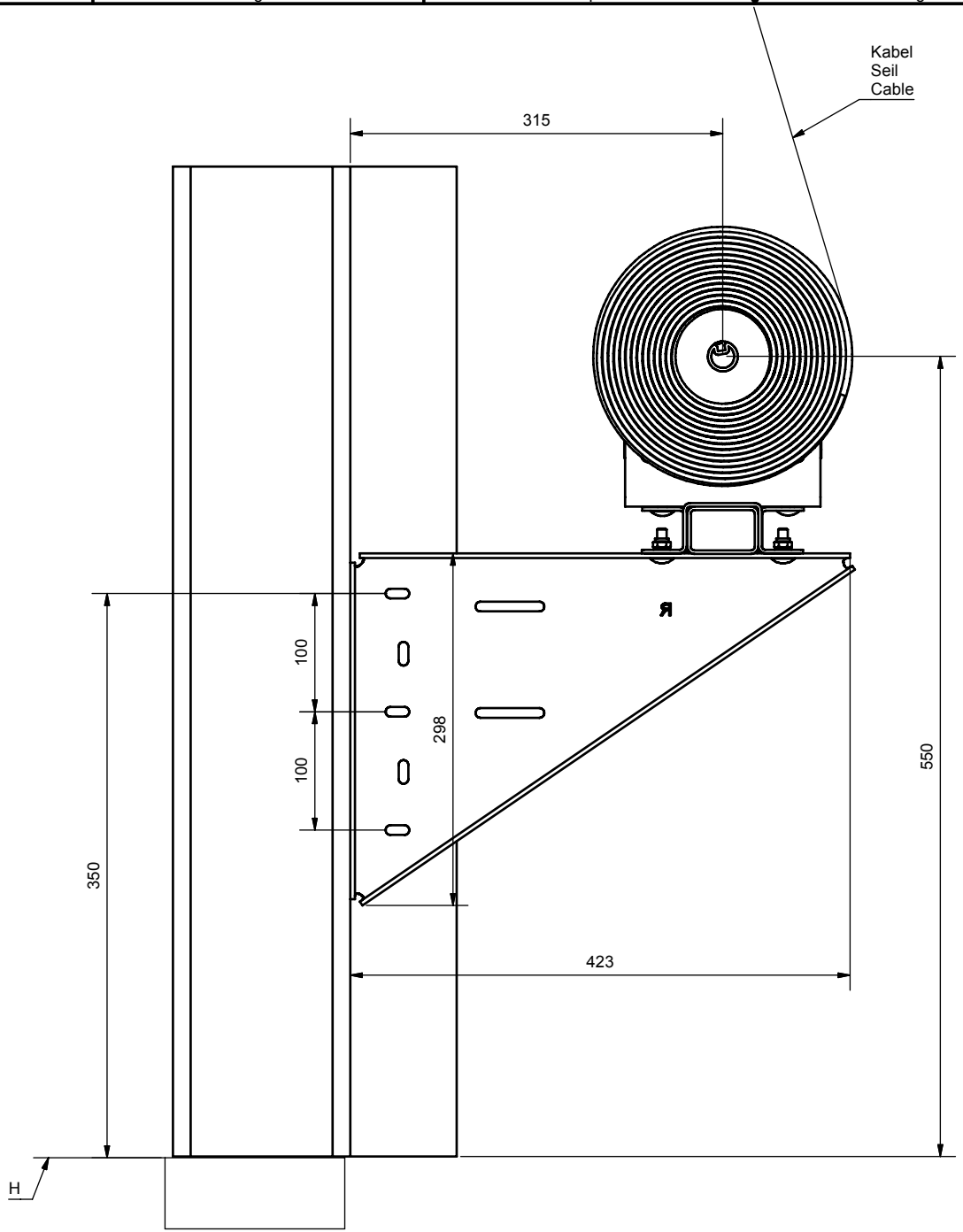
Drawing nr.: C_DOCKHL<1100-1

REV : 0

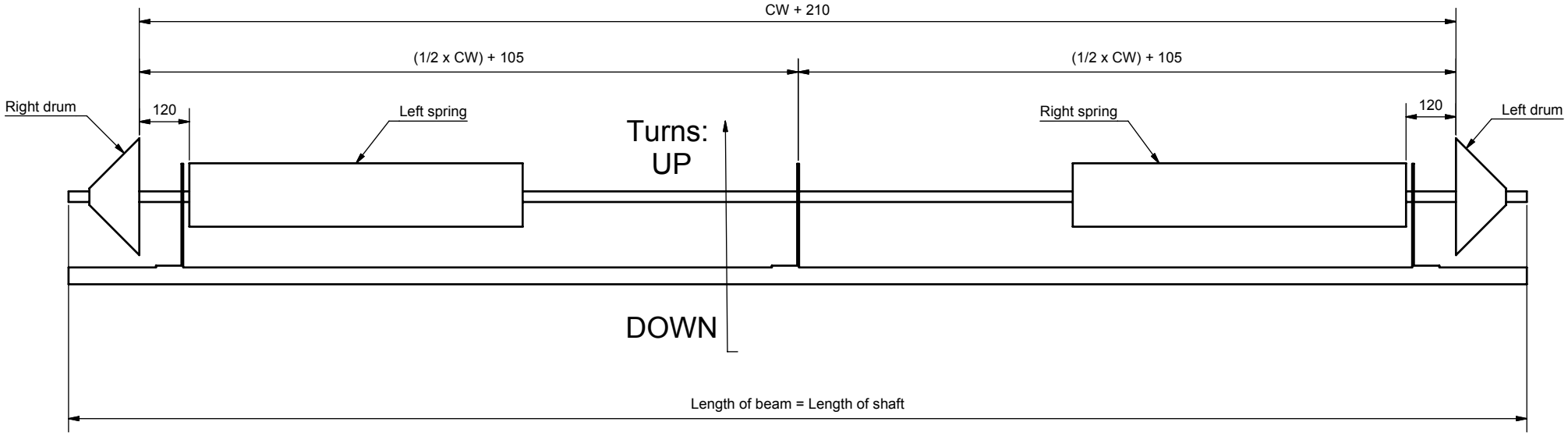
Page : 1

A3

Appendix C: Dock Shelter Vertical Lift



DOCO INTERNATIONAL	Material :	Finish :
	Part number : DOCKVL	
	Description : Dock Shelter Vertical Lift	
Drawn 21-11-2006 Luc Muris	Units : mm	
Checked		
Standard		
Standard Tolerances unless otherwise specified x ±0,5 mm x.x ±0,1 mm x.xx ±0,01 mm Angle ± 1°	Drawing nr.: C_DOCKVL	REV : 0
		Page : 1
		A3



Manual operated door:
Length of beam = length of shaft
Manual operated = door width + 250 mm
Chain hoist / E-Operated = door width + 500 mm

DOCO INTERNATIONAL	Material :	Finish :
	Part number : DOCKVL	
	Description : Dock Shelter Vertical Lift	
Drawn: 28-11-2006 Luc Muris		
Checked		
Standard		
Standard Tolerances unless otherwise specified: x ±0,5 mm; x.x ±0,1 mm; x.xx ±0,01 mm; Angle ± °	Units : mm	
	Drawing nr.: C_DOCKVL	REV : 0
		Page : 1 / A3