Level Access, Dock Levellers and Personnel Doors (Stertil)

Contents

Stertil
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winvic.co.uk

Contents

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Certificates/Warranties/Guarantees

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Scope of Works

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CDM Documentation

Site Name: Plot 5
Segro East Midlands Gateway Logistics Park
Derby
DE74 2DL

Date: 22.05.2023

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Section 1

Scope of Works

Supply and installation of

78 nr Dock Levellers
78 nr Dock Shelters
78nr Thermadoors
6nr Level Access Doors
78 nr Dock Bumpers
78 nr Traffic Lights
78 nr Dock Lights
78 nr Wheel Guides
16 Personnel Doors

Section 2

Suppliers Details

Stertil UK Ltd
Unit A,
Brackmills Business Park,
Caswell Road,
Northampton,
NN4 7PW

Telephone: 0870 770 0471
Fax: 01604 765181

Email: info@stertiluk.com

Section 3

Manufacturers Details

Stertil BV
Postbus 23
9288 ZG Kootstertille
Netherlands

Dok-Tec
Unit D7d Avondale Works
Woodland Way
Kingswood
Bristol
BS15 1PA

Section 4

Manufacturers Manuals

See Appendix 1

Section 5

Emergency Procedures

In the event of an emergency whilst operating the equipment the user should adhere to the following procedure.

- Immediately halt operation of the equipment
- Isolate the equipment by switching off the electrical supply at the mains on/off switch located on, or adjacent, to the control panel
- Cordoned off the area and label the equipment as shut down to clearly identify that it should not be used
- Contact Stertil UK Ltd

In house emergency procedures should also be followed and duty managers for operations, health and safety and fire wardens should be advised.

Section 6

Maintenance and Demolition

Removal or decommissioning of the equipment should be referred to the approved installers Stertil UK Ltd.

Section 7

COSHH Recommendations

All substances should be supplied with the relevant COSHH data sheets

Section 8

Technical Specifications

Refer to manuals in Appendix 1

Section 9

Test Certification & Handover Documents

To follow once complete

Or

Refer to appendix 2

Section 10

As Built Drawing Amendments

Standard drawings enclosed in Appendix 1.

Amendments as listed below.

Certificates/Warranties/Guarantees

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ELECTRICAL INSTALLATION SHEET & TEST CERTIFICATE

Installation Order No: No: 193552

DATE	COMPUTER REF No	STERTIL ENGINEER
15-05-23	1036833	S. PEABODY

SITE NAME AND ADDRESS	LOCATION OF EQUIPMENT (BAY NO.)
Plots, Segro East Midlands Gateway Logistics Park, Derby, DE74 2DL	All of site 78 - Bays, 6 - Level access

Please ensure any additional checks which are required are carried out in accordance with the installation manual and spec sheets.

ELECTRICAL SUPPLY Stertil UK assume that the requested supply for our equipment complies with current BS EN 7671 Wiring Regulations.

1 PH 230v	3 PH 400v	PROTECTIVE DEVICE TYPE BS-EN	NOM. RATING (A)
	✓	Unknown	Unknown

EQUIPMENT	MAX CPC CONTINUITY (OHMS)	VISUAL INSPECTION OF ELECTRICAL INSTALLATION SATISFACTORY	EQUIPMENT INCLUDING ALL SAFETY DEVICES WORKING CORRECTLY	SERIAL NUMBER
Door	0.04	✓	✓	
Dock leveller	0.06	✓	✓	
Containment	0.01	✓	✓	
Shelter	N/A	✓	✓	
Combilok	N/A			
Dock light	0.03	✓	✓	
Traffic light	N/A 24v	✓	✓	

COMMENTS

Installation & Commission of;

78 x Bay doors Complete
6 x Level access doors. as per spec. Fit for Use.

INSPECTION AND TESTING

I certify that the electrical installation detailed above has been, inspected, tested and commisioned, to comply with the current edition of regulations for electrical installations and the manufacturers guidelines.

Stertil UK Signature:

Print: S. PEABODY

Test instrument Serial No.(s): A030417

I confirm the undersigned representative of Stertil UK Ltd has provided the following:

1. Provided operational training on each of the items listed above YES / (NO)
2. Demonstrated the operation of safety devices where fitted YES / (NO)

Customer print: Not present

Sign:

Stertil UK print:

Sign:

N.B. If a further/certified demonstration or training is requied please contact the installation department.

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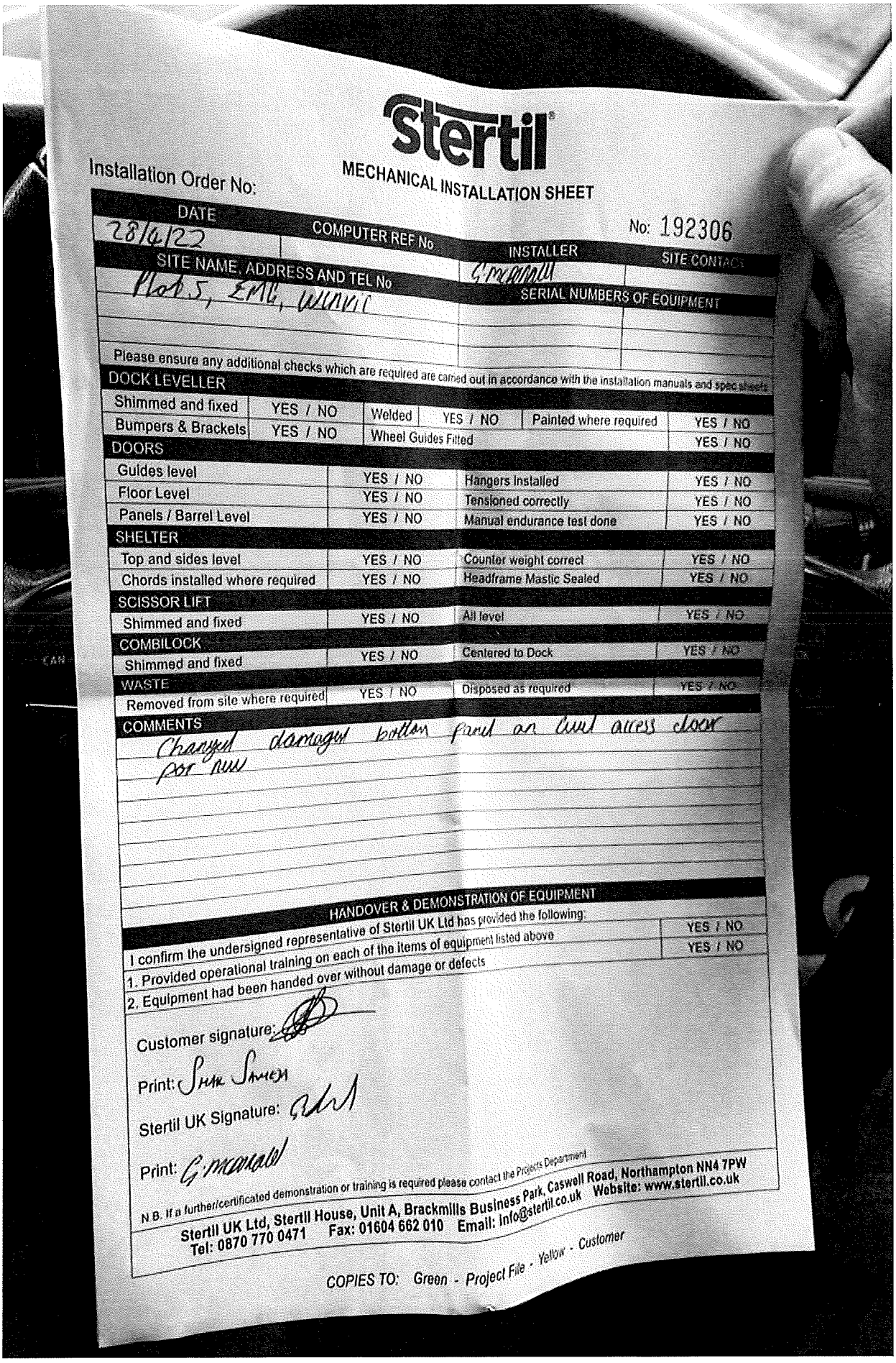

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MECHANICAL INSTALLATION SHEET

Installation Order No: No: 192306

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
28/6/22		G Mcarroll	

SITE NAME, ADDRESS AND TEL No: Plot 5, EMG, Wirral

SERIAL NUMBERS OF EQUIPMENT:

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

DOCK LEVELLER					
Shimmed and fixed	YES / NO	Welded	YES / NO	Painted where required	YES / NO
Bumpers & Brackets	YES / NO	Wheel Guides Fitted			YES / NO
DOORS					
Guides level	YES / NO	Hangers Installed			YES / NO
Floor Level	YES / NO	Tensioned correctly			YES / NO
Panels / Barrel Level	YES / NO	Manual endurance test done			YES / NO
SHELTER					
Top and sides level	YES / NO	Counter weight correct			YES / NO
Chords installed where required	YES / NO	Headframe Mastic Sealed			YES / NO
SCISSOR LIFT					
Shimmed and fixed	YES / NO	All level			YES / NO
COMBILOCK					
Shimmed and fixed	YES / NO	Centered to Dock			YES / NO
WASTE					
Removed from site where required	YES / NO	Disposed as required			YES / NO

COMMENTS

Changed damaged button panel on wall access door for new

HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Stertil UK Ltd has provided the following:	
1. Provided operational training on each of the items of equipment listed above	YES / NO
2. Equipment had been handed over without damage or defects	YES / NO

Customer signature:

Print: Shak Sameem

Stertil UK Signature:

Print: G Mcarroll

N.B. If a further/certificated demonstration or training is required please contact the Projects Department

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MECHANICAL INSTALLATION SHEET

Installation Order No: No: 192295

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
20/4/23			

SITE NAME, ADDRESS AND TEL No	SERIAL NUMBERS OF EQUIPMENT
Plot 5 East Midland Airport	
WINVIC	

Please ensure any additional checks which are required are carried out in accordance with the Installation manuals and spec sheets

DOCK LEVELLER					
Shimmed and fixed	YES / (NO)	Welded	YES / (NO)	Painted where required	YES / (NO)
Bumpers & Brackets	YES / (NO)	Wheel Guides Fitted			YES / (NO)

DOORS			
Guides level	(YES) / NO	Hangers installed	(YES) / NO
Floor Level	(YES) / NO	Tensioned correctly	(YES) / NO
Panels / Barrel Level	(YES) / NO	Manual endurance test done	(YES) / NO

SHELTER			
Top and sides level	(YES) / NO	Counter weight correct	(YES) / NO
Chords installed where required	(YES) / NO	Headframe Mastic Sealed	(YES) / NO

SCISSOR LIFT			
Shimmed and fixed	YES / (NO)	All level	YES / (NO)

COMBILOCK			
Shimmed and fixed	YES / (NO)	Centered to Dock	YES / (NO)

WASTE			
Removed from site where required	(YES) / NO	Disposed as required	(YES) / NO

COMMENTS

1 Dock Shelter Installed
2 x Dock Shelters Cleaned
all Black Caps fitted on wheel Guides
1 level acces Door leg Changed due to Sheel Denting bent
4 level access door pannels Changed

HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Stertil UK Ltd has provided the following:

1. Provided operational training on each of the items of equipment listed above	YES / (NO)
2. Equipment had been handed over without damage or defects	(YES) / NO

Customer signature:

Print: Shaac Sanders

Stertil UK Signature:

Print: Nathan Whitehead

N.B. If a further/certificated demonstration or training is required please contact the Projects Department

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STEEL HINGED DOORSETS INSTALLATION SHEET

Installation Order No: No: 1267

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
17/04/23		PAUL BRINDLE	SHAK SAMEJA
SITE NAME, ADDRESS AND TEL No		**SERIAL NUMBERS OF EQUIPMENT**	
PLOT 5 EMG, WILDERS WAY, EGGWORTH, DERBY, DE74 2BB			

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

STEEL HINGED DOORSETS	
Opening Width & Height Correct, Square, Vertical & Plumb	(YES) / NO
Threshold Installed (sealed underneath with weather resistant mastic)	(YES) / NO
Frame Section Plumb & Square	(YES) / NO
Door Leaves Open & Close freely	(YES) / NO
All locking devices operate correctly	(YES) / NO
Door Furniture fitted as per Specification Sheet	YES / NO
Seals fitted as per Specification Sheet	(YES) / NO
Blanking Plugs fitted to cover fixing holes in frames	(YES) / NO
Door Closer pressure set correctly	(YES) / NO
Door Stay fitted	(YES) / NO
Mastic by Stertil	YES / NO
(If no – please detail in comments section)	

WASTE			
Removed from site where required	YES / NO	Disposed as required	YES / NO
(If no – please detail in comments section)			

COMMENTS	
EX 084	
EX 063	
EX 059	ALL FITTED & COMPLETE
EX 058	
EX 057	
EX 053	

DOOR LOCATIONS

HANDOVER & DEMONSTRATION OF EQUIPMENT	
I confirm the undersigned representative of Stertil UK Ltd has provided the following:	
1. Equipment has been handed over without damage or defects	YES / NO
2. All doors have been checked by Client	YES / NO

Customer signature:

Print: SHAK SAMEJA

Stertil UK Signature:

Print:

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STEEL HINGED DOORSETS INSTALLATION SHEET

Installation Order No: No: 1316

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
28/03/23			

SITE NAME, ADDRESS AND TEL No	SERIAL NUMBERS OF EQUIPMENT
PLOT 5 EMG	

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

STEEL HINGED DOORSETS	
Opening Width & Height Correct, Square, Vertical & Plumb	(YES) / NO
Threshold Installed (sealed underneath with weather resistant mastic)	(YES) / NO
Frame Section Plumb & Square	(YES) / NO
Door Leaves Open & Close freely	(YES) / NO
All locking devices operate correctly	(YES) / NO
Door Furniture fitted as per Specification Sheet	(YES) / NO
Seals fitted as per Specification Sheet	(YES) / NO
Blanking Plugs fitted to cover fixing holes in frames	(YES) / NO
Door Closer pressure set correctly	(YES) / NO
Door Stay fitted	YES / (NO)
Mastic by Stertil	
(If no – please detail in comments section)	

WASTE			
Removed from site where required	YES / NO	Disposed as required	(YES) / NO
(If no – please detail in comments section)			

COMMENTS

EX 033 – FITTED & COMPLETE
EX 030 – FITTED & COMPLETE
EX 007 – FITTED & COMPLETE
EX 001 – FITTED & COMPLETE
EX 114 – FITTED & COMPLETE
EX 113 – FITTED & COMPLETE
EX 087 – FITTED & COMPLETE
EX 108 – FITTED & COMPLETE
EX 111 – FITTED & COMPLETE
EX 112 – FITTED & COMPLETE
30/03/23

DOOR LOCATIONS

HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Stertil UK Ltd has provided the following:

1. Equipment has been handed over without damage or defects	YES / NO
2. All doors have been checked by Client	YES / NO

Customer signature: D Hill

Print: D. HILL

Stertil UK Signature: P. Brindle

Print: P. BRINDLE

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MECHANICAL INSTALLATION SHEET

No: 192292

Installation Order No:

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
28/3/23			

SITE NAME, ADDRESS AND TEL No	SERIAL NUMBERS OF EQUIPMENT
Wavic East Midlands	

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

DOCK LEVELLER					
Shimmed and fixed	YES / (NO)	Welded	YES / (NO)	Painted where required	YES / (NO)
Bumpers & Brackets	YES / (NO)	Wheel Guides Fitted			YES / (NO)
DOORS					
Guides level	YES / (NO)	Hangers installed			YES / (NO)
Floor Level	YES / (NO)	Tensioned correctly			YES / (NO)
Panels / Barrel Level	YES / (NO)	Manual endurance test done			YES / (NO)
SHELTER					
Top and sides level	(YES) / NO	Counter weight correct			YES / (NO)
Chords Installed where required	(YES) NO	Headframe Mastic Sealed			(YES) / NO
SCISSOR LIFT					
Shimmed and fixed	YES / (NO)	All level			YES / (NO)
COMBILOCK					
Shimmed and fixed	(YES) / NO	Centered to Dock			(YES) / NO
WASTE					
Removed from site where required	(YES) / NO	Disposed as required			(YES) NO

COMMENTS

72 x Dock Shelters installed and mastic Sealed
78 x Wheel Guides installed

LAD PANEL CAN NOT BE FITTED UNTIL AFTER 04/04/23

HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Stertil UK Ltd has provided the following:

1. Provided operational training on each of the items of equipment listed above	YES / (NO)
2. Equipment had been handed over without damage or defects	(YES) / NO

Customer signature:

Print: Shaic Sameja

Stertil UK Signature:

Print: Nathan Whitehead

N.B. If a further/certificated demonstration or training is required please contact the Projects Department

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MECHANICAL INSTALLATION SHEET

Installation Order No: 2210103CD No: 183578

DATE	COMPUTER REF No	INSTALLER	SITE CONTACT
21/12/22	1036833	A.Woodhouse	Lyndon Hart

SITE NAME, ADDRESS AND TEL No	SERIAL NUMBERS OF EQUIPMENT
EMG Plot 5 DE74 2DL	

Please ensure any additional checks which are required are carried out in accordance with the installation manuals and spec sheets

DOCK LEVELLER					
Shimmed and fixed	(YES) / NO	Welded	YES / (NO)	Painted where required	YES / NO
Bumpers & Brackets	(YES) / NO	Wheel Guides Fitted			YES / NO

DOORS			
Guides level	(YES) / NO	Hangers installed	YES / (NO)
Floor Level	(YES) / NO	Tensioned correctly	(YES) / NO
Panels / Barrel Level	(YES) / NO	Manual endurance test done	(YES) / NO

SHELTER			
Top and sides level	YES / NO	Counter weight correct	YES / NO
Chords installed where required	YES / NO	Headframe Mastic Sealed	YES / NO

SCISSOR LIFT			
Shimmed and fixed	YES / NO	All level	YES / NO

COMBILOCK			
Shimmed and fixed	YES / NO	Centered to Dock	YES / NO

WASTE			
Removed from site where required	(YES) / NO	Disposed as required	(YES) / NO

COMMENTS

Mechanical install of 78 Dock Levellers
Mechanical install of 77 Load bay sectional doors
6 x levell access doors
78 x PE750 bumpers

1 remaining dock door to be fitted, due to damaged panels, tracks and spring already fitted

HANDOVER & DEMONSTRATION OF EQUIPMENT

I confirm the undersigned representative of Stertil UK Ltd has provided the following:	
1. Provided operational training on each of the items of equipment listed above	(YES) / NO
2. Equipment had been handed over without damage or defects	(YES) / NO

Customer signature: [signature]

Print: A Wells

Stertil UK Signature: A. [signature]

Print: Anthony Woodhouse

N.B. If a further/certificated demonstration or training is required please contact the Projects Department

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Cleaning and Maintenance Regimes

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Data Sheets

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LED Dock Light

Our LED Dock Light consists of a bright LED lamp on a robust extendable arm. It is designed specifically for illuminating the inside of a trailer during loading and unloading.

It utilises modern and energy efficient LED six watt light heads, offers 480 lumens and a bulb life in excess of 50,000 hours. It also incorporates a 23v transformer. The lamp is mounted on powder coated articulated arms that have been designed to fold down if struck by a loading bay door.

Specifications

Type	EU 6
Light Source	LED
Power	6 * 1 W
Work Voltage	AC (85V-265V) / (50-60HZ)
Power Factor (PF)	> 0.9
Light Efficiency	> 100 lm/w
Lumens	> 480 LM
Fixture Efficiency	> 90%
View Angle	60 degrees
Colour Instruction	> 80
Colour Temperature (CCT)	6000-6500 K
Life Time	> 50,000 hrs
Luminance Decrease	Keep Lighting 1000hours Decrease 1%
IP Grade	IP65
	No UV or IR light radiation
	CE Certification

OPERATION & MAINTENANCE MANUALS

STEEL DOOR SETS / PERSONNEL DOORS

SECTION 1: Limitations of Use

SECTION 2: Design Life Reports

SECTION 3: Maintenance Information

SECTION 4: Cleaning Information

SECTION 5: Disposal Instructions

SECTION 6: Modification Information

SECTION 7: Test Certificates

SECTION 8: Manufacturers Literature

SECTION 9: Emergency Procedures

SECTION 1: Limitations of Use

The design function of the doors supplied will be dictated by the hardware fitted. This should be identified from the door schedule/ drawings. The descriptions below are generic types and whilst try to cover all applications specific reference may be made to our office:

Plant/ Store Room Doors: These are fitted with deadlocks and cylinder with either cylinder pulls or pull handles. The doors are designed to be kept locked for the majority of their daily life and opened to allow access to the plant or store room. They would be designated as low use doors, being used relatively infrequently but possibly daily.

Means of Escape Doors: These are fitted with panic hardware and closer and may be located on internal corridors or on the external face of the building. The doors are designed to be kept closed (in some case they may also form part of the fire partitioning of the building) and used in the event of an emergency. Under these circumstances they should be used infrequently, the doors and hardware we would class as medium use.

Please note: Whilst some of the doors are fitted with outside key access, these are designed to allow limited access they are not designed as main access doors and should not be used as such.

Fire Partition Doors: These are fitted with a mixture of hardware, some with panic, some with latches only. All will be fitted with selectors to ensure that they close in the correct sequence. As they are fire resisting doors it is important that they are kept closed. In high traffic areas they will have been fitted with hold open closers so that they do not impede traffic flow. Such doors will closer automatically when the fire alarm gives them the correct signal. These doors would be classed as medium use doors.

SECTION 2: Design Life Reports

The general life expectancy of the doors and furniture is between 10-20 years. This is heavily dependant upon the frequency of use and the care taken when using the equipment and that the doors are correctly maintained.

Specific warranties will be applicable to individual elements of the work (as detailed below). Please note that these warranties where they exceed 12 months will be dependant upon a service and maintenance agreement being in force with the supplier:

Doors:	1 YEARS
Hinges:	25 YEARS
Panic Furniture:	5 YEARS
Other Furniture:	5 YEARS
Closers:	10 YEARS
Locks & Cylinders:	1 YEARS

SECTION 3: Maintenance Information

There are a number of components that make up the door assemblies and each raise their own maintenance issues:

We would recommend that the doors and their associated hardware are maintained on a six monthly basis. (this can be reviewed after the initial visit when usage frequency can be accurately assessed)

Detailed below are the guidelines for the care of door identified by component. It is important to remember that the full door assembly will not last as long as planned and function correctly if all of the components are not maintained correctly.

For example it is wrong to check that a door blade is free of dents and opens but fail to check the panic hardware fitted to it works correctly.

Doors

The door alignment should be checked at regular (6 monthly) intervals to ensure that the door and frame have not settled out of true.

The doors should be free of dents and scratches and they should open freely

Door openings should be kept clear of obstructions (internally and externally) to ensure that the door operation is not impeded.

The locks and/or panic hardware should be checked to ensure smooth and correct operation and if necessary adjustments should be made to the settings. If the ironmongery is inoperable for any reason then please contact your supplier for assistance. (Please see individual Sections Below)

Hinges

Hinges must be fitted accurately to ensure efficient operation and all hinge pins should be in vertical alignment.

Hinges should be inspected periodically for wear that may inhibit the free movement of the door and also that may cause the door to drop. All screws should be checked for tightness.

Loosening of hinges is usually caused by poor alignment or by incorrect choice of screws. Loose screws should be tightened and if possible the problem should be eliminated by realigning the hinges or by replacing the screws with a more suitable type.

Hinges should be lubricated periodically with light machine oil.

Whilst squeaking of hinges is a sign of lack of lubrication, if it occurs frequently then pin misalignment should be investigated.

Overhead Door Controls

Since all internal parts are completely immersed in oil there is little routine maintenance to be carried out. However each overhead door closer should be inspected for oil leakage, tightness of fixings and correct operation. Light oil lubricant should be applied to exposed pivot points.

Ensure the door closes smoothly and firmly into the frame overcoming the latch and/or seals if fitted. If it does not, make sure the lock and hinges are correctly fitted and operating correctly before adjusting the closer.

To avoid slamming, the latch action should be adjusted. Where backcheck or delayed action functions are incorporated these should also be checked and adjusted. Similarly with adjustable power units the valve should be adjusted to take account of the size of door, variable air pressures and the ability of the user to operate the door. It is recommended that door stops be fitted to all non-backcheck applications to prevent the door opening beyond the limit of the closer.

Ancillary Products

These should be checked to ensure that they are correctly fixed and do not interfere with the correct operation of other ironmongery or the door leaf.

Electro Magnetic Devices

Any electrical hold open device and its associated sensor or alarm should be checked once a week.

Locks and Latches

The correct operation of a lock or latch, assuming correct fitting, is often affected by movement of the door or frame caused by climatic conditions or wear on hinges.

The usual result is the inability of the latch and deadbolts to easily engage the striking plate or keep, requiring an adjustment to their position on the frame. The mortice should also be checked to ensure that no debris has entered the lockcase.

It is also important that the holes in the frame behind striking plates are deep enough and free from foreign matter, to ensure unrestricted movement of the bolt or bolts.

Lubricant should occasionally be applied to the side and striking face of latch bolts. Grease should not be applied to the internal lock mechanism, as this will attract dust.

Cylinders

Cylinders should not be lubricated with oil since this will attract dust, which can affect their smooth operation. They should be maintained with a periodic application of powdered graphite into the keyway.

Lever Handles

Backplate and rose fixings should be periodically checked for tightness and adjusted if found loose. Badly fitted and maintained furniture can prevent the lock from operating correctly. Spindle grub screw fixings should also be checked and tightened.

Pull Handles

Pull handles should be inspected to ensure that bolt through fixings and/or screw fixings are tight. Loose pull handles can damage the door face and become unstable.

Emergency and Panic Exit Hardware

Regular inspection and maintenance is essential in the interests of safety.

Attention must be given to ease of opening and closing with adjustments as necessary to compensate for any door or frame movement. Floor sockets should be cleaned out to prevent foreign matter impeding bolt movement.

Lubrication will be limited to the application of a little light machine oil to the pivots of the top tripper mechanism of panic bolts, to the saddles of panic bolts and to the bolt head of panic latches.

SECTION 4: Cleaning Information

STEEL DOORS

The doors are provided in a powder coated finish this can be cleaned as follows:

a) General Dirt: The door can be washed down with a proprietary non abrasive cleaning solution such as washing detergent diluted in hot water. The cloth should be wrung out so as not to soak the door or any furniture fitted to it
b) Specific Dirt or Problems: This will depend upon the specific item on the door and no general information can be given in this document. Specialist advice should be sort.
c) Damage to powdercoated surface: Over time the powdercoat surface may become scratched or dented and this can be touched up with proprietary paint system.

CARE OF FINISHES

Surface deposits such as dirt and dust are the main cause of corrosion in metal door furniture particularly when combined with moisture in a damp atmosphere. In hardwearing environmental conditions near the coast or industrial areas acidic or alkaline deposits may build up and attack the surface finish. It is very important that care is taken to maintain door furniture finishes since many finishes especially anodised, electro-plated, polished and lacquered surfaces are damaged by incorrect cleaning.

Frequent dusting using a soft dry cloth and occasional washing with warm soapy water, followed by a light application of good quality wax polish will provide a good foundation for preserving the appearance of most finishes. Chemical sprays, cellulose based thinners and silicone based polishes should be avoided. Ironmongery fitted externally will require greater attention due to increased exposure to atmospheric conditions.

It is strongly advised that solvents, metal polishes, or cleaners containing abrasive powders or abrasive cloths and pads should not be used for cleaning lacquered or electro-plated finishes.

Electro Plated Finishes

Electrophoretic and plated finishes should be wiped clean with soapy water and a soft cloth and wiped dry.

Powder Coated

Epoxy, polyester or polyurethane powder coated finishes should be cleaned with a soft cloth and household furniture polish. Under no circumstances must industrial solvents be used.

Nickel and Chrome

Door furniture with nickel and chrome finishes should be dusted regularly. They should be washed periodically with weak detergent solutions and rubbed occasionally with a cloth dampened in paraffin or light oil.

Stainless Steel

Whether supplied in satin or polished finish, stainless steel should be dusted regularly, occasionally washed with warm soapy water and dried with a soft clean cloth. Avoid acid or chloride based cleaning products and abrasive materials.

Nylon

Nylon is a non-porous material and the smooth surfaces of nylon products do not attract dust. Appearance can be maintained by wiping with a damp cloth, which will restore the product to a pristine condition.

Stove Enamelled

These finishes should be wiped with a non-abrasive, soft cloth and a non-abrasive.

SECTION 5: Disposal Instructions

STEEL DOORS

The doors and their hardware are constructed from up to 95% metal and can be recycled. Their disposal does not pose any health or safety risks.

SECTION 6: Modification Information

No details are currently known of any plans to modify the doors on this project. If and when such information is available our required proposals can be made.

SECTION 7: Test Certificates

The test certificates for this project are included as a separate pdf file.

SECTION 8: Manufacturers Literature

Literature detailed in this section is supplied as separate pdf file:

SECTION 9: Emergency Procedures

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Unit A, Brackmills Business Park
Caswell Road
Northampton
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Dock Leveller

Type SF

Installation & Service Manual

06000805

A member of the Stertil Group

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1 ABOUT THIS MANUAL

1.1 Copyright

1.2 Disclaimer

The English language version is the original version. All other language versions are translations of the original English language version.

Stertil B.V. reserves the right to modify the construction and/or configuration of its products at any time without any obligation to modify products which have been previously supplied. The data provided in this manual is based on the most recent information. This data may be subject to change at a later date, without prior notification. For information regarding adjustment, maintenance or repair which is not described in this document, please contact the Customer Service department of Stertil B.V.

The information in this document concentrates solely on use of the product as intended by the manufacturer. In the event that the products, parts of the products or procedures are applied in any way other than that described in this manual, then confirmation must be obtained as to the correctness and suitability of that use.

No rights may be derived from this manual or from the documentation supplied together with the product. Supplier is bound by no agreement other than the order confirmation.

This manual contains useful and important information on the correct operation and proper maintenance of the product. Furthermore, the manual contains important instructions for installing the product and instructions for preventing possible accidents and serious harm while the machine is running. We have taken all possible steps to make this manual as correct and as complete as possible. Should you discover any errors or omissions, please bring this to the attention of your local Stertil service department or distributor, see section Technical support (on page 51), so that we can make amendments. This will enable us to improve our documentation.

The instructions in this manual do not take into account different national regulations and laws. When operating the machine, it is the sole responsibility of the user to make sure that all applicable local laws and regulations are obeyed.

1.3 Guarantee and liability

Please refer to the order confirmation and the delivery terms and conditions for the applicable guarantee and liability.

1.4 Recommissioning

In the event of a recommissioning (e.g. relocation of the machine or a transfer of ownership), you MUST contact Stertil and subcontractor to discuss the procedures, terms and conditions, service contract, etc., so that the proper functioning and safety of the machine after recommissioning can be guaranteed.

If Stertil is not involved in a recommissioning, then Stertil is not liable for any claims of third parties arising from that recommissioning.

1.5 Compliance with standards

The dock leveller has been tested, certified and found to comply with:

- the 'Machinery directive' 2006/42/EC.

The control box has been tested, certified and found to comply with:

- the 'Low Voltage Directive' 2006/95/EC,
- the 'EMC Directive' 2004/108/EC.

The product complies with all applicable CE-directives and therefore bears a CE plate.

1.6 Manufacturers details

If you need any assistance, please contact your regional service center.

If you still have questions after reading this guide, we would encourage you to contact us. We appreciate all advice, feedback and suggestions from our customers. Please contact Stertil at:

Stertil B.V.

Address:	P.O. Box 23/9288 ZG Kootstertille Westkern 3/9288 CA Kootstertille The Netherlands
Phone:	+31 (0) 512 334 444
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1.7 Trademarks

All trademarks stated in this manual are registered trademarks of their suppliers.

1.8 Document conventions

In this manual the following signs are used to draw the reader's attention to especially important points.

Actions the operator or engineer should perform in a specific sequence are numbered:

– 1. Turn on the power switch.

– Bullets (•) are used for lists of items or actions.

– Soft keys or touch screen buttons are always shown between [brackets]:
[Start], [Enter], [2].

Note:
Provides additional information that is helpful to do a task or to avoid problems.

Caution:
Warns of a situation that may cause material damage if one does not follow the safety instructions.

Warning
Warns of a situation that may cause physical injury and/or material damage if one does not obey the safety instructions.

Danger
Warns of a situation that will cause serious physical injury and/or heavy material damage if one does not obey the safety instructions.

Bold text is used for (sub)titles or for information that needs special attention:
"Read these instructions carefully".

1.9 Who is this manual intended for?

This manual is intended for installers and service engineers of the dock leveller of type SF. All installers and engineers of the dock leveller must fully read the following chapters and follow the instructions exactly.
After you have read the manual of the machine you can use this manual for reference. Use the table of contents and the index to locate specific information in this manual.

This manual is a guide for installing, service and maintenance of the machine. Each installation, service and maintenance action is described in the relevant sections of this manual.

For service and maintenance of the machine, the engineer must:

- have enough technical knowledge and experience to carry out the assigned tasks,
- be able to recognize and prevent hazards,
- have read this manual and must understand the contents,
- have been adequately trained,
- be able to follow the procedures in this manual.

1.10 Related documents machine

This manual is part of the documentation set for the machine. This set consists of the following documents:

- Operator Manual (included with machine),
  This manual contains all required information for the operation of the machine. This manual details also operator related maintenance.
- Installation and Service and manual,
  This manual describes the procedures required for a proper installation and preventive and corrective maintenance, that must be carried out by a certified service engineer. This manual contains all the relevant system engineering drawings as well as the lists of spare parts of the machine.
- Control box manual (available on request)
  This manual contains all required information of the basic and optional control boxes.

The operator manual is a separate manual, and must at all times be available for the user when operating or maintaining the machine, see Storing the manual (on page 9). Refer to the operator manual for normal operating procedures.

1.11 Version history

Every effort has been made to make this manual as accurate and complete as possible. However, should the user(s) find any errors or omissions, it would be appreciated if these were brought to the attention of Stertil. Please report any errors or omissions to Stertil.

Also, during the lifetime of the machine, engineering improvements may result in the need to revise this manual. It is then at the discretion of Stertil, if a revision/new version of this manual is required.

The following table describes the main changes for each document version of this manual.

Version	From serial number	Changes
0	141147	Original edition
A	165561	Updated in accordance with the new Machine Directive.
B	193462	New manual organization; extra information added. CTL unit added

1.12 Supplements to the manual

If you receive any supplements to the manual from Stertil, these must be inserted into the manual immediately.

1.13 Storing the manual

Stertil expects a copy of this manual to be available to the service engineers of the machine and a copy should always be available when maintaining the machine.

2 SAFETY

- When you operate the machine or carry out maintenance on it, always follow safety guidelines to:
  - Make sure your safety is guaranteed,
  - Make sure the safety of other persons is guaranteed,
  - Prevent damage to the machine.
- Always adhere to the local safety and health procedures, protocols and any additional local rules, laws and regulations in addition to following the manufacturer's safety instructions. Read the safety instructions on a regular basis, regardless whether you work with the machine daily or occasionally.

2.1 General Safety Instructions

- Persons working with the machine must follow local safety and health procedures, protocols and any additional local rules, laws and regulations in addition to following the manufacturer's safety instructions. Additional rules and guidelines can be, but are not limited to:
  - Local health and safety regulations,
  - The guidelines provided by professional associations.
- The machine manual must be available at the machine at all times.
- Read the operating instructions before you operate or maintain the machine.
- Make sure you have obtained, read and understood all instructions.
- Make sure you have obtained, read and understood any additional instructions for special accessories for the machine.
- Carry out all work with and on the machine as described in the manual.
- Never start or operate a damaged machine.
- Always make sure that the machine is complete before operation. Operating the machine with missing components can cause severe damage.
- Observe all signs with safety and danger notes. Replace warning and / or safety signs immediately if they are missing or illegible.
- Do not perform any tasks for which you are not authorized. Only explicitly qualified and authorized personnel may operate, maintain or repair the machine.
- Personnel in training must be supervised at all times.
- Wear and use all needed personal protection equipment and safety gear appropriate for the job.
- Keep a safe working environment.

- If necessary, make sure the machine complies with federal and local standards before starting work.
- Do not use the machine for purposes other than those specified.
- All personnel working on or with the machine must be aware of possible hazards.
- Never make any changes or additions to the machine, without obtaining explicit written approval from the manufacturer / supplier.
  This also applies to the installation and adjustment of safety devices.

2.2 Hazards

2.2.1 Electrical hazards

Precautions to be taken when working with electrical equipment:

- Consider all circuits live until you have personally turned the power off and locked the main switch. Also tag the main switch with a safety sign.
- Keep your clothing, hands and feet dry.
- Do not wear rings, watches, metal-rimmed glasses or jewelry when working around electrical circuits.
- Static electricity can harm electronic parts. Always make sure that you are earthed when working on electronic parts.
- Maintenance and repair activities on the electrical system of the machine may only be performed by special trained electricians which are familiar with the common and local electrical regulations in charge.

2.2.2 Mechanical hazards

Precautions to be taken when working with mechanical equipment:

- Do not wear rings, watches, jewelery, ties or loose sleeves when working around moving mechanical parts.
- Keep long hair covered when working around moving mechanical parts.
- Stay away from moving machine parts.
- Always use spare parts of a type and part number recommended by Stertil.

2.3 Safety features

The dock leveller has the following safety features:

- Emergency stop switch (on page 12),
- Automatic safety device (on page 12),
- Cross traffic legs (on page 13),
- Toe guards (on page 13),
- Lateral tilt torsion (on page 14),
- Safety Circuit (on page 13),
- Maintenance support (on page 14),
- Safety signs (on page 15).

Warning
It is not allowed to bypass or switch off the safety systems.

Warning
If protective covers have to be removed for maintenance, cleaning or repair, they must be replaced immediately after the work has been completed.

2.3.1 Emergency stop switch

The main switch of the dock leveller functions as an emergency stop switch.
Use the emergency stop switch only in case of emergencies.

2.3.2 Automatic safety device

If the truck drives off when loading or unloading with a forklift truck on the dock leveller the automatic safety device is automatically activated.

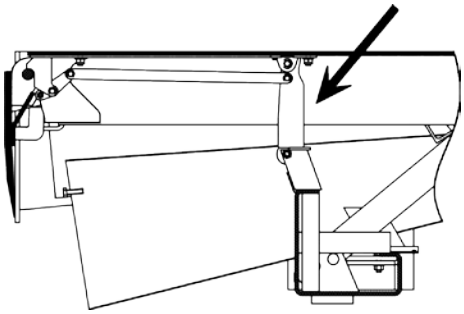
Note
The automatic safety device only activates if the actual load on the dock leveller exceeds 25% of the nominal load.

After the load has been removed, reset the dock leveller by briefly pressing on the control button.

Warning
If the automatic safety device is activated in a panic stop situation, always have the dock leveller checked for deformation by your supplier or dealer, before using it again.

2.3.3 Cross traffic legs

In the parked position (with pendant lip) the cross-traffic legs (CTL) rest on the support bearers and take the weight of all longitudinal and cross traffic.



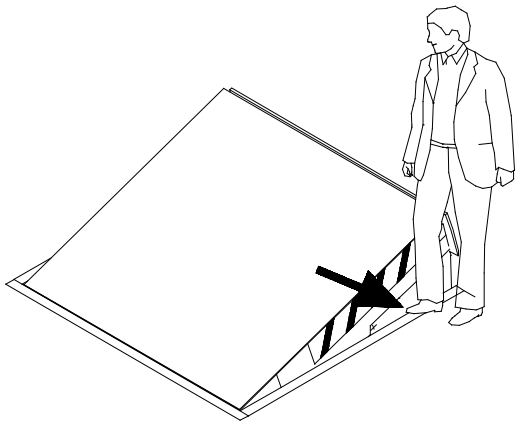
Cross traffic leg

> *Warning*
> *If the deck is not level in the parked position, this can be caused by an incorrect position of the CTL. This is a dangerous situation: immediately take the necessary action as described in The deck comes not (sufficiently) in parked position (see "The deck is not flush with the dock platform in parked position." on page **50**).*

2.3.4 Toe guards

Toe guards on both sides of the dock leveller are installed on the entire length of the dock leveller. They minimize the risk on entrapment or amputation for all persons near the dock leveller.

The toe guards are marked in yellow and black stripes to maximize visibility and to minimize tripping hazards.



Toe guards

2.3.5 Safety Circuit

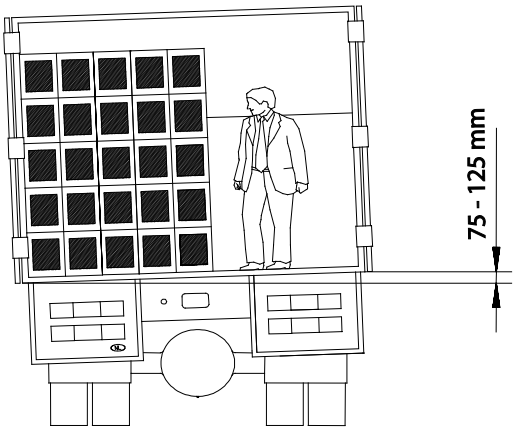
The dock leveller can only be operated with a closed safety circuit D-D.
The primary use of the safety circuit D-D is to connect a door switch, to make sure the dock leveller can only be operated when the door is opened.

Other local features can also be connected to the safety circuit D-D, such as a vehicle restraint system or barrier.

> Note
> On delivery safety circuit D-D of the dock leveller is connected with a jumper.

2.3.6 Lateral tilt torsion

The torsion flexibility of the deck ensures that the lip of the dock leveller stays in contact with the loading surface, even when the loading surface is not level.



Lateral tilt torsion

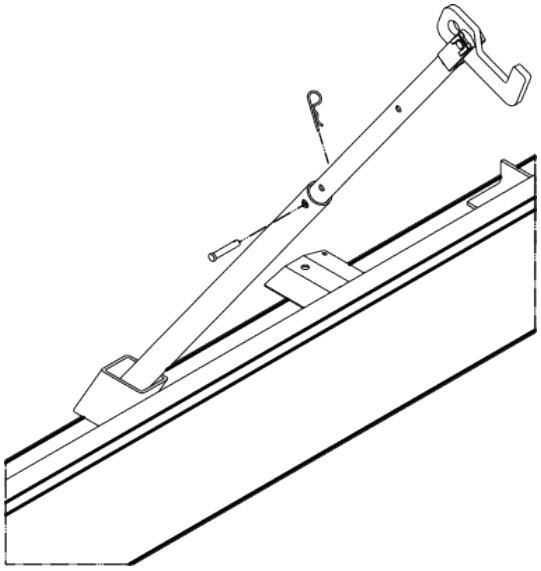
The maximum lateral tilt torsion is 75 - 125 mm: this depends on the type of dock leveller.

> Note:
> The maximum torsional flexibility is determined by the size of the dock leveller.
> With a larger dock leveller more lateral tilt torsion is possible.

2.3.7 Maintenance support

During repairs, adjustments, maintenance or cleaning of the dock leveller beneath the deck, a specific maintenance support must be placed.

Caution
If a situation occurs that you must go underneath the deck, this must be done by qualified personnel and always use the maintenance support.



Maintenance support

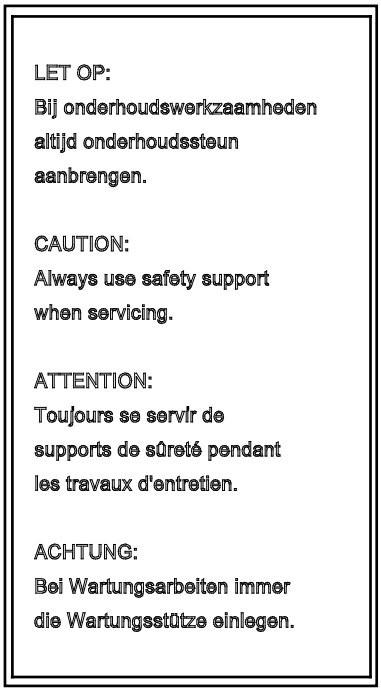
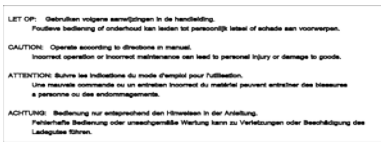
This maintenance support prevents unexpected movements of the dock leveller during activities beneath the deck, see Place the maintenance support (on page 35).

2.3.8 Safety signs

The dock leveller has safety signs.

Note
Regularly check whether all the safety signs are still present at the correct position on the dock leveller. If signs are not applied or are damaged, apply new ones. Apply at the correct position.

The table is an overview of the safety signs used on or in the machine. For each sign the location is indicated.

Pictogram	Description	Location
	Lifting point.	Centered on the lifting beam.
	Always use the maintenance support when servicing.	Underside of the deck beam, on the right side of the maintenance support, see SF operator manual for the location.
	Obstacle: risk of tripping, falling and collision.	On the toe guards.
	Operate according to directions in manual. Incorrect operation or incorrect maintenance can lead to personal injury or damage to goods.	On right side of the leveller, on the left top side of toe guard, see SF operator manual for the location.

2.4 Lock-out / tag-out

Lock-out or tag-out procedures are safety measures, designed to prevent application of power (energy) to the machine while it is being serviced.

The procedures for the application of energy control (the lock-out or tag-out procedures) must be done in the prescribed sequence.

2.4.1 Lock-out / tag-out procedure

1. Notification.
   Notify all affected employees that service or maintenance is required on the machine and that the machine must be shut down and locked out.
2. Preparation for shutdown.
   The machine may only be turned off by an authorized employee. Before turning it off, the employee must know:
   - The type and magnitude of the energy,
   - The hazards of the energy to be controlled,
   - The method or means to control the energy.
3. Shutdown.
   If the machine is in operation, shut it down by the normal shut down procedure. Refer to section Switch off.
4. Machine isolation.
   Isolate the machine from the energy source(s). The machine uses the following energy sources:
   - AC power.
     This is de-energized by removing the AC connection to the machine.
5. Lock-out (or tag-out) device application.
   Lock out the energy isolating device(s) with:
   - an individual lock(s),
   - place a warning device on the main switch.
6. Remove residual or stored energy.
   Stored or residual energy (such as that in capacitors, air pressure, etc.) must be dissipated or restrained by methods such as grounding, bleeding down, etc.
7. Verification of isolation.
   Make sure that the machine is disconnected from the energy source(s).
   First make sure that no persons are in or on the machine. Test to verify the isolation of the machine. Make certain that the machine will not operate (power cannot be turned on).

Caution

Return all operating control(s) to the OFF position after verifying the isolation of the machine.

The machine is now locked out.

2.4.2 End Lock-out/tag-out procedure

1. Make sure the service or maintenance is completed and the machine is ready to return to normal operation.
2. Check the machine and the immediate area around to make sure that all nonessential items have been removed.
3. Make sure that all components of the machine are operationally intact.

4. Make sure that all persons are at a safe distance from the machine.
5. Verify that the power switch is in the OFF position.
6. Remove the lockout devices.
7. Notify all personnel that the service or maintenance is completed and the machine is ready for use.

2.5 Environmental aspects

2.5.1 Disposal

When the machine has reached the end of its useful life, the owner and/or user is responsible for the safe disassembly of the machine and for the disposal of the components, in accordance with the local laws or regulations.

2.5.2 REACH declaration

The REACH regulation became effective on 1st June 2007. The aim of the REACH regulation is to ensure a high level of protection of human health and the environment from chemical substances.

Stertil B.V. manufactures articles in compliance with current revision of the REACH Regulation, and is downstream-user of chemical substances.

Stertil B.V. has the intention to fully comply to REACH regulation and has checked its suppliers to make sure they comply with REACH requirements for all materials and substances used in our products.

Stertil will provide relevant information e.g. Material Safety Data Sheet (MSDS) on request.

2.6 Training levels

Stertil recommends the following training levels:

- Operator:
  Lower vocational education or intermediate vocational education level and trained by the supervisor.
- Supervisor:
  Intermediate vocational education level and trained after the installation of the machine by the installation personnel.
- Maintenance engineer:
  Intermediate vocational education level.

> Note
> In case of doubt, always consult the Service Department of your supplier/dealer.

For more information about this and other possible trainings, contact your supplier/dealer.

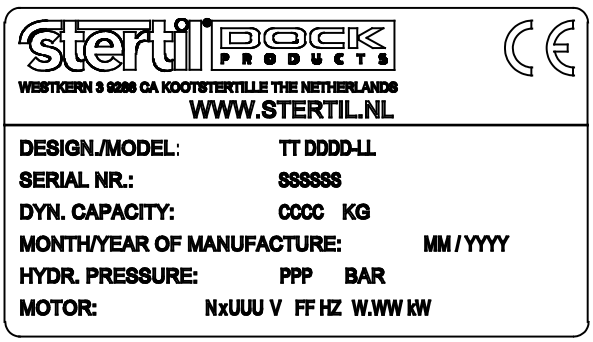
3 DESCRIPTION

3.1 Technical specifications

Specification	Value
Machine:	Dock leveller
Models:	SF 2017, SF 2217, SF 2517, SF 2817, SF 3017, SF 3517, SF 4017, SF 4517, SF 2018, SF 2218, SF 2518, SF 2818, SF 3018, SF 3518, SF 4018, SF 4518, SF 2020, SF 2220, SF 2520, SF 2820, SF 3020, SF 3520, SF 4020, SF 4520, SF 2021, SF 2221, SF 2521, SF 2821, SF 3021, SF 3521, SF 4021, SF 4521, SF 2022, SF 2222, SF 2522, SF 2822, SF 3022, SF 3522, SF 4022, SF 4522.
Capacity:	See type plate.
Mains supply:	3 x 380/415V, 50 Hz 3 x 220/240V, 50 Hz (option) Other mains supply configuration on request.
Control voltage:	24 V
Sound level:	74 dB(A)
Installation:	Indoor
Electric motor:	IP 54 in accordance with EN 60529
Control box:	IP 55 in accordance with EN 60529
Other components:	IP 55 in accordance with EN 60529
Dead weight:	See section Installation (see "Installation procedure" on page 23).
Operating temperature dock leveller:	-40 °C to +50 °C For operating the machine at extremer temperatures contact your supplier.
Operating temperature control box:	-10 °C to +40 °C For operating the machine at extremer temperatures contact your supplier.

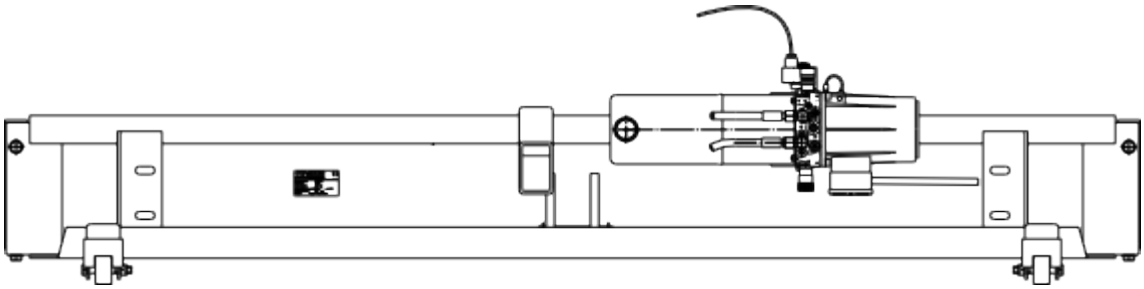
3.2 Product identification

On the type plate, information is recorded to identify the product.



Type plate

This type plate is located in the frontangle of the sub-frame.



Location of the type plate

The following data are present on the type plate:

Data	**Meaning**
TT:	Type code
DDDD:	Nominal deck length and width code
LL:	Nominal lip length code
SSSSSS:	Serial number
CCCC:	Capacity (dynamic)
MM/YYYY	Month and year of production
PPP:	Setting pressure relief valve
NxUUU	Mains voltage
FF	Mains frequency
W.WW:	Nominal power consumption

The data on the type plate is required to determine the pit dimensions and for ordering spare parts.

3.3 Intended use

The dock leveller is designed for the loading and unloading of trucks with the aid of vehicles such as forklifts or electric pallet trucks. The dock leveller may only be used for the purposes for which it is designed.
The dock leveller may never be operated above its rated load and permitted gradient of 12,5%.

> Note
> In this manual is commonly referred to trucks as the vehicle to be loaded or unloaded. When *truck* is written all common means of road transport equipment such as trucks, (semi-)trailers, swap bodies and containers are intended.

3.4 Operating principle

The dock leveller is operated with the control box.

The basic control box has one button only, if the button is pushed continuously:

1. The deck rises to the highest position.
2. The lip is extended and the cross traffic legs are retracted.
3. When the button is released, the deck lowers until the lip rests on the loading floor of the truck.

Optional advanced control boxes are available, with:

- An integrated control of the dock door
- An integrated control of an inflatable shelter.
- An Auto Return button.
- Below Dock Control.
- Traffic light control.

> Note
> For more information please refer to the specific advanced control box manual.

3.4.1 BDC (option)

When the loading floor of the truck is lower than the level of the dock platform, and is loaded to the end with cargo, there is no room for the lip to rest on the loading floor of the truck.
The optional Below Dock Control (BDC) makes it possible that the deck descends below dock level with a completely pendant lip. This makes it possible to load or unload the cargo closest to the end of the loading floor.

3.4.2 AR (option)

The optional Auto Return (AR) returns the dock leveller to the parked position after (un)loading, with a single touch of the ‘AR’ button.

This option is available with the SSC and SMC control boxes (not on the basic control box).

3.4.3 PLS (option)

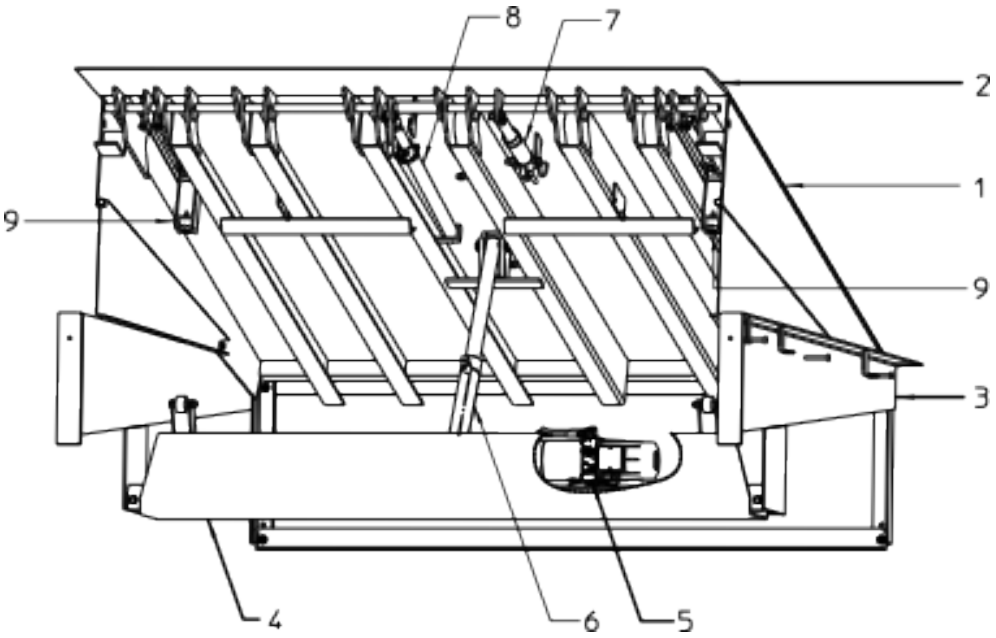
The Park Limit Switch (PLS) detects the parked position of the leveller and can be used as an extra safety device.
With the PLS it is possible to disable control of the door when the deck is not in parked position.

3.5 Functional description

The dock leveller SF-type is a leveller with a hanging type frame and a swing lip. The SF-type is designed for installation in an open pit.

The platform is positioned by means of one hydraulic cylinder at the front. The platform can twist smoothly to both sides to adapt itself to uneven loaded trucks, see Lateral tilt torsion (on page 14).

During the loading or unloading process, the leveller adjusts itself to the changing floor height of the truck.



1. Deck with toe guards
2. Lip
3. Subframe
4. Front angle
5. Hydraulic pump unit
6. Main cylinder
7. Lip cylinder
8. Maintenance support
9. Cross traffic leg

Main components of the dock leveller.

4 INSTALLATION

4.1 Installation procedure

4.1.1 Floor requirements

The construction of the building and the floor must be strong enough to carry the dock leveller with load. In case of doubt, consult an architectural specialist. It is the responsibility of the client or user that the building and the floor meet the requirements of Stertil

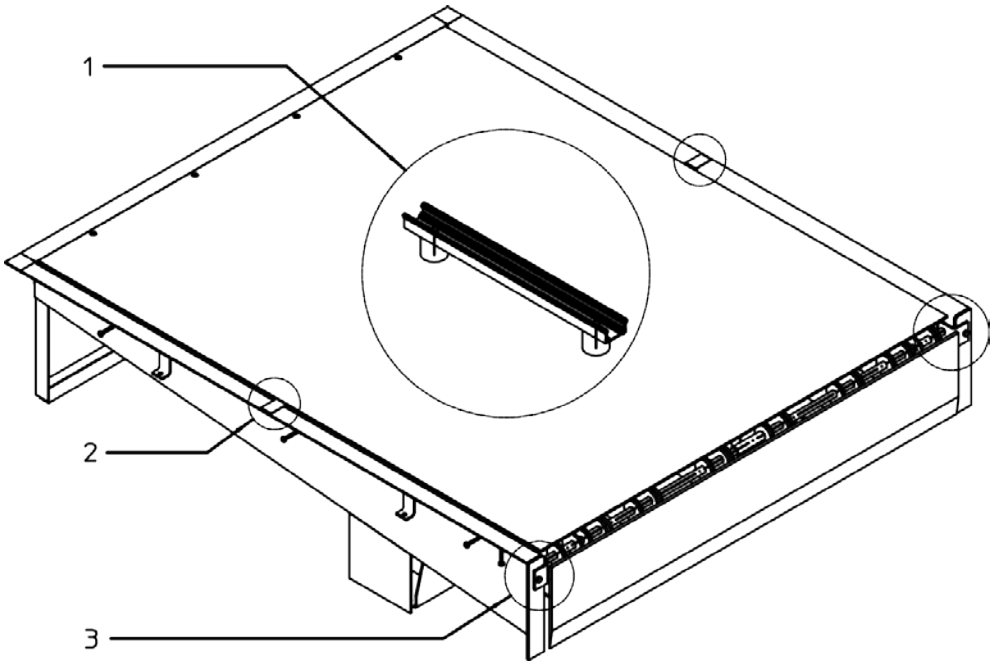
> Note
> See section Pit layout - conventional (on page 74) and Pit layout - QMS (on page 76) for the pit layout drawings.
> A drawing of the pit forces is available on request.

4.1.2 Lifting the dock leveller

For transporting the dock leveller, use a forklift with sufficient capacity. Refer to the following table to determine the dead weight of your dock leveller.

Dead weight (kg)	**Width**				
Length	**SF **17**	**SF **18**	**SF **20**	**SF **21**	**SF **22**
SF 20**	700	725	750	800	850
SF 22**	775	800	825	875	925
SF 25**	850	875	900	950	1000
SF 28**	925	950	975	1025	1075
SF 30**	1000	1025	1050	1100	1150
SF 35**	1150	1175	1200	1250	1300
SF 40**	1300	1325	1350	1400	1450
SF 45**	1450	1475	1500	1550	1600

Caution
Always use the lifting beam when lifting the dock leveller.



1. Lifting beam
2. Spacer
3. Transportation bracket

Lifting and transportation facilities

Danger
Do not stand under the dock leveller during lifting. If it drops, this may result in serious injury.

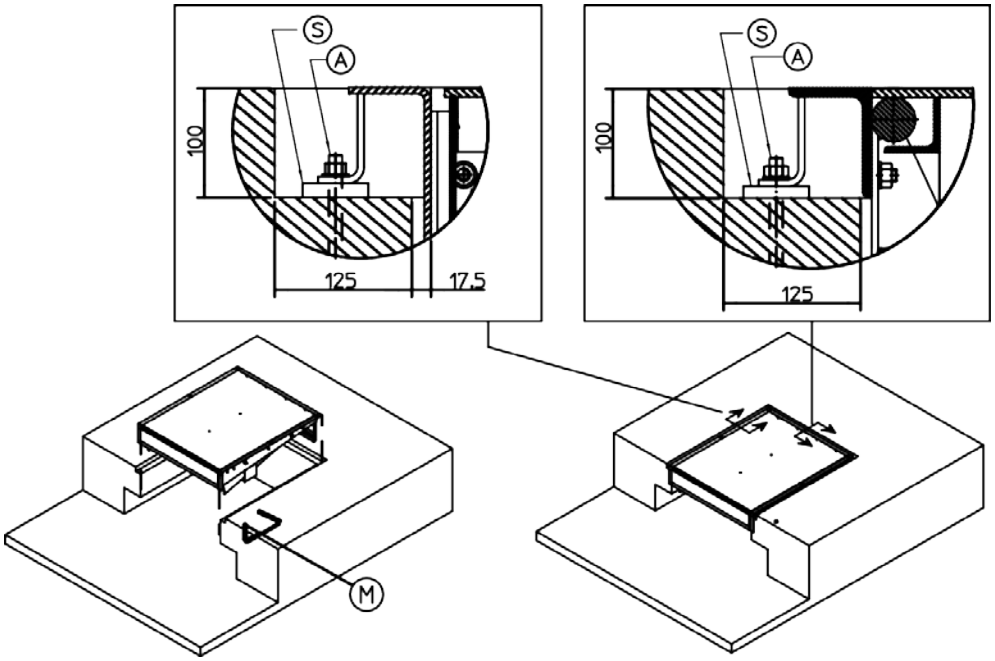
Warning
Always hoist the dock leveller at the lifting beam only.

Warning
Inexpert lifting/hoisting leads to dangerous situations.

Caution
After installation in the pit is completed, remove all lifting and transport facilities as described in the installation procedure.

4.1.3 Conventional installation

> Note
> The installation of the dock leveller may only be carried out by the service department of Stertil or by a service department or dealer certified by Stertil.



S. Shims

A. Anchor bolt

Conventional installation

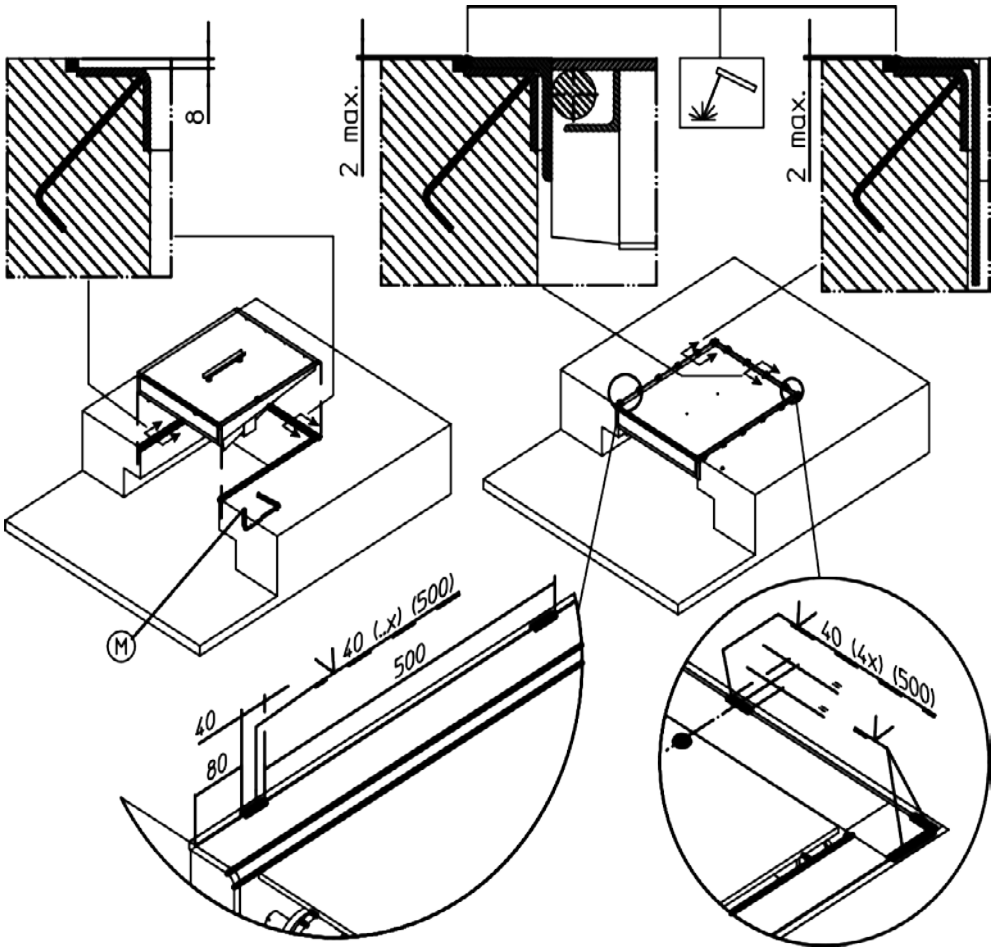
For a conventional installation:

1. Make sure that:
   - The pit is constructed according to the requirements as stated in the pit layout conventional (see List of parts and appendices (on page 53)).
   - A jacket pipe Ø 50 mm (m) is installed. Use this pipe to guide the electrical cables from the dock leveller to the control box.
   - The concrete surface in the recess of the pit edge is clean and rough. This ensures a good bond between the new mortar and the concrete.
2. Depending on the situation the control box is:
   - Already mounted on the wall.
   - Separately delivered.
   - Stowed underneath the leveller in the front angle.
     If the control box is stowed in the front angle: Remove the control box and the motor cable from underneath the leveller before installing the leveller in the pit. See Connection procedure (see "Connection procedure (S)" on page 28).
3. Use a crane or forklift to lower the dock leveller into the pit. The dock leveller will rest on the anchor plates when it is positioned correctly in the pit.

4. Adjust the height of the dock leveller with shims and ensure that the upper surface of the dock leveller is horizontal and flush with the dock platform.
5. When the dock leveller has been adjusted to the correct height, fasten the sub-frame in the pit with anchor bolts.
6. Seal all gaps between the sub-frame of the dock leveller and the recess, to avoid concrete spilling into the pit.
7. Pour mortar into the recess to secure the dock leveller. Using a synthetic resin mortar is recommended.
8. Remove the lifting and transport facilities when the mortar is set.
9. Connect the control box, see Connections (on page 28).

4.1.4 Quick mounting installation

> Note
> The installation of the dock leveller may only be carried out by the service department of Stertil or by a service department or dealer certified by Stertil.



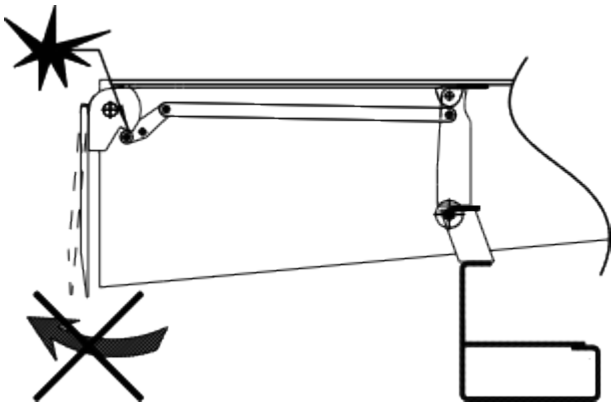
Quick mounting installation

For a quick mounting installation:

1. Make sure that:

- the pit is constructed according to the requirements as stated in the pit layout OMS (see List of parts and appendices (on page 53)).
- a jacket pipe Ø 50 mm (m) is installed. Use this pipe to guide the electrical cables from the dock leveller to the control box.

2. Depending on the situation the control box is:
   - Already mounted on the wall.
   - Separately delivered.
   - Stowed underneath the leveller in the front angle.
     If the control box is stowed in the front angle: Remove the control box and the motor cable from underneath the leveller before installing the leveller in the pit. See Connection procedure (see "Connection procedure (S)" on page 28).
3. Use a crane or forklift to lower the dock leveller into the pit. Make sure that the edges are flush with the dock platform.
4. Weld the sub-frame to the pit edge at the positions as marked in the figure (weld length must be circa 40 mm):
   - At the back side: Weld right behind the hinge screws.
   - At the sides: Start with a weld circa 80 mm from the front edge. Continue to weld every 500 mm.
5. Clean all welds with a brush and paint them with a primer and a finishing layer.
6. Remove the lifting and transport facilities.
7. Connect the control box, see Connections (on page 28).



Do not manually pull the lip

Caution
Do not manually move the lip to get underneath the dock leveller. This can cause permanent damage to the dock leveller.

4.2 Connections

4.2.1 Electric supply

Technical data:

Mains voltage:	400V - 50 HZ (380/415V) 3 phases + earth	230V - 50 HZ (220/240V) 3 phases + earth
Electrical motor connection:	λ, take-off power 0.75 kW	Δ, take-off power 0.75 kW

4.2.2 Connection procedure (S)

The leveller can be connected to 230V or to 400V. Change the electric motor control box supply voltage settings with the jumper inside the control box. See Control box (on page 66).

Note
The standard input voltage setting of the control box is 400V.

Warning
Only authorized personnel are allowed to install the machine.

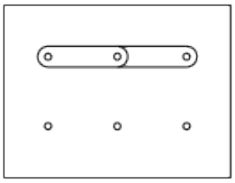
Warning
Only qualified electrical engineers are allowed to make electrical connections.

Caution
Always adhere to local safety and health procedures, protocols and any additional local rules, laws and regulations in addition to following the manufacturer's safety instructions.

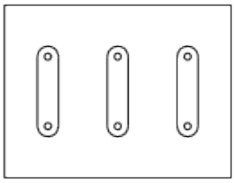
To connect the dock leveller:

1. Make sure that:
   a) The leveller is installed firmly in the pit. Correct this if necessary.
   b) The concrete and mortar are completely set. Wait if necessary.
   c) The transport and lifting facilities are removed. See Installation procedure (on page 23).

2. Check the mains power supply and the electric motor connection as stated in the figure. If the input voltage does not correspond with the jumper settings, change the jumper settings to match the input voltage.



3 PHASE ⅄
400 V



3 PHASE △
230 V

3. Raise the deck to gain access to all cables underneath the deck.
   a) Switch the main power supply off.
   b) Switch the main switch to "0".
   c) Connect the motor cable temporarily to clamps U, V, W and PE of the control box.
   d) Connect the power supply cable to mains power on the construction site and temporarily to clamps L1, L2, L3 and PE of the control box.
   e) Open the door manually.
   f) Check that all cables are connected correctly.
   g) Switch main power supply on.
   h) Switch the main switch to "1".
   i) Press [deck up] until the deck is in the highest position and place the maintenance support under the deck; see section Place the maintenance support (on page 35).
4. Disconnect the control box cables.
5. Go underneath the leveller deck.
6. Position the cables underneath the deck and sub-frame. Secure the cables every 300-500 mm with tie wraps or cable clips, ensuring slack for deck movement and clearance from moving parts.

> Note
> If the deck of the dock leveller does not rise when the motor is running, change the rotation direction by swapping the connections of clamps 2 U and V, see Control box (on page 66).

> Note
> The cables are subject to the installed options and can include motor cable and optional sensor cables. Mark the sensor cables if needed.

7. Pull the cables through the jacket pipe.

8. Install the control box on the wall and connect the cables permanently, see Control box (on page 66).

Note
It is recommended that the control box is mounted on the driver's side.

Note
If you are installing components from a third party, refer to third party documentation for details.

4.3 Operational test

Warning
All electrical components installed on the dock leveller are linked to the control box and can be subject to electrical power. This includes, but is not limited to, the hydraulic unit and switches.

1. Before testing the dock leveller, make sure that:
   - You are allowed and qualified to test the system.
   - No padlock or tag-out sign is present.
   - No persons, goods or other objects are on, or in front of the dock leveller.
   - No possible obstacles are under the dock leveller.
   - The dock leveller has no visible damage.
   - The connection procedure is completed, see Connection procedure (see "Connection procedure (S)" on page 28).
   - The door is open.
2. Switch on the main power supply.
3. Switch the main switch to "1".
4. Test all dock leveller functions, including installed optional features.

Note
Refer to Troubleshooting (on page 47) in case of malfunctions.

5. Return the dock leveller to the parked position.

5 INSPECTION AND MAINTENANCE

5.1 Aim of maintenance

Maintenance can be divided into two categories:

- preventive maintenance,
- corrective maintenance.

Preventive maintenance is all maintenance necessary to keep the machine in a good condition or returning it to that condition.

Corrective maintenance is done after malfunctions have occurred.

Warning
Only authorized personnel is allowed to carry out maintenance.

Warning
Always follow maintenance instructions.

Note
All maintenance actions described must be done on schedule. Due to load differences and environmental influences certain parts may require more or less maintenance than specified.

Note
The maintenance procedures will refer to special instructions when necessary.

5.2 When you carry out maintenance

Be aware that:

- If you are in any doubt whether you should perform an action, please contact your local Stertil service department or distributor.
- If you are allowed to perform an action but are unsure whether you have the ability to do so, please contact your local Stertil service department or distributor.
- Always observe the safety procedures when carrying out maintenance; see chapter Safety (on page 10).
- After carrying out the maintenance, always perform the final checks.

5.2.1 Recommendations for maintenance

When you do maintenance on the machine, keep these recommendations in mind:

- Keep the machine clean at all times.
- Repair damaged or worn parts immediately.
- Ensure that all fasteners are secured after maintenance.
- Do not operate defective equipment.
- Follow the safety instructions in this manual.
- Follow the safety regulations that apply to your site.
- For repairs and maintenance, always use original Stertil parts.

5.2.2 Pay attention to safety

Work on installations and devices can only be safe if:

- the corresponding instructions are carried out to the letter,
- all protection devices are left in place.

Warning
To carry out maintenance or revision work, it can be necessary to dismantle parts. This means a change in the original state of the machine or device. Make sure all steps to ensure safety are taken.

Warning
It is the responsibility of those in charge of preparing or surveying this work, to take the necessary steps to guarantee safe working conditions.

Most accidents with machines happen during maintenance and repair work. Before starting maintenance on the machine, lock the machine out, see Lock-out / tag-out (on page 16).

Warning
Always use the maintenance support during repairs, adjustments, maintenance and cleaning beneath the deck of the dock leveller.

The maintenance support prevents unexpected movements of the dock leveller during activities beneath the deck. To place the maintenance support, refer to section Place the maintenance support (on page 35).

5.2.3 Waste disposal

Remove and dispose in a correct manner lubricating agents, used chemical products and other such matter. On this subject, the local environmental recommendations should be respected: see also section Environmental aspects (on page 18).

5.2.4 Forms and administration

It is recommended to keep a record for each periodic maintenance procedure performed on your equipment. The operator/engineer responsible for the maintenance should enter:

- His or her name.
- The date when the maintenance was carried out.
- The work carried out.

Daily periodic maintenance procedures do not require a signature or date - these procedures must be completed at the start of each work day.

5.3 Preventive maintenance schedule

The following table gives an overview of all the required maintenance actions for the maintenance engineer. The references in the last column refer to the appropriate maintenance procedures which are described in the next sections.

Interval	Action	Reference
Daily	Operator: Inspection for visual damage.	Visual inspection (on page 34)
Weekly	Operator: Inspection of all the functions of the dock leveller, even if these are not used very often.	
Yearly	Service Engineer: Check for damage in general and excessive wear on slide plates, guide rollers and hydraulic hoses.	
Yearly	Service engineer: Lubricate the hinges with multipurpose lubricant. If necessary, lubricate more often.	Lubrication (on page 34)

Interval	Action	Reference
Yearly	Service engineer: Check the hydraulic oil level. If necessary, check the oil level more often.	Check the hydraulic oil level (on page 36)
Yearly	Service engineer: Clean cylinders, pump unit and control box.	Cleaning (on page 35)
Yearly	Service engineer: Check if all moving parts run smoothly.	
2 Yearly	Service engineer: Replace the hydraulic oil.	Hydraulic oil replacement (on page 39).

Note
It is strongly recommended to have a maintenance contract.
Consult your supplier/dealer about annual maintenance and repairs/adjustments.

5.3.1 Visual inspection

Warning
Operators are not allowed underneath the leveller for inspections, this may only be done by qualified personnel.

During a visual inspection:

- Check all visible wires and cables for damage.
- Check the visible part of the hydraulic system for leakage.
- Check the deck and lip for cracks and deformation.
- Check if the deck is flush with dock platform.
- Check the functioning of all moving parts (deck, lip, sliding lamel, ctl-unit).

5.3.2 Lubrication

The schedule for lubrication mentioned in the Preventive maintenance schedule (on page 33).

Caution
Do not attempt to apply oil or grease to any component not mentioned in a maintenance procedure or schedule.

Contact your supplier/dealer if you discover an irregularity with the lubrication of any part.

Components to be lubricated:

- Lip rod
- Cylinder rods
- Toe guards

5.3.3 Cleaning

Clean the hinges and pit when necessary.

Regularly clean:

- Cylinders
- Pump unit
- Control box

Warning

*Always use the maintenance support when cleaning the pit. See Pay attention to safety (on page **32**).*

Caution

Avoid hinges and electric system when pressure cleaning.

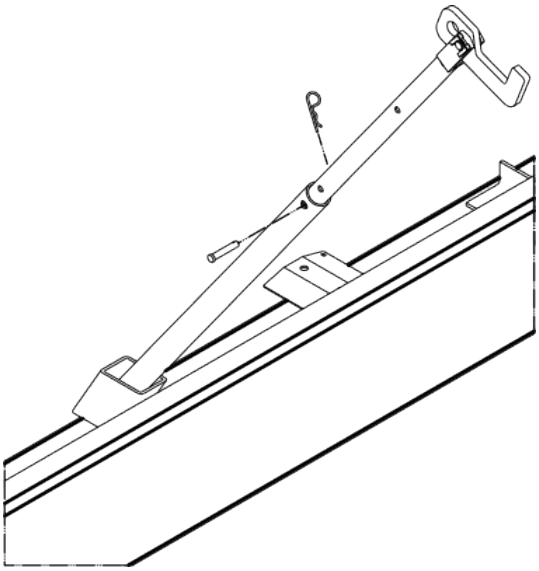
5.4 Regular preventive maintenance procedures

5.4.1 Place the maintenance support

To place the maintenance support:

1. Press [deck up] continuously to move the deck to the highest position with the lip completely extended.
2. When the deck is at the highest position, switch the main switch to "0". The deck will stay in the highest position.
3. Release [deck up].
4. Take the maintenance support out of its brace under the deck and let it hang downwards.
5. Remove the spring cotter and the locking pin.
6. Lower the movable tube until it rests in the bracket on the front angle.
7. Place the locking pin back in the best fitting hole and secure it with the spring cotter.
8. Switch the main switch to "1".

9. Press [deck up] briefly. The deck and the lip will descend until it rests on the maintenance support.



Maintenance support

5.4.2 Remove the maintenance support

To remove the maintenance support:

1. Press [deck up] continuously to move the deck to the highest position with the lip completely extended.
2. When the deck is at the highest position, switch the main switch to "0". The deck will stay in the highest position.
3. Release [deck up].
4. Remove the spring cotter and remove the locking pin.
5. Slide the movable tube of the maintenance support upwards until you have the minimum length.
6. Place the locking pin back in the best fitting hole and secure it with the spring cotter.
7. Place the maintenance support back into its brace under the deck.

5.4.3 Check the hydraulic oil level

To check the hydraulic oil level in the tank:

1. Place the maintenance supports (see "Place the maintenance support" on page 35).
2. Switch the main switch to '0'.
3. Unscrew the filler cap of the oil tank and wipe the dip stick clean.
4. Screw the filler cap on the tank opening.
5. Unscrew the filler cap and read the oil level from the dip stick.
   With both cylinders completely extended, the dip stick must be in the oil for 25 to 30 mm.

- If necessary, drain the excess of oil by unscrewing the plug at the bottom.
- If necessary, top up the hydraulic oil to the correct level.

> Note
> If there is too much oil in the system, the oil tank will overflow when both cylinders are retracting.

6. Screw the filler cap back onto the tank opening.
7. Remove the maintenance support (on page 36).

5.5 Corrective maintenance

5.5.1 Required knowledge

In order to be able to repair your machine, you must have knowledge of the following subjects:

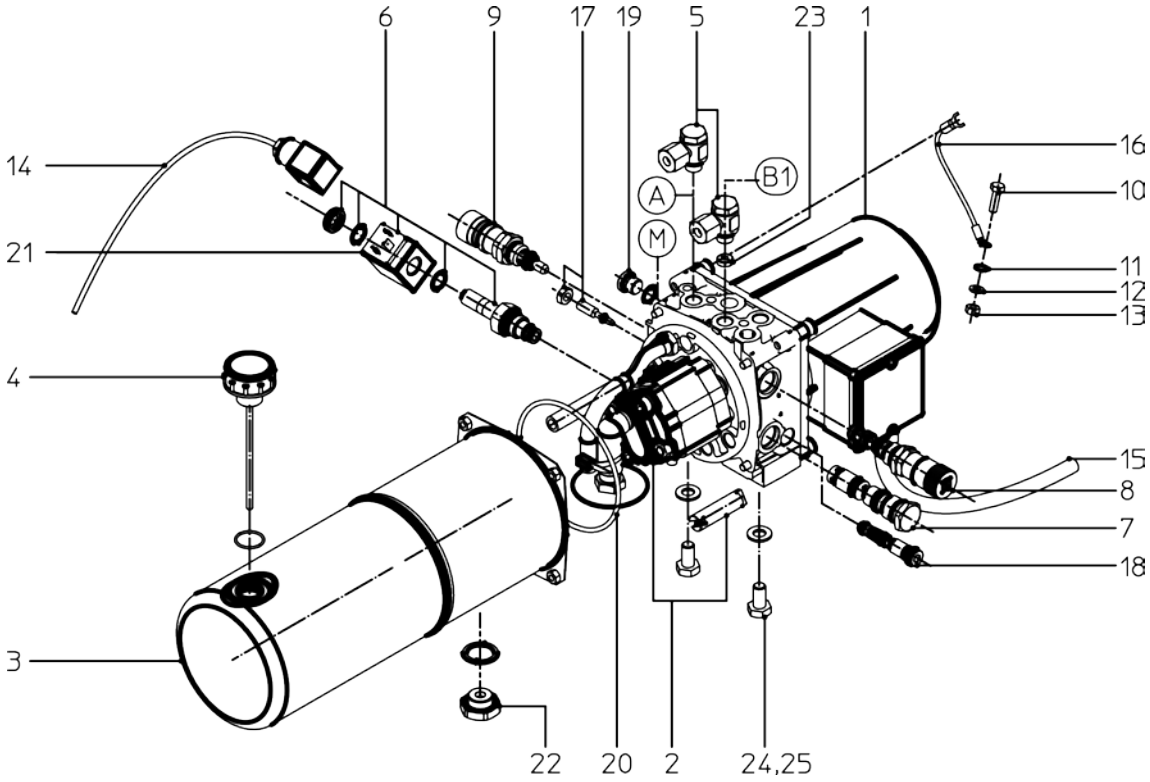
- mechanical systems,
- hydraulic systems,
- electrical systems.

Plan maintenance and repairs before you start repair works:

- Consider what procedures are necessary
- What the consequences of those actions are.
- If necessary, ask for help from third parties or consult your supplier.

5.5.2 Hydraulic unit adjustment

Pressures are measured at the measuring port M (1/4" BSP), which is located at the side of the valve block, near connecting port A (main cylinder).



Hydraulic unit

> **Note**
> Turn the valves anti-clockwise to reduce the pressure and clockwise to increase the pressure.

To adjust the pressure relief valve (9) and the sequence valve (8):

Refer to the figure for the correct adjustment of the hydraulic motor pump unit.

1. Adjust the setting of the pressure relief valve (9) circa 15 bar higher than the pressure setting of the sequence valve (8). The lip should not extend before the deck is in its highest position. This is why the setting of the sequence valve must be 15 bar higher than the maximum pressure in the main cylinder.
2. Measure the descending speed of the deck from the highest position with extended lip, to the lowest position with extended lip. This descending time must be circa 9 to 10 seconds. Other speed settings will affect the operation of the automatic safety device.
3. If required, change the speed of descent by adjusting at the throttle (17) in the motor pump unit. Turn this clockwise to decrease the speed of descent and anti-clockwise to increase the speed.

Warning
Do not turn the speed adjusting throttle (17) outwards to its maximum. This may cause the deck to plummet down.

Caution
The safety valve in the main cylinder is set at the factory and may not be altered.

Note
The automatic safety device is only activated if a load of 1500 kg or more is on the dock leveller.

5.5.3 Hydraulic oil replacement

Hydraulic oil content: 2,1 liter.
Stertil advises the use of the following types of oil:

- Hydraulic oil: Unil HVC SX 15.
- Alternative oil: Mobil DTE 10 Excel 15.
- Biological degradable oil: Panolin SYNTH 15 (only on request).
- In case of very low temperatures (≤ -50 °C): Chevron Aircraft oil 5606H.

Note
The different types of oils should not be mixed. After draining the oil from the lift and refilling the system with new oil, a low mix percentage is allowed.

Warning
Warranty will expire when not prescribed oil is used and/or different types of oils are mixed.

Replacement procedure:

1. Place the maintenance support (on page 35).
2. Disconnect the main cylinder from the deck.
3. Push the main cylinder in to collect the oil.
4. Disconnect the lip cylinder from the lip.
5. Push the cylinder in to collect the oil.
6. Remove the rear mounting bolt of the pump unit.
7. Turn the tank side of the pump unit away from the front angle, until the drain plug clears the front angle.
8. Remove the drain plug, collect the oil in a container.
9. Replace the O-ring, reinsert the drain plug and tighten.

10. Refill the tank. Use the prescribed type and quantity oil. Do not overfill.
11. Place filler cap back, and screw it on by hand.
12. Reposition the pump unit, reinsert and tighten the mounting bolt.
13. Manually pull out the cylinder rods to the required length and reconnect them to the deck and lip.
14. Remove the maintenance support (on page 36).
15. Completely raise and lower the deck and lip several times to vent the system.
16. Check the hydraulic oil level (on page 36) and top up or drain if necessary.

5.5.4 Request for repair

If the services of a Stertil engineer are required, it is necessary to have the following information:

- The serial number of the machine.
- A clear description of the fault as accurate as possible.

5.5.5 Communication

In order to make a diagnosis, locate a possible fault or suggest a solution, it is preferred to explain the fault by phone, while standing nearby the machine.

5.5.6 Spare parts

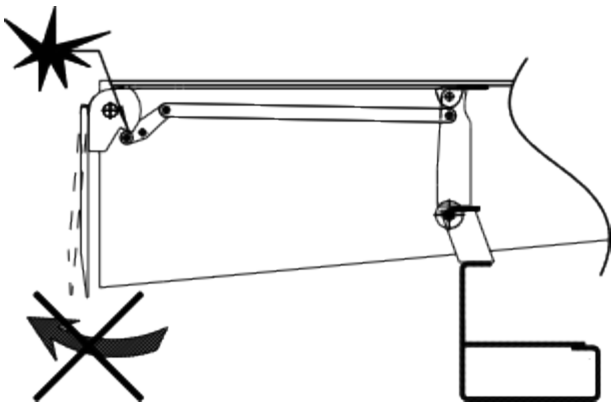
Use only the spare parts as recommended by Stertil.

When ordering spare parts, always quote the serial number of the machine and the item number.

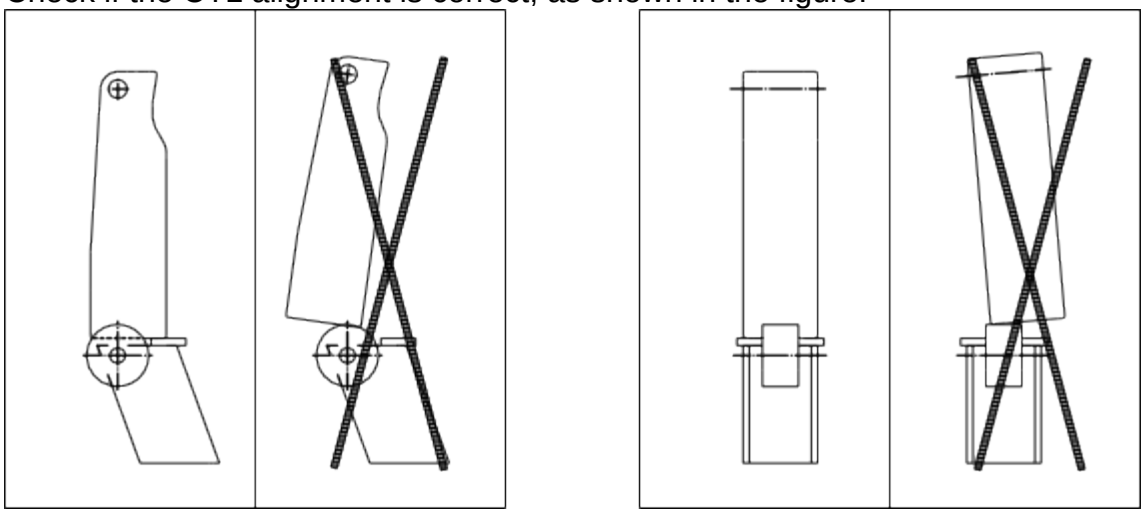
5.6 Position of the CTL

In the parked position the CTLs must rest correctly aligned on the supports. To check the position of the CTLs:

1. Look through the gap between deck and lip.

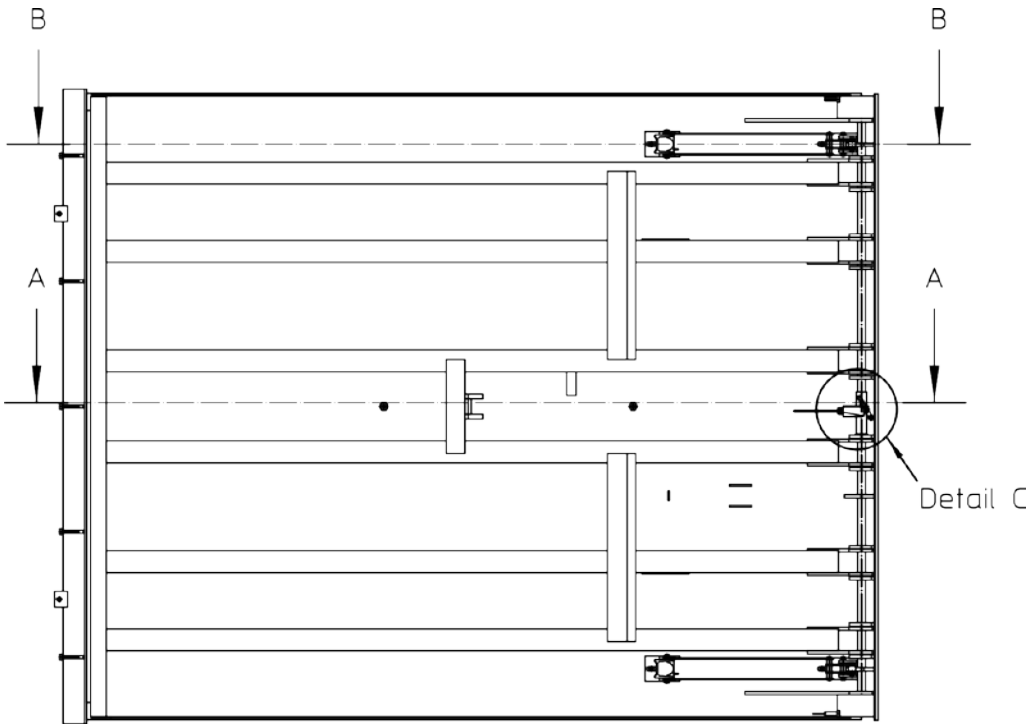


2. Check if the CTL alignment is correct, as shown in the figure.

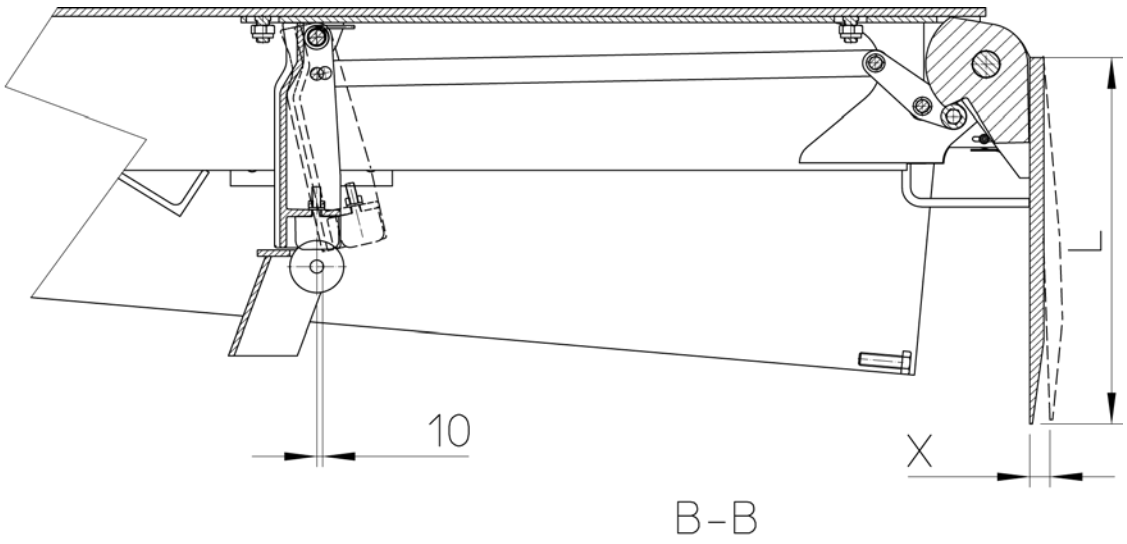


3. Adjust if necessary, see Adjusting the CTL (on page 41).

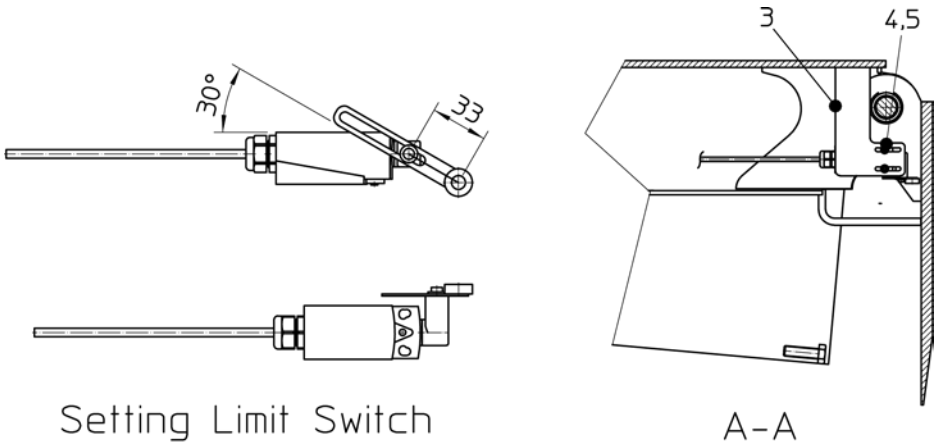
5.6.1 Adjusting the CTL

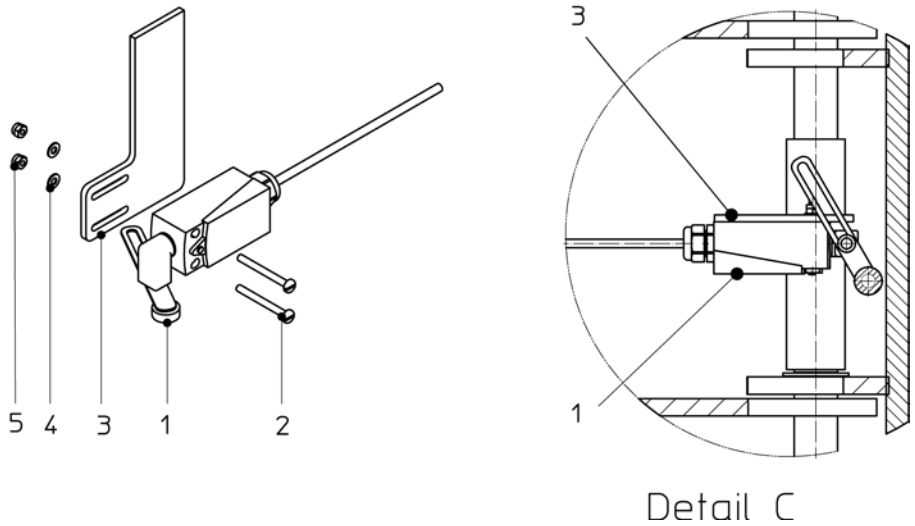


Bottom view dock leveller



Dock leveller cross-section B-B





BDC Limit Switch

To adjust the CTL:

1. Check the CTL alignment, see Position of the CTL (on page 40).
2. Press [deck up].
   When the lip starts to extend, the CTLs should start moving simultaneously as shown in view B-B.
   - X depends on lip length L (check model) Refer to table CTL configuration data.
   - The CTL displacement as shown in view B-B (10 mm from the front of CTL to center of support roller) must occur when the lip moves distance X.
3. The play should be as little as possible.
   To minimize play the roller must rest on the cam when the lip and CTL are in a vertical position.
   If it is not:
   a) Loosen the mounting bolts of the CTL-unit.
   b) Reposition the CTL-unit and re-torque the bolts.
4. To set distance X, see Adjusting the limit switch (only with optional BDC) (on page 43).
   When the lip reaches the set distance X:
   - The lip stops moving.
   - The CTLs are partially retracted and are not on the supports.
   - The deck can lower below dock level.

L (mm)	350	400	450	500	550	600
X_{min} (mm)	31	36	40	45	48	52
X_{max} (mm)	50	50	50	50	50	55

CTL configuration measurements

5.6.2 Adjusting the limit switch (only with optional BDC)

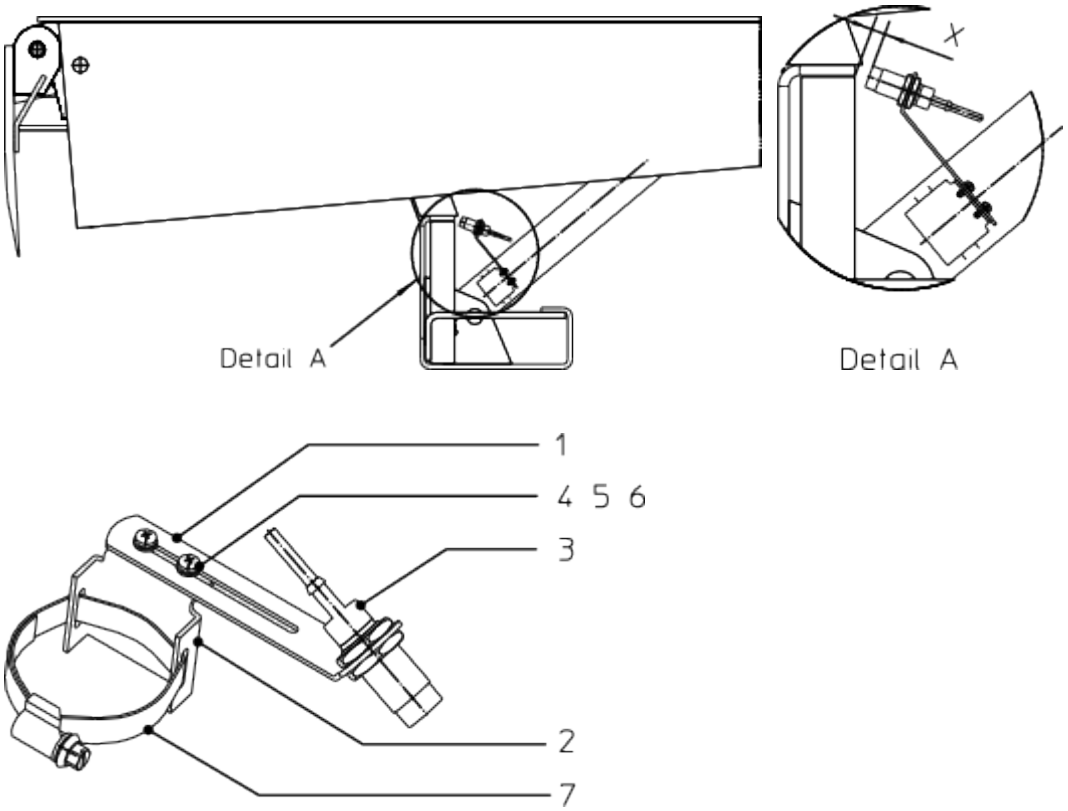
The numbers in this section refer to the figures and table in Adjusting the CTL (on page 41).

The operating principle of the limit switch:

1. When the lip extension of the lip reaches X, the limit switch (1) sends a signal to the control box. Refer to the table for applicable dimensions.
2. Based on this signal the control box stops the lip movement.
3. The limit switch is mounted on a bracket (3) with slot holes. The exact position of the limit switch has to be determined by trial and error.
   - The limit switch (normally open) is activated when the lip is in.
   - The limit switch is deactivated when dimension X is reached

5.7 AR (option)

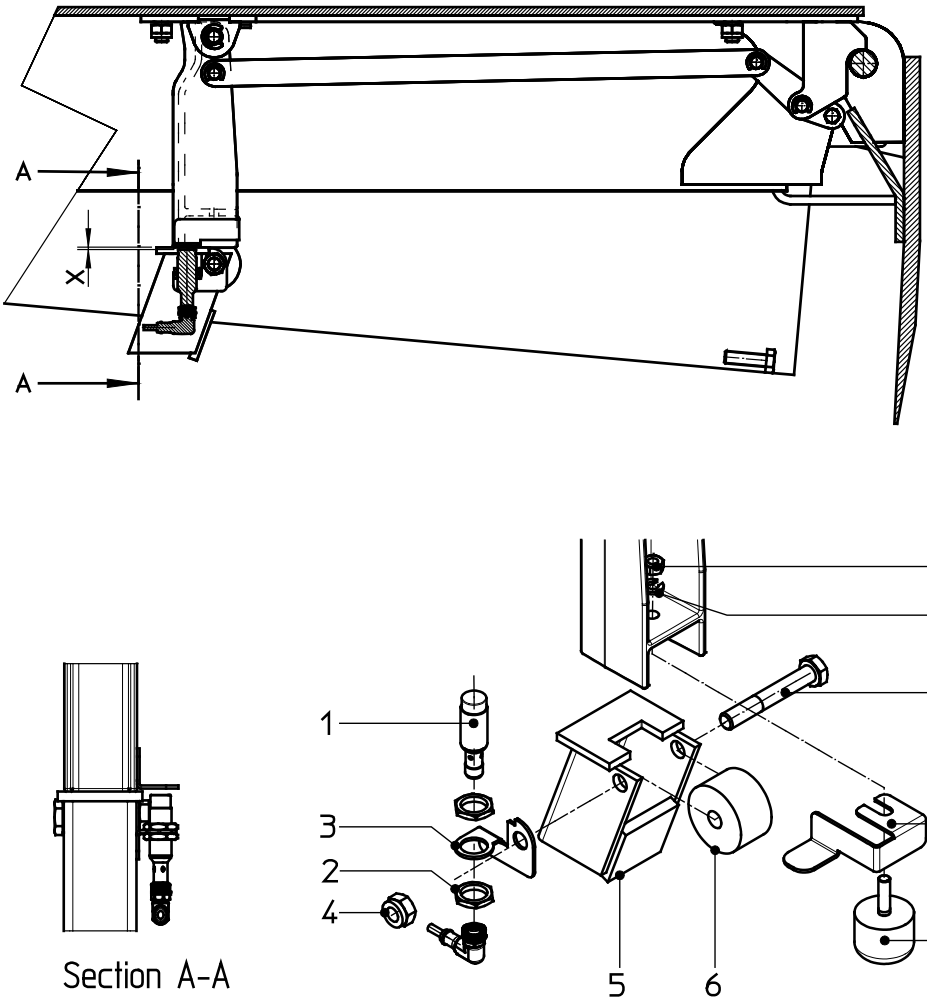
The AR system is based on a sensor which detects the edge of the front angle just before the deck reaches the highest position.
The pump shuts off as soon as the edge of the front angle is detected, the deck will now descend to the parked position.



AR (option)

5.8 PLS (option)

The PLS working principle is based on a sensor which detects if the CTLs rest on the supports and sends a signal to the control box.



PLS (option)

5.8.1 Adjusting the PLS

The numbers in this section refer to the figures in PLS (option) (on page 44).

To adjust the sensor:

1. Make sure that:
   - The CTL is positioned correctly, see Position of the CTL (on page 40).
   - The sensor functions correctly.
   - The brackets are not damaged.
2. Place the maintenance support *(on page 35).*
3. Switch the main switch to "1".
4. Push [deck up] briefly to activate control current.
5. Loosen the nuts (2) of the sensor.
6. Adjust the distance (X). To prevent damage to the sensor the distance (X) has to be 2...4 mm.

> Note
> The maximum reach of the sensor is 8 mm.
> The sensor has a LED that goes on when the sensor is activated.

7. Tighten the nuts (2).

6 TROUBLESHOOTING

6.1 Common faults and solutions

Caution
*Always use the maintenance support during all cleaning, maintenance or repairwork. See section Place the maintenance support (on page **35**).*

Consult your dealer/supplier for the correct settings.

Warning
Only authorized personnel is allowed to carry out maintenance.

Warning
Incorrect adjustments, repairs and maintenance can endanger people, goods, etc.

6.1.1 The deck does not rise when [deck up] is pressed because the motor is not running.

Cause	Solution
No mains supply.	Switch on the mains supply.
No mains voltage present.	Contact your local service department.
The door is not open, or not open enough.	Open the door.
The door sensor is defective or not set correctly.	Adjust or replace the door sensor.
If installed: is vehicle restraint system applied?	Apply vehicle restraint system.

6.1.2 The deck does not rise (sufficiently) even though the motor is running.

Cause	Solution
Load on the deck.	Remove the load from the deck.
Mechanical damage.	Check for mechanical damage.
Oil leakage.	Check the main cylinder, hose and connections for leakage.
Oil level in the hydraulic oil tank too low.	Check the hydraulic oil level (on page 36).
Not enough oil pressure.	Check whether the pump has built up any pressure. This can be indicated by enclosing the hydraulic hose of the main cylinder with your hand.
Wrong rotation direction of the electric motor.	Invert the rotation of the motor and retry. See section Connections (on page 28).
Wrong adjustment of the pressure relief valve.	Check that the pressure relief valve is set correctly.

6.1.3 The lip of the dock leveller does not (sufficiently) extend.

Cause	Solution
Oil level in the hydraulic oil tank too low.	Check the oil level with the dip-stick in the filling cap.
Not enough oil pressure.	Check whether the pump has built up pressure. This is indicated by the hydraulic hose of the lip cylinder.
Oil leakage.	Check the lip cylinder and hoses for leakage.
Wrong operation or adjustment of the sequence valve.	Check the operation and setting of the sequence valve.
Mechanical damage.	Check for mechanical damage.
Wrong adjustment of the pressure relief valve.	Check that the pressure relief valve is set correctly.
The optional BDC is switched on. The lip does not extend completely.	Switch BDC switch to '1'.

6.1.4 The lip is extended before the deck rises.

Cause	Solution
Load on the deck.	Remove the load from the deck.
Mechanical damage.	Check for mechanical damage.
Wrong operation or adjustment of the sequence valve.	Check the operation and setting of the sequence valve.

6.1.5 The deck does not descend or does not descend sufficiently.

Cause	Solution
Stop valve defective.	Check the operation of the stop valve.
The safety valve in the main cylinder is blocked.	Shortly press the control button one or more times.
The speed of descent is not set correctly.	Adjust lowering speed with adjustable throttle.
The deck descends too quickly, causing the safety valve to close.	Adjust lowering speed with adjustable throttle.
Mechanical damage or obstruction.	Check for mechanical damage or obstruction. Check that the maintenance support has been removed.
Adjustable throttle is blocked.	Turn the adjustable throttle completely in and re-adjust as described in section Hydraulic unit adjustment (on page 38).

6.1.6 The deck does not follow the truck's movements.

Cause	Solution
There is an obstruction.	Remove the obstruction.
The safety valve in the main cylinder is blocked.	Briefly press [deck up] one or more times.
There was a power loss.	1. Switch the main switch to '1'. 2. Briefly press [deck up] to activate the control current.

6.1.7 The deck is not flush with the dock platform in parked position.

Cause	Solution
There is an obstruction.	Remove the obstruction.
Cross traffic legs are not positioned correctly.	Press [deck up] to let the deck rise. Release to let the deck descend into parked position.

6.1.8 The lip does not move to the vertical (parked) position.

Cause	Solution
Mechanical damage.	Check for mechanical damage.
Orifice in port B1 is blocked. (pos 23 in Hydraulic unit adjustment (on page 38)).	Check the orifice in port B1 for blockage.

6.1.9 The optional BDC does not function correctly.

Cause	Solution
BDC switch on operating panel defective.	Check functioning of the switch.
Lip switch not correctly adjusted or defective.	Check functioning and adjustment of the lip switch.
Wiring defective.	Check wiring.
Mechanical damage cross traffic support mechanism.	Check cross traffic support mechanism for damage and correct functioning.

6.1.10 The optional AR does not function correctly.

Cause	Solution
AR is not installed.	Install option.
Sensor is not correctly aligned or broken.	See AR (option) (on page 44).

6.1.11 PLS does not function correctly.

Cause	Solution
The sensor does not detect the CTL, or does not detect the CTL correctly.	Adjust the sensor, see PLS (option) (on page 44).

6.1.12 The door does not open.

Cause	Solution
No mains supply.	Switch on the mains supply.
No mains voltage present.	Reconnect the mains voltage.
If installed: is vehicle restraint system applied?	Apply vehicle restraint system.
Check the safety circuit.	See Safety Circuit (on page 13).

6.1.13 The door does not close.

Cause	Solution
The deck is not in parked position.	Press [deck up] to let the deck rise. Release to let the deck descend into parked position.
The optional PLS does not function correctly.	See PLS does not function correctly. (on page 51)

6.2 Technical support

If the tips provided in this chapter do not answer your question or solve your problem, please contact your local Stertil service department or distributor.

For a complete list of Stertil distributors and local service departments, please refer to the website of Stertil on the internet: www.stertil.nl

7 LIST OF PARTS AND APPENDICES

7.1 Deck and lip

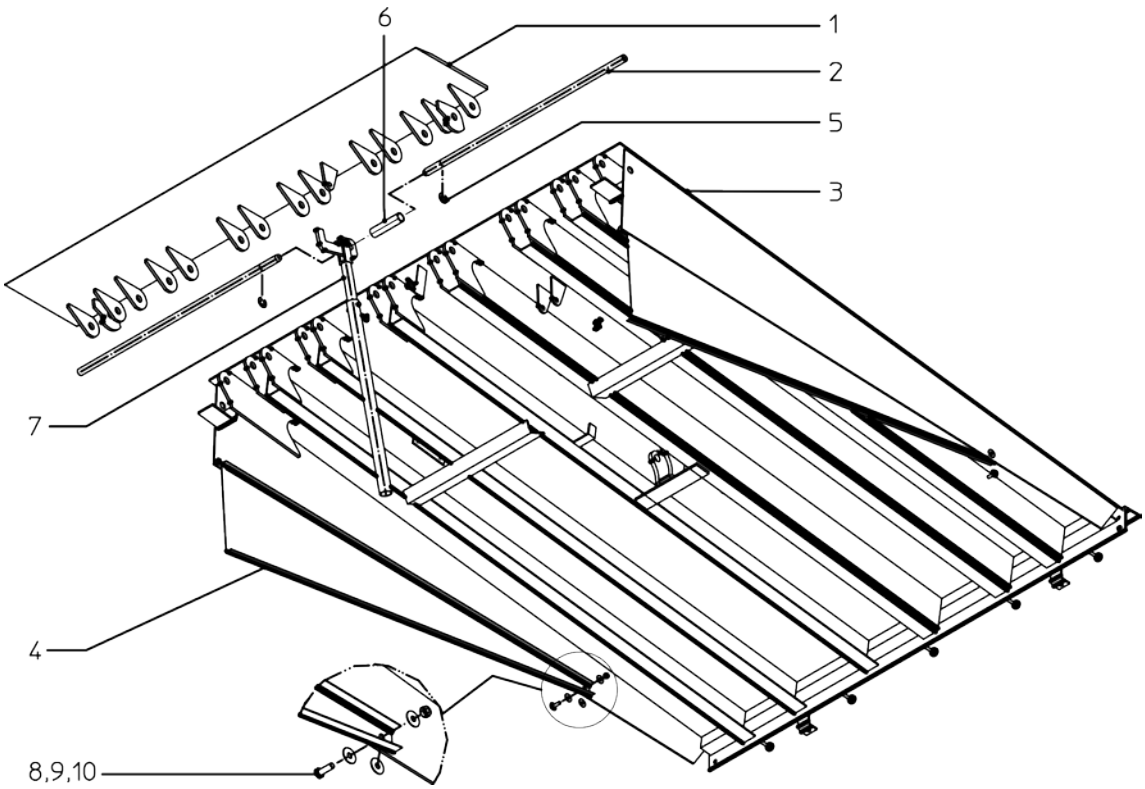


Table Lip assembly (1) (thread plate)

See section Product identification (on page 20) for more information

Width/Length	35	40	45	50	55	60	Lip rod (2)
SF ..17	06000300	06010300	06020300	06030300	06040300	06050300	06000002
SF ..18	06002300	06012300	06022300	06032300	06042300	06052300	06020002
SF ..20	06004300	06014300	06024300	06034300	06044300	06054300	06040002
SF ..21	06006300	06016300	06026300	06036300	06046300	06056300	06060002
SF ..22	06008300	06018300	06028300	06038300	06048300	06058300	06080002

Table Deck assembly (3) (thread plate)

Width/ Length	SF 20 . .	SF 22 . .	SF 25 . .	SF 28 . .	SF 30 . .	SF 35 . .	SF 40 . .	SF 45 . .
SF ..17	06000100	06010100	06020100	06030100	06040100	06050100	06060100	06070100
SF ..18	06002100	06012100	06022100	06032100	06042100	06052100	06062100	06072100
SF ..20	06004100	06014100	06024100	06034100	06044100	06054100	06064100	06074100
SF ..21	06006100	06016100	06026100	06036100	06046100	06056100	06066100	06076100
SF ..22	06008100	06018100	06028100	06038100	06048100	06058100	06068100	06078100

Table Sliding lamel (4)

Type	SF 20 . .	SF 22 . .	SF 25 . .	SF 28 . .	SF 30 . .	SF 35 . .	SF 40 . .	SF 45 . .
No.	06000215	06010030	06020030	06030030	06040030	06050030	06060030	06070030

Table Additional parts

Index	Reference	Description	Remarks
5	65062036	Retaining ring	
6	06000028	Spacer	
7	06000020	Maintenance support	
8	65025007	Button head screw	
9	65055712	Washer	
10	65051034	Self locking nut	

7.2 Frame

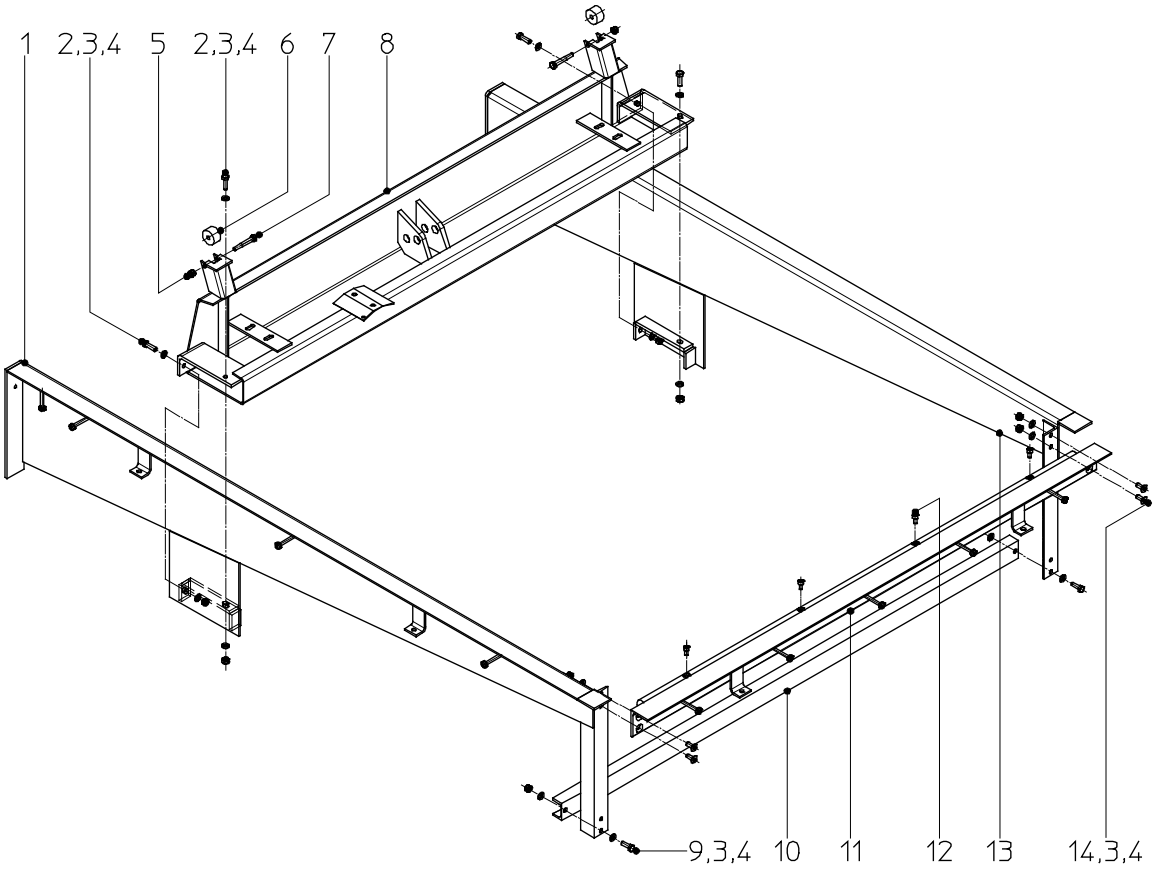


Table Side panel L/R

	SF 20 . .	SF 22 . .	SF 25 . .	SF 28 . .	SF 30 . .	SF 35 . .	SF 40 . .	SF 45 . .
Conventional R (1)	06000215	06010215	06020215	06030215	06040215	06050215	06060215	06070215
QMS R (1)	06000515	06010515	06020515	06030515	06040515	06050515	06060515	06070515
Conventional L (13)	06000210	06010210	06020210	06030210	06040210	06050210	06060210	06070210
QMS L (13)	06000510	06010510	06020510	06030510	06040510	06050510	06060510	06070510

Table Frame parts

	Rear hinge (11)		Frontangle (8)	Rear support (10)	Diagonal shore (35/40/45.. only)
	Conventional	QMS			
SF . . 17	06000225	06100225	06000220	06000230	06050235
SF . . 18	06002225	06102225	06002220	06002230	06052235
SF . . 20	06004225	06104225	06004220	06004230	06054235
SF . . 21	06006225	06106225	06006220	06006230	06056235
SF . . 22	06008225	06108225	06008220	06008230	06058235

Table Additional parts

Index	Reference	Description	Remarks
2	65003449	Screw	
3	65055021	Washer	
4	65050136	Hex nut	
5	65051036	Self locking nut	
6	02400006	Guide roller	
7	65002457	Hex head screw	
9	65003448	Hex head screw	
12	65012443	Socket head screw	
14	65025057	Countersunk head screw	

7.3 Hydraulic unit

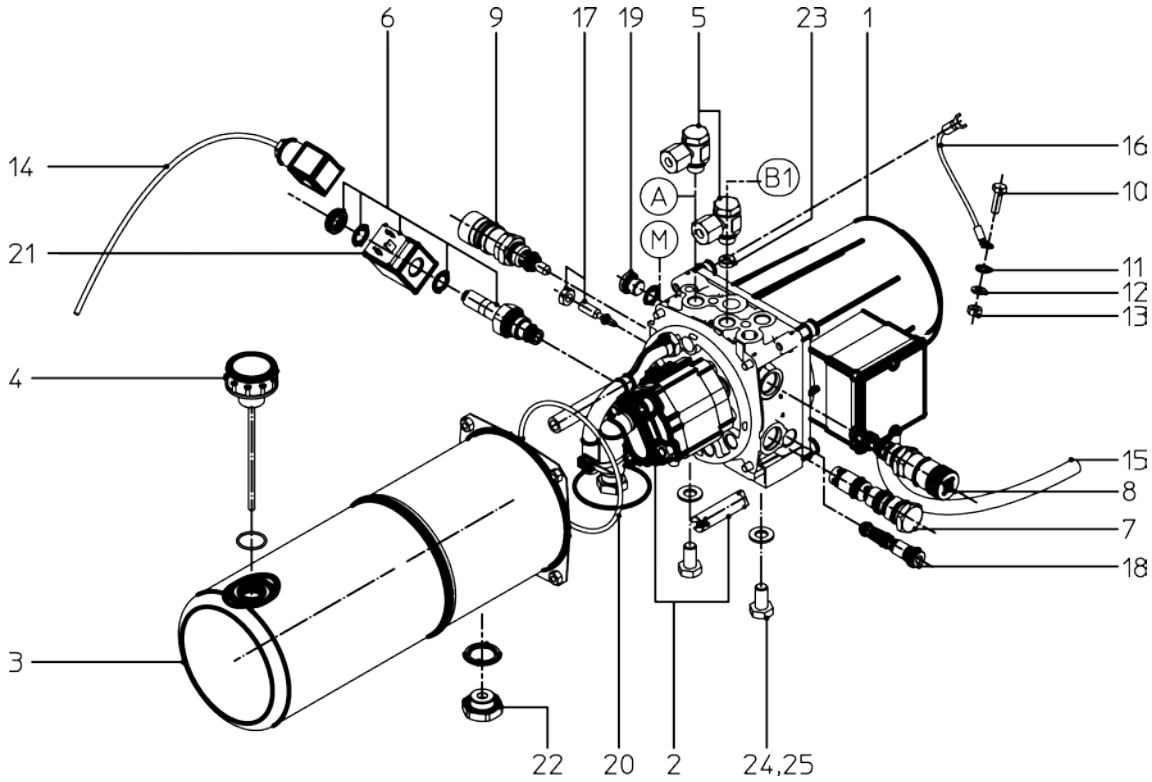
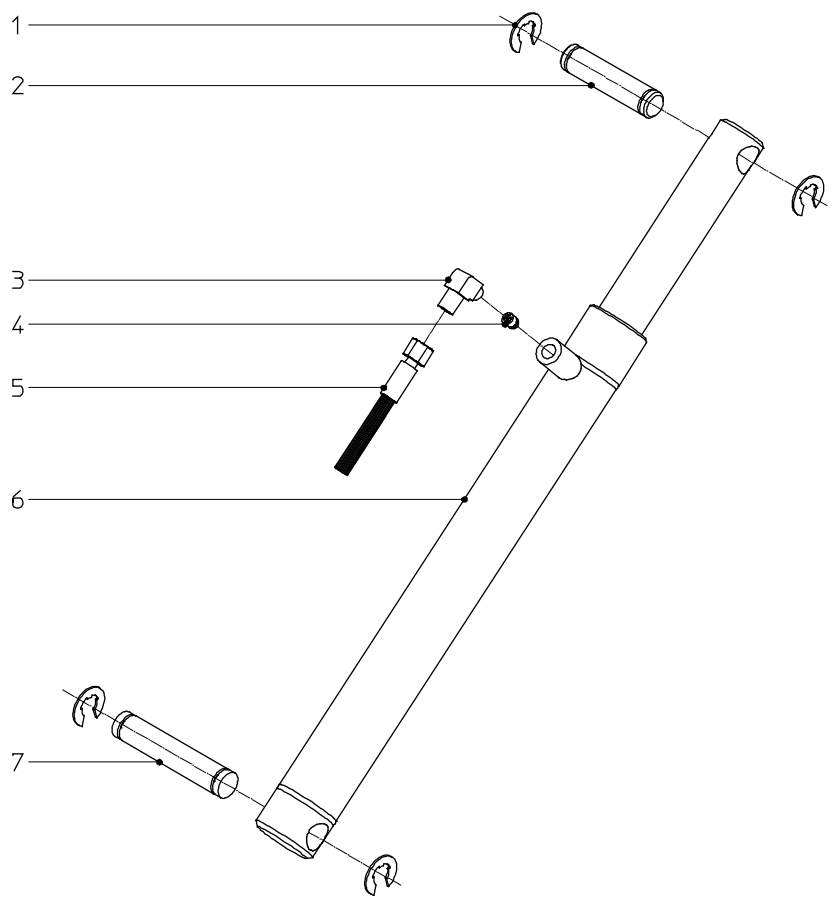


Table Replacement parts

Index	Reference	Description	Remarks
	06000620	Hydraulic unit 3x230/400V 50Hz	Excl. adaptor 5
	06010620	Hydraulic unit 3x230/400V 60Hz	Option
	06020620	Hydraulic unit 3x200V 50Hz	Option
	06030620	Hydraulic unit 3x200V 60Hz	Option
1	02335611	Electric motor 3x230/400V 50Hz	
2	06000612	Pump + coupling	
3	02335613	Tank	
4	02335634	Cap with dip stick (120 mm)	
5	68702212	Adaptor	
6	68308002	Stop valve (incl. coil)	See Hydraulic diagram (on page 72)
7	02335666	Special valve (A-port)	See Hydraulic diagram (on page 72)
8	02335667	Sequence valve	See Hydraulic diagram (on page 72)
9	03700529	Pressure relief valve	See Hydraulic diagram (on page 72)
10	65003287	Screw	
11	1038.27.00.64	Toothed washer	
12	65055015	Washer	
13	65050128	Nut	
14	02210021	Control cable	
15	01810763	Motor cable	
16	02335602	Earth cable	
17	-	Throttle (can not be dismounted)	See Hydraulic diagram (on page 72)
18	02335670	Special valve (B1-port)	See Hydraulic diagram (on page 72)
19	06000621	Plug (M-port)	
20	06000622	O-ring tank	
21	69481501	Coil	
22	-	Drain plug	
23	-	Orifice (B1-port)	
24	65003403	Hex head screw	
25	65055049	Washer	

7.4 Main cylinder



Type	Reference
SF 20 . .	06000625
SF 22 . .	06010625
SF 25 . .	06020625
SF 28 . .	06030625
SF 30 . .	06030625
SF 35 . .	06050625
SF 40 . .	06050625
SF 45 . .	06060625

Table Replacement parts

Index	Reference	Description	Remarks
1	65062036	Retaining ring	
2	02210019	Hinge pin (deck side)	
3	68700813	Adaptor	
4	68228015	Safety valve	
5	02406001	Hydraulic hose main cylinder	
6	See previous table	Main cylinder (incl. 3 and 4)	
7	01510021	Hinge pin (frame side)	

7.5 Lip cylinder

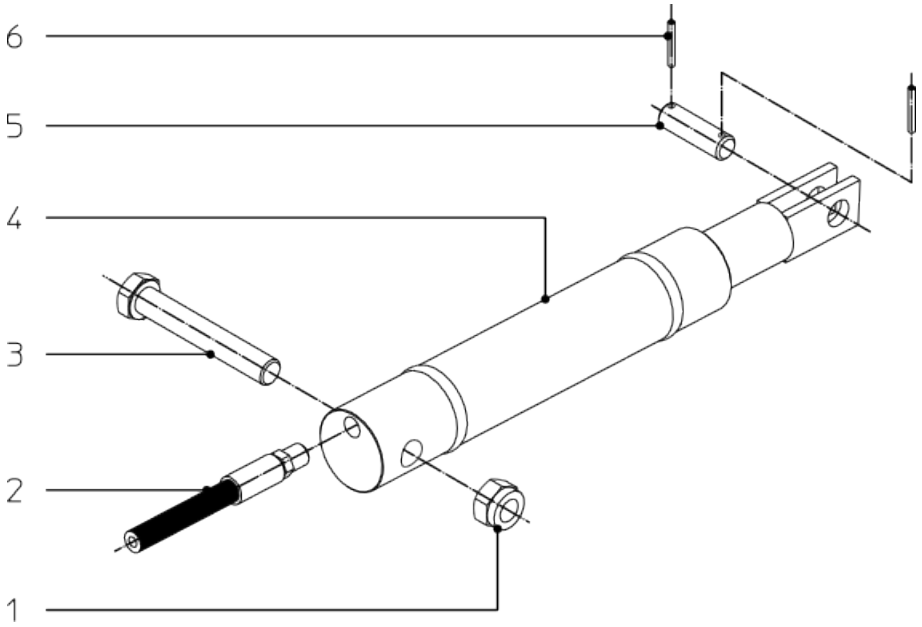


Table Replacement parts

Index	Reference	Description	Remarks
1	65051040	Self locking nut	
2	06000602	Hydraulic hose lip cylinder	
3	65002542	Hinge screw (deck side)	
4	06000680	Lip cylinder (standard)	35, 40, 45, 50 lip length
4	01510550	Lip cylinder (heavy duty)	55 and 60 lip length
5	01510020	Hinge pin (lip side)	
6	65077101	Cotter pin	Only with 01510550

7.6 Cross traffic legs

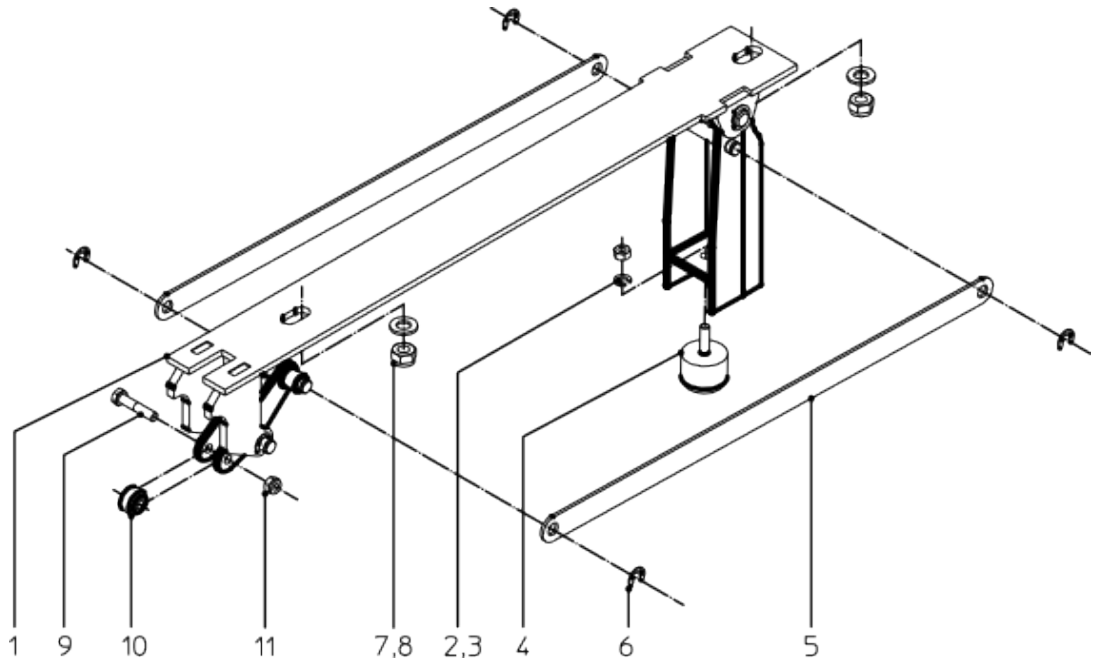


Table Replacement parts

Index	Reference	Description	Remarks
1	06000040	CTL-unit ..	20/22/25/28/30
1	06050040	CTL-unit ..	35/40/45
2	65050132	Nut	
3	65058024	Spring washer	
4	66201046	Rubber buffer CTL	
5	06000041	CTL pull rod	
6	65062026	Retaining ring	
7	65051032	Nut	
8	65002369	Bolt	
9	65051036	Nut	
10	1024.38.00.06	Roller	

7.7 BDC (option)

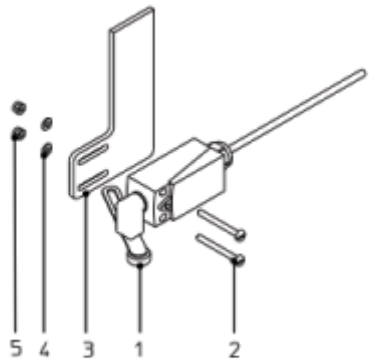


Table Replacement parts

Index	Reference	Description	Remarks
1	02409006	Limit switch (incl cable)	Limit Switch:69171021
2	65030230	Bolt	
3 (ref)	06000113	Bracket for limit switch	part of deck assembly
4	65055013	Washer	
5	65051024	Nut	

7.8 AR (option)

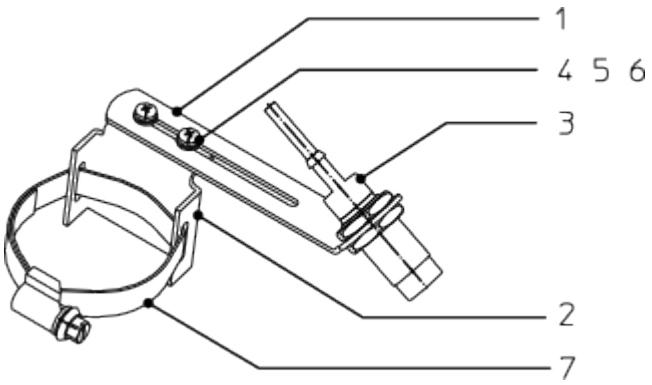


Table Replacement parts

Index	Reference	Description	Remarks
1	06000963	Mounting bracket	
2	06000964	Mounting bracket	
3	69160001	Inductive sensor.	
4	65034219	Bolt	
5	65058014	Washer	
6	65055013	Nut	
7	65099028	Hose clamp	

7.9 PLS (option)

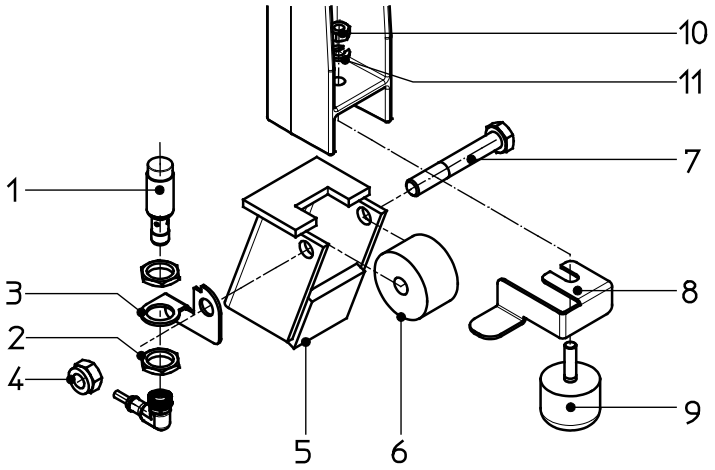
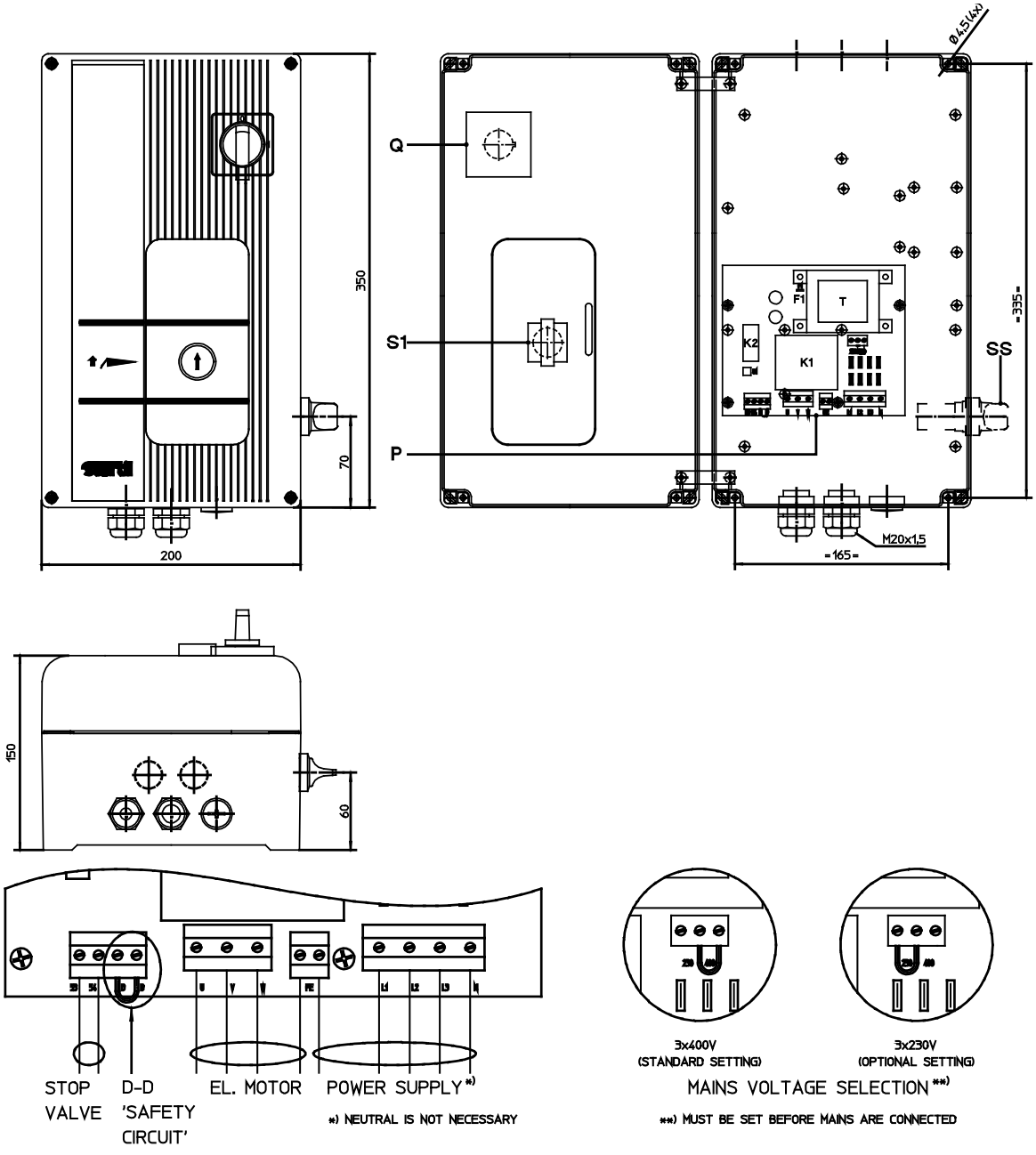


Table Replacement parts

Index	Reference	Description	Remarks
1	69160004	Inductive sensor	
2	-	Nut	
3	06000973	Mounting bracket sensor	
4 (ref)	65051036	Nut	
5 (ref)	-	Support	
6 (ref)	02400006	Roller	
7 (ref)	65002457	Bolt	
8	06000972	Bracket CTL	
9 (ref)	66201046	Rubber buffer CTL	
10 (ref)	65050132	Nut	
11 (ref)	65058024	Spring washer	

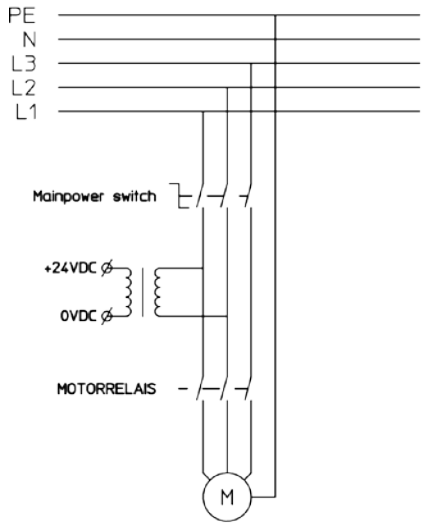
7.10 Control box



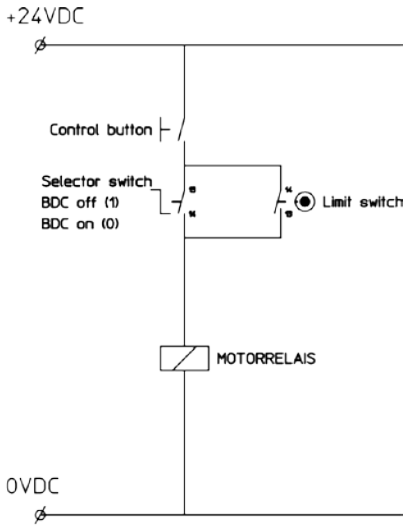
Replacement parts

Index	Reference	Description	Remarks
-	06050700	Control Box	complete
-	06050702	Cover	without Q and S1
Q	69120038	Main Switch	
K1	-	Motor Relay	
P	69900270	PCB basic 230/400V	
F1	-	Automatic fuse	
T	-	Transformer	
S1	69141131	Push button switch	comlete
SS	69141132	Selector switch	optional

7.11 Electric diagram BDC - Basic Control box (option)

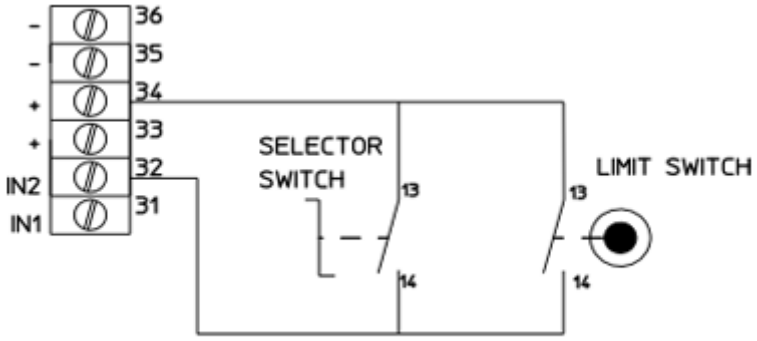


Power circuit



Control circuit

7.12 Electrical diagram BDC - SSC/SMC Control box (option)



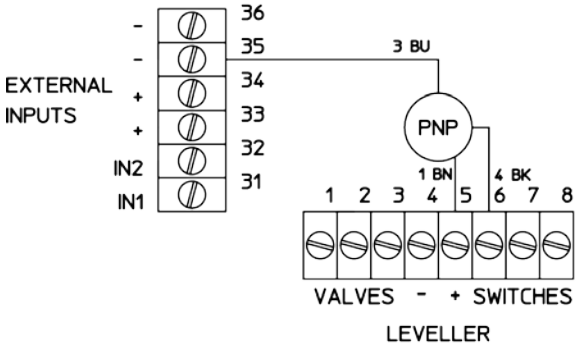
SBC/SMC Control Box connection (Schematic)

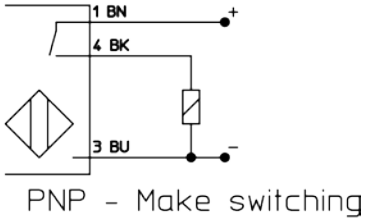
The software settings for the BDC have to be made manualy.

- Function: BDC Setting: OFF
- Function INPUT2 Setting: MOD9

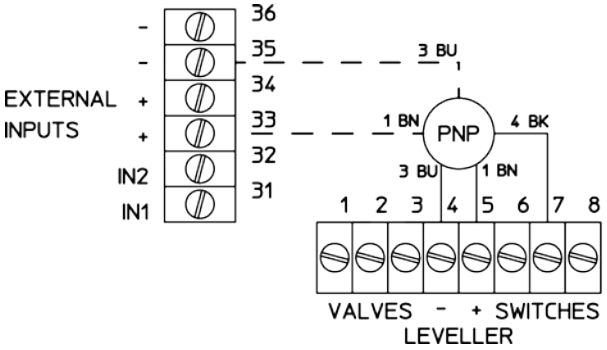
Use the Plug in Display to make the following changes, see SSC/SMC control box manual.

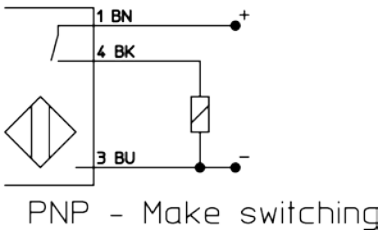
7.13 Electric diagram - AR (option)





7.14 Electric diagram - PLS (option)





7.15 Hydraulic diagram

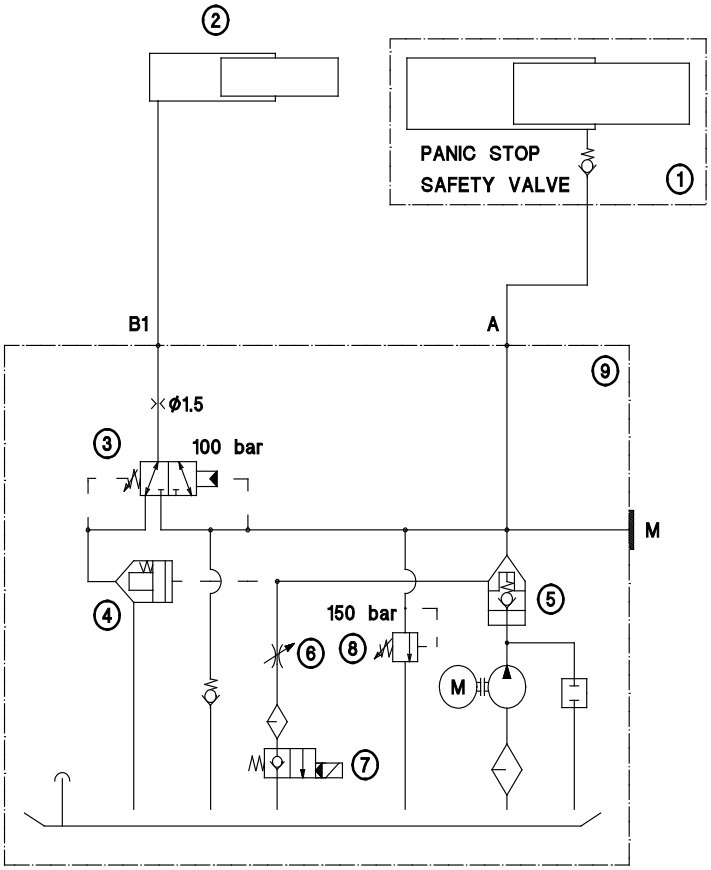


Table Replacement parts

Index	Reference	Description	Remarks
1		Main cylinder	
2		Lip cylinder	
3		Sequence valve	
4		Special valve	
5		Special valve	
6		Throttle	
7		Stop valve	
8		Pressure relief valve	
9		Hydraulic unit	
A		Connection port 1/4" BSP	
B		Connection port 1/4" BSP	
M		Measuring port 1/4" BSP	

7.16 Pit layout - conventional

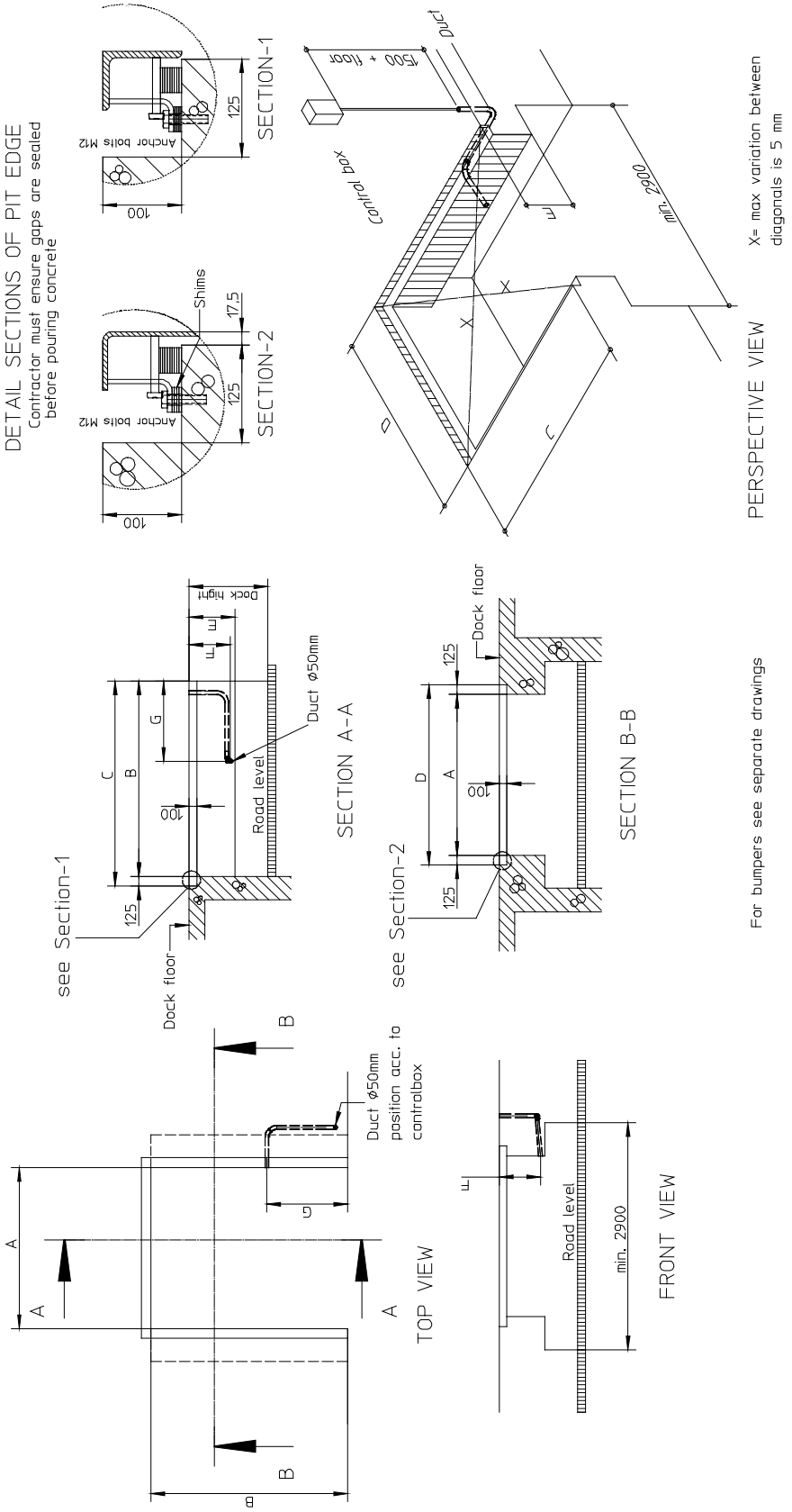


Table Width

	A (mm +0/-5)	D (mm)
SF . . 17	1810	2060
SF . . 18	1890	2140
SF . . 20	2060	2310
SF . . 21	2170	2420
SF . . 22	2310	2560

Table Length

	B (mm +0/-5)	C (mm)	E (mm)	F (mm +5/-5)	G (mm)
SF 20 . .	2000	2125	585	525	1025
SF 22 . .	2195	2320	585	525	1025
SF 25 . .	2500	2625	585	525	1025
SF 28 . .	2805	2930	585	525	1025
SF 30 . .	3000	3125	585	525	1025
SF 35 . .	3500	3625	700	640	875
SF 40 . .	4000	4125	700	640	875
SF 45 . .	4500	4625	700	640	875

7.17 Pit layout - QMS

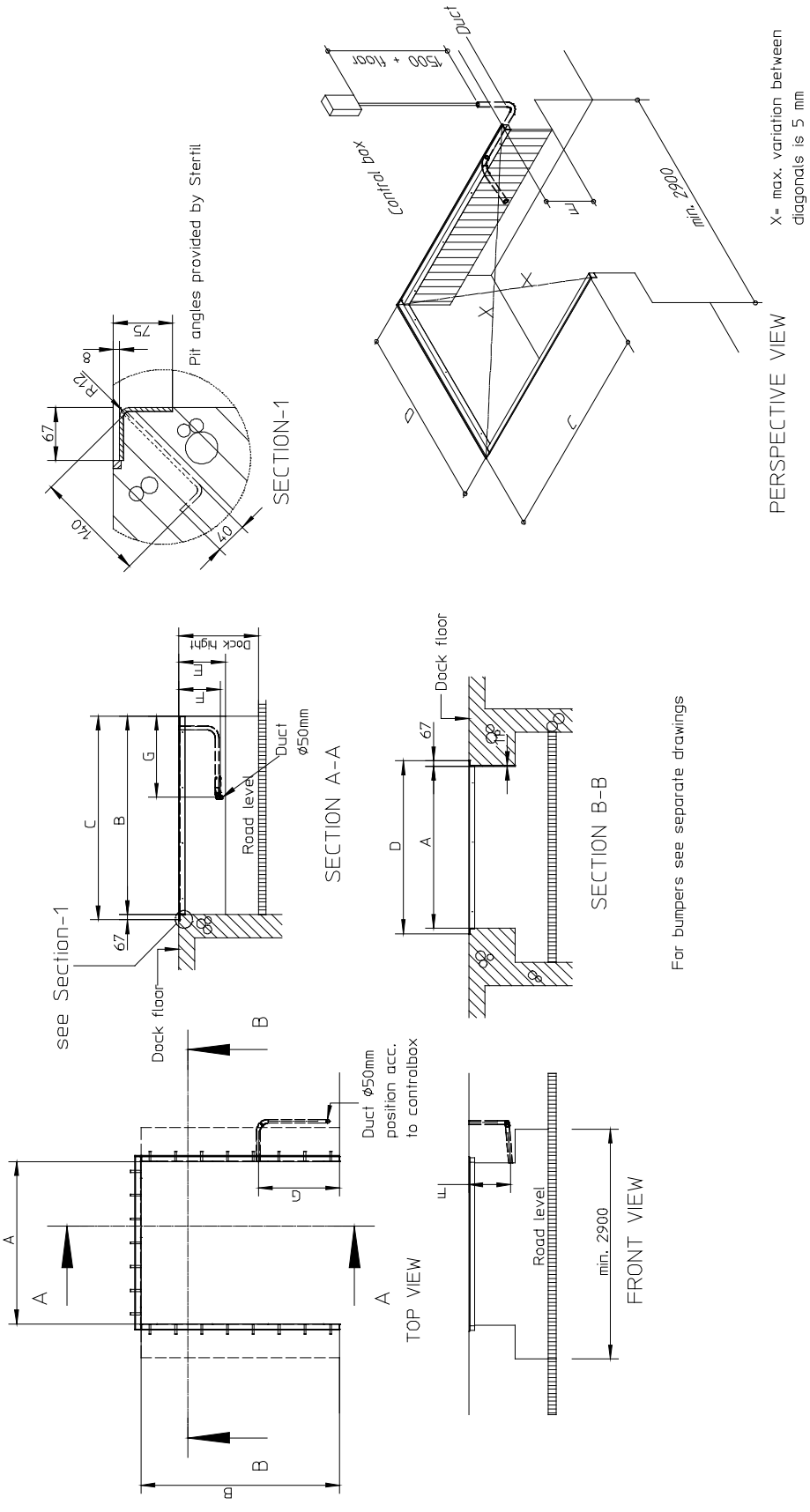


Table Width

	A (mm +4/-0)	D (mm)
SF . . 17	1796	1930
SF . . 18	1876	2010
SF . . 20	2046	2180
SF . . 21	2156	2290
SF . . 22	2296	2430

Table Length

	B (mm +5/-0)	C (mm)	E (mm)	F (mm +5/-5)	G (mm)
SF 20 . .	2000	2067	585	525	1025
SF 22 . .	2195	2262	585	525	1025
SF 25 . .	2500	2567	585	525	1025
SF 28 . .	2805	2872	585	525	1025
SF 30 . .	3000	3067	585	525	1025
SF 35 . .	3500	3567	700	640	875
SF 40 . .	4000	4067	700	640	875
SF 45 . .	4500	4567	700	640	875

Table Curb angle set

	SF . . 17	SF . . 18	SF . . 20	SF . . 21	SF . . 22
SF 20 . .	02319000	06002950	02319015	02319145	02319020
SF 22 . .	06010950	06012950	06014950	06016950	06018950
SF 25 . .	02319040	06022950	02335550	02319155	02319045
SF 28 . .	06030950	06032950	06034950	06036950	06038950
SF 30 . .	02319055	06042950	02340550	02319160	02319060
SF 35 . .	02319070	06052950	02319080	02319165	02319085
SF 40 . .	02319095	06062950	02319105	02319170	02319110
SF 45 . .	02319120	06072950	02319130	02319180	02319135

7.18 Weather seals (option)

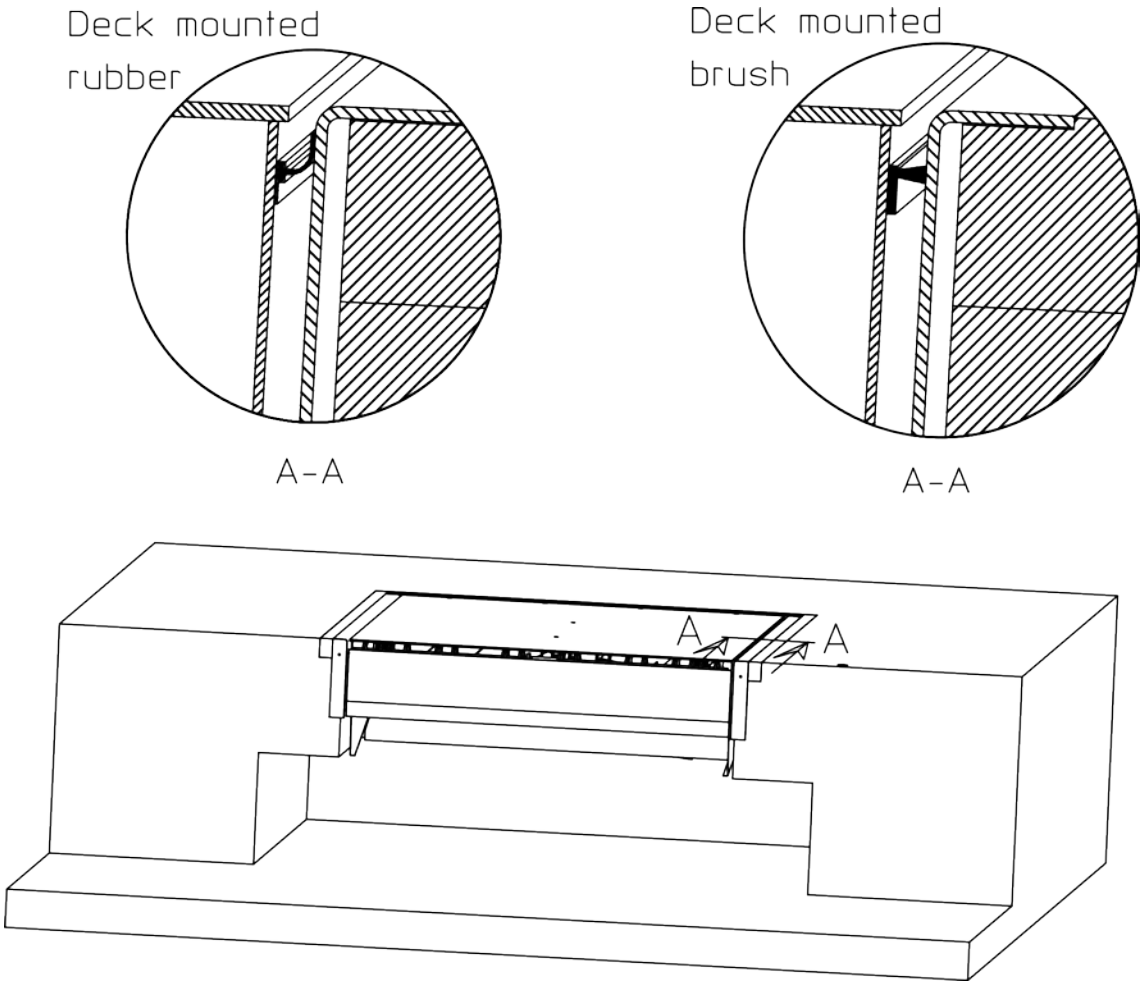


Table Brushes

Type leveller	**Brush Set reference**	**Replacement brush 15mm x 1000mm**	
		Reference	Number required
SF 20 . .	06000920	02219912	4
SF 22 . .	06010920	02219912	5
SF 25 . .	06020920	02219912	5
SF 28 . .	06030920	02219912	6
SF 30 . .	06040920	02219912	6
SF 35 . .	06050920	02219912	7
SF 40 . .	06060920	02219912	8
SF 45 . .	06070920	02219912	9

Table Rubbers

Type leveller	**Rubber Set reference**	**Replacement rubber 32mm**	
		Reference	Number required
SF 20 . .	06000925	66201087	2 x 3m
SF 22 . .	06010925	66201087	2 x 3m
SF 25 . .	06020925	66201087	2 x 3m
SF 28 . .	06030925	66201087	2 x 3m
SF 30 . .	06040925	66201087	2 x 3m
SF 35 . .	06050925	66201087	2 x 4.5m
SF 40 . .	06060925	66201087	2 x 4.5m
SF 45 . .	06070925	66201087	2 x 4.5m

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Thermadoor 640C

User Manual

Foreword

This user manual is for the Stertil Stokvis Thermadoor 640C:

This user manual is intended for authorised and technically competent people (see "Glossary of terms")

This user manual forms part of the technical construction file as intended in the Machine Directive.

Attention is given in this user manual to the safety, operation, cleaning, maintenance and disposal of overhead doors.

You will find in this user manual a number of notes that are shown as follows:

Tip: Suggestions / recommendations of how to carry out certain tasks in an easier manner

Danger: You can injure yourself or others or damage the product

Note: Draws your attention to possible problems

Caution: The product can be damaged

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EC Declaration of Conformity

(in accordance with Annex IIA of the Machine Directive)

Supplier: Stertil UK Ltd
Unit A, Brackmills Industrial Estate
Caswell Road
Northampton
NN4 7PW
Tel: 0870 770 0471

declares that the product:

Stertil Stokvis Thermadoor 640C

where this certificate relates to, is in accordance with the conditions of the Machinery Directions:

(DIRECTIONS 98/37/EG (98/79/EG)
(Replaces DIRECTIONS 89/392/EEG)

and is in accordance with the below mentioned other EEC-directions
LOW VOLTAGE DERECTIVE 73/23/EEG (93/68/EEG)
EMC DIRECTIVE 89/336/EEG (92/31/EEG, 93/68/EEG)

And SP Swedish National Testing and Research Institute has as Notified Body (no. 0402), performed Initial Type – Testing of the products mentioned above, and the report may be used as Support for an EC Declaration of Conformity according to the requirements in the harmonized standard EN 13 241- 1:2003

Initial Type – Testing Report for EC Declaration of Conformity for Industrial Door: 0402 – CPD – 40 70 02

And by the TÜV Nord "Baumuster" tested in accordance with the below mentioned standards:

EN 12604 : 2000 Doors – Mechanical aspects (Requirements)
EN 12605 : 2000 Doors – Mechanical aspects (Test methods)
EN 12453 : 2000 Safety in use of power operated doors (Requirements)
EN 12445 : 2000 Safety in use of power operated doors (Test methods)

TÜV Registered-no. PP – 022 / 2003

Glossary of terms

Authorised person:
An authorised person is someone who has carefully read this manual and is at least 16 years old. Moreover, this person must have sufficient skills to be able to operate an overhead door.

Technically competent person:
A technically competent person is someone who has sufficient technical knowledge to carry out activities on an overhead door. This person is aware of the dangers that can occur.

Door leaf:
A door leaf is the total of horizontally connected panels used to shut off and give access to an area. These panels are made of 2 steel sheets separated by insulation material.

Overhead door:
An overhead door consists of a door leaf that closes off an opening in a building. This door leaf consists of horizontally connected panels.
An overhead door is opened vertically.

Spring bumper:
A spring bumper is a block of rubber that is mounted at the end of the horizontal rails. This spring bumper restrains the overhead door when it is opened to the maximum.

Insulated Doors (Steel - insulated)
These doors are made of sandwich panels. This means that the panels are constructed of two steel sheets. These sheets are separated by insulating (polyurethane) foam. The total thickness of the panels is 40mm. The steel sheets are 0.5 mm thick.

Insulated Doors (Steel - insulated - with a Plastisol finish)
These doors are made of sandwich panels. This means that the panels are constructed of two steel sheets. These sheets are separated by insulating (polyurethane) foam. The total thickness of the panels is 40 mm. The steel sheets are 0.5 mm thick. Furthermore, these panels have an extra Plastisol (a type of plastic) layer that protects the panel.

1. Introduction

1.1 Intended use

The overhead door is intended to close an opening in a building that is intended to provide access to people or vehicles. It is not allowed to use the overhead door for other purposes. Before carrying out work on the overhead door, read this user manual thoroughly. The supplier is not responsible for any damage resulting from incorrect use of the door.

1.2 Unintended use

The following should be strongly advised against:

- Hoisting and/or lifting objects, animals and/or people using the door mechanism
- Clamping or pressing using the door mechanism
- Changing the door or parts of it
- Increasing or reducing the speed of movement of electrically operated doors

1.3 Operating conditions

The door should not be used in temperatures lower than -30°C and higher than +60°C.
The door can be safely operated up to a wind speed of 32 m/s (10 Beaufort).
The door has a water tightness rating of IP65 (this means that the door is splash proof).

Tip: Lightly grease the rubbers with vaseline to prevent the door freezing to the frame in freezing conditions

Tip: Grease the nylon ball bearing roller, hinges and springs to reduce the noise of the door

Danger: Corrosive and aggressive environments: acid and/or caustic conditions can have a major influence on safe operation. This should be taken into account very seriously.

1.4 Operating principle

To move and at the same time counter-balance the weight of the door, a torsion-spring counter-balance system is fitted. There are various types of drive for the overhead doors. These are:

- Manual operation
- Manually operated using a chain hoist
- Electric drive

1.4.1 Manual operation

An overhead door can be operated using a handgrip or a rope. If the door is moved upwards using a handgrip or a rope, the tension in the hoisting cables is reduced. The overhead shaft, which is fitted with a torsion spring, rolls up and the door moves upwards

(at the extreme limit the door hits the spring bumpers). If the door is moved downwards using a handgrip or a rope the door is closed.

1.4.2 Manually operated using a chain hoist

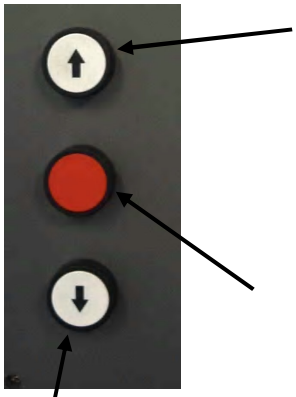
An overhead door can be operated using a chain hoist. By pulling the chain, that is connected through an assembly of gears to the shaft, the door moves upwards or downwards. If the chain is no longer pulled, the door will stop moving. This applies to both the upward and downward movement. The chain has to be held in the hand when opening or closing the door, if you do not hold the chain the cables can detach from the cable drums.

1.4.3 Electric drive

An operating unit is used to start an electric motor. The motor drives the overhead shaft. This rolls up or unrolls the hoisting cables, which raises or lowers the door leaf.

1.4.4 Operating unit

The operating unit (a box with push buttons) is only used if the door is electrically operated.
Electrically operated doors are supplied as standard with the operating unit shown below. The customer can also order another type of operating unit



Meaning of the buttons

Up: This button should be pressed once to open the door
The door then moves automatically upwards until it is completely open.
If the door is fitted with a dead man's switch, the button should be kept pressed in to open the door.
The door stops moving when the button is released.

Stop: The door stops immediately if this button is pressed. This applies if the door is moving either upwards or downwards. If a dead man's switch is fitted, this button is not used.

Down: This button should be pressed once to close the door. The door then moves automatically downwards until it is completely closed. If the door is fitted with a dead man's switch, the button should be kept pressed in to close the door. The door stops moving if the button is released.

Danger: The operating unit may only be opened by a technically competent person.

2. Safety

2.1 Safety risks

Danger: There is a risk of crushing and pinching when the door is moving.

Danger: There is electrical power to the operating unit, which means that there is a danger of electrocution. Therefore only technically competent people are allowed to work on the electrical installation.

Danger: Switch off the mains power when work is carried out on the door control system.

Danger: The door may only be operated by authorised persons.
This is because of the parts (torsion-spring counter-balance system) that are subjected to high forces.

Danger: The door may only be operated if there is no one present in the danger zone (approximately 1 meter from the door).

Danger: If the door operates in a different way to that described in this user manual, do not use the door and contact the supplier as quickly as possible.

Danger: If the operation of the door is disrupted by defective parts, poorly readable (or missing) pictograms or a bad state of repair, contact the supplier as quickly as possible.

Danger: Ensure that during operation the door does not become trapped between the guide rollers and the rail. Always use the handgrip/ foot pedal, rope or the chain.

Danger: Installation, disposal, maintenance and repairs may only be carried out by technically competent persons.

Danger: Corrosive and aggressive environments: acid and/or caustic conditions can have a major influence on safe operation. This should be seriously taken into account.

Caution: The door should be fully open if a vehicle is to pass through it.

2.2 Safety provisions

Every manually operated overhead door that is installed must be fitted with a certified *spring break safety device*. This spring break safety device ensures that the door is stopped from moving if the torsion spring breaks. For electrically operated overhead doors the spring break safety device is integrated in the motor. If a motor is fitted with a manual release, an extra spring break safety device must be fitted.

Every overhead door is fitted with two steel cables that are wound onto drums. These cables must be wound around the drums at least twice for safety reasons (safety windings). This protects the cable attachment point to the drum from wear.

Every electrically operated door must also be fitted with a *slack cable safety device*. This ensures that if the cables go slack, for whatever reason, the motor is switched off. This prevents uncontrolled movement of the door.

Every electrically operated door must also be fitted with a *safety edge*. This safety edge consists of a contact strip on the bottom of the door that sends a signal to the control unit when pressed. The control unit sends a signal to the motor that causes it to immediately switch off. The door can be moved again by using the operating buttons (up and down buttons). A door fitted with a safety edge must have an emergency stop fitted to the control unit. If the overhead door is operated by a dead man's switch, a safety edge is unnecessary and therefore not compulsory.

If a pass door is fitted in an electrically operated door, a *contact switch* must be fitted to this pass door. This switch ensures that the door cannot be electrically opened if the pass door is open.

On the request of the customer, the following safety provisions can be fitted to a door:

- Cable break safety device
- Safety glass
- Laminated glass
- Pass-through safety device
- Sliding bolt microswitch
- Motor (including emergency stop switch)

Cable break safety device
The *cable break safety device* is fitted to a door to ensure that if the cable breaks, the door does not drop. If a cable breaks, then a mechanism ensures that the tilting mechanism clamps to the rails. This prevents the door falling more than 300 mm.

Safety glass
An overhead door that is fitted with safety glass instead of another type of glass prevents injury if the glass breaks. The glass breaks into small pieces so that injuries from falling splinters are minimal.

Laminated glass
An overhead door that is fitted with laminated glass instead of another type of glass prevents injury if the glass breaks. The broken glass remains attached to the plastic laminate.

Pass-through safety device
An overhead door that is electrically operated can be fitted with a pass-through safety device. This pass-through safety device consists of a box that emits an infra red beam. If the door is moving and this beam is interrupted, the door immediately stops moving. If the beam is interrupted, the door cannot be set in motion.

Sliding bolt (fitted with a contact switch)
If an overhead door is electrically operated and is fitted with a sliding bolt, a contact switch is fitted to the bolt. This switch ensures that the door cannot be electrically opened if the door is bolted.

Motor
An overhead door that is electrically operated also has the motor itself as a safety device. If a spring breaks, the motor ensures that the door does not make any uncontrolled movement. When operating with an emergency stop function, the door is stopped because the motor is switched off. In this case the motor serves as a safety device.

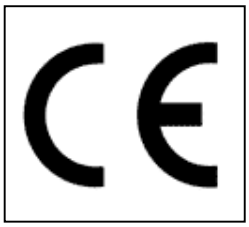
2.3 Safety measures

Bear in mind the following safety measures:

- ✓ Before carrying out work on the overhead door, read this user manual thoroughly. The supplier is not responsible for any damage resulting from incorrect use of the door.
- ✓ It is forbidden to remove guards, safety devices, pictograms and marks or to amend the construction.
- ✓ Repairs and maintenance may only be carried out by technically competent people, because the counter-balance system with the springs is subject to high forces.
- ✓ The owner of the door remains responsible for its use, also when the door is used by a third party, unless agreed otherwise.
- ✓ The door should be made inoperable if it becomes damaged and/or defective. The door may only be brought into use again once the damage and/or defect have/has been corrected.
- ✓ The door may only be operated by an authorised person.

3. Explanation of symbols

The following symbols/pictograms are displayed on the door:

Symbol/pictogram	Position	Description
 Danger of crushing	On the inside of the bottom panel	When shutting the door, people can be crushed between the door and the floor
 Danger of pinching	On the overhead door and the rails on both sides at eye height.	Danger of pinching by the movement of the guide rollers in the rails.
 CE marking	On the type plate.	Declaration of conformity. This indicates that the door satisfies the requirements specified by the machine directive.

4. Life and faults

The parts of the overhead door are designed for 15,000 up and down movements. The life of the door, if used normally is ± 10 years.

Faults:

Fault	Possible cause	Measure to take
The door drops or rises slightly after the door is stopped.	Spring tension is incorrect	Consult the supplier
The safety edge starts operating in warm weather.	The pressure is raised in the bottom rubber	Consult the supplier
The door makes a lot of noise when moving up and down.	The guide rollers are running dry	Grease the guide rollers. (see 5.1)
The door does not react when the buttons are pressed.	Sliding bolt engaged. Problem in the electrical supply	Release bolt. Switch off all equipment that uses electricity and consult the supplier
The door stops moving immediately after it has been started	Fault in the safety edge or the slack cable safety device	Consult the supplier
The door hangs at an angle	The adjustable clutch or the cable drum has rotated	Consult the supplier

5. Inspection, maintenance and disposal

5.1 General

An overhead door should be maintained and checked regularly to ensure its safe operation and use. A record of the maintenance for each item should be held on site. This is described in the EN-norms and under the Provision and Use of Work Equipment Regulations 1998.

GENERAL:

1 Torsion springs, brackets and other components that are attached to the springs and cables, are under extreme tension. If not handled properly, injuries or damage can occur!
So, these components must only be worked on by qualified overhead door Technicians!

2 Broken or worn components should only be replaced by qualified overhead door Technicians.

3 When checking the door, always switch off the electricity supply. Ensure that it is cannot be switched on without your knowledge.

REGULAR MAINTENANCE:

After installation:

1.	Grease running part of the tracks	Technician
2.	Grease the bearings of the rollers	Technician
3.	Grease the shafts of the rollers	Technician
4.	Grease the bearings of the shaft	Technician
5.	Grease the hinge pins	Technician
6.	Grease the lock	Technician
7.	Protect the panels with car wax	USER
8.	Grease the rubbers lightly with Vaseline	USER

Every 3 months:

1.	Complete visual inspection	Technician
2.	Check balancing system and adjust if needed	Technician
3.	Check side seals for damage or wear	Technician
4.	Check top seal for damage or wear	Technician
5.	Check bottom seal for damage or wear	Technician
6.	Grease all the points mentioned above	Technician
7.	Clean the panels	USER
8.	Clean the windows (only wash with water, do not use a cloth)	USER
9.	Remove dirt and rubbish from in, on or around the door	USER

Every 6 months:

1.	Check or test the attachment of the springs to the fittings	Technician
2.	Check the balance of the door and adjust if needed	Technician
3.	Check the cables for damage or play	Technician
4.	Check the cable connection points on drums and bottom bracket	Technician
5.	Check the roller for wear and clearance	Technician
6.	Check the hinges for breaks or wear	Technician
7.	Check the panels for damage, wear or rust	Technician
8.	Check the spring break device following instructions in manual	Technician
9.	Check the manual operation of the door	Technician
10.	Check cable pulleys for wear	Technician
11.	Check panel sealing for wear	Technician
12.	Check functioning of the cable break device	Technician

13. Check position of cable break device hinge pin	Technician
14. Check bolt and screw connections of spring break device	Technician
15. Check connections of the pawl wheel	Technician
16. Check side seals for damage or wear	Technician
17. Check bottom seal for damage or wear	Technician
18. Check top seal for damage or wear	Technician
19. Check functioning of cable tension set	Technician
20. Grease the springs	Technician
21. Grease bearings of rollers	Technician
22. Grease running parts of the tracks	Technician
23. Grease the shaft bearings	Technician

Every 12 months:

1. Grease all the points mentioned above	Technician
2. Check or test the attachment of the springs to the fittings	Technician
3. Check the balance of the door and adjust if needed	Technician
4. Check the cables for damage or wear	Technician
5. Check the cable connection points on drums and bottom bracket	Technician
6. Check the roller for wear and clearance	Technician
7. Check the hinges for breaks or wear	Technician
8. Check the panels for damage, wear or rust	Technician
9. Check the spring break device following instructions in manual	Technician
10. Check the manual operation of the door	Technician
11. Check side seals for damage or wear	Technician
12. Check top seal for damage or wear	Technician
13. Check bottom seal for damage or wear	Technician
14. Check the shaft for wear or damage	Technician
15. Check the bottom bracket for wear or damage	Technician
16. Check the connection of the drum to the shaft (keys!)	Technician
17. Check and re-tighten the bolt of the coupling	Technician
18. Check the connections of the track system	Technician
19. Check the attachment of the door to the lintel and ceiling	Technician
20. Grease the springs	Technician
21. Check bolt and screw connections of spring break device	Technician
22. Check connections of the pawl wheel	Technician
23. Check the functioning of the cable tension set	Technician
24. Grease springs	Technician
25. Grease bearings of rollers	Technician
26. Grease running parts of the tracks	Technician
27. Grease the bearings of the shafts	Technician
28. Grease the hinge pins	Technician
29. Grease the lock	Technician
30. Grease the shafts of the rollers A0	Technician

After spring break:

- ✓ Replace springs and spring break device
- ✓ Check the shaft for damage and replace if necessary

NB! Do not touch any connection or part of the door after a spring break. Wait until qualified technicians arrive at the scene!

After cable break:

- ✓ Replace cable together with the connections
- ✓ Replace cable break device
- ✓ Check tracks and service or replace

NB! Do not touch any connection or part of the door after a cable break. Wait until qualified technicians arrive at the scene!

For greasing use : PTFE or SAE20

For cleaning use : Soft soap with water. Do not use aggressive soap or a cloth.

 **Note:**

- ✓ The rubbers of the door may only be greased with vaseline if it is certain that the electrical power to the door has been switched off and has been secured against being switched on.

- ✓ The guide rollers may only be greased with ball bearing grease if it is certain that the electrical power to the door has been switched off and has been secured against being switched on.

5.2 Spare parts

Parts can be ordered from the supplier who supplied the overhead door. It is of great importance that only original replacement parts are used and that they are fitted by technically competent people.

5.3 Disposal

When the door is at the end of its working life and it is decided that it should be replaced or removed, this should be carried out by a technically competent person.

Metal and plastic should be sent separately to a waste processing company.

The motor can contains oil. This falls under Small-scale Chemical Waste.

 **Note:** Consult the supplier in every case

Installatie instructies dockshelters WE
Installationsanleitung Torabdichtungen WE
Installation instructions dockshelters WE
Instruction d'installation sas d'étanchéité WE

STERTIL B.V.
WESTKERN 3
9288 CA KOOTSTERTILLE, NL

15.580.001 A

INSTALLATIE-INSTRUCTIES

voor de

Stertil dockshelter

type WE 574

- Wijzigingen voorbehouden -

INSTALLATIONSANLEITUNG

für die

Stertil Torabdichtung

Model WE 574

- Änderungen vorbehalten -

INSTALLATION INSTRUCTIONS

of the

Stertil dockshelter

model WE 574

- Modifications reserved -

INSTRUCTION D' INSTALLATION

du

sas d'étanchéité **Stertil**

modèle WE 574

- Sous réserve de modifications -

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1 ALGEMEEN

Fabrikant: STERTIL B.V.
Westkern 3
9288 CA Kootstertille NL

Product: Dockshelter

Type: WE 574

1 ALLGEMEIN

Hersteller: STERTIL B.V.
Westkern 3
9288 CA Kootstertille NL

Produkt: Torabdichtung

Model: WE 574

1 GENERAL

Manufacturer: STERTIL BV
Westkern 3
9288 CA Kootstertille NL

Product: Dockshelter

Model: WE 574

1 GÉNÉRAL

Fabricant: Stertil B.V.
Westkern 3
NL - 9288 CA Kootstertille

Produit: Sas d'étanchéité

Type: WE 574

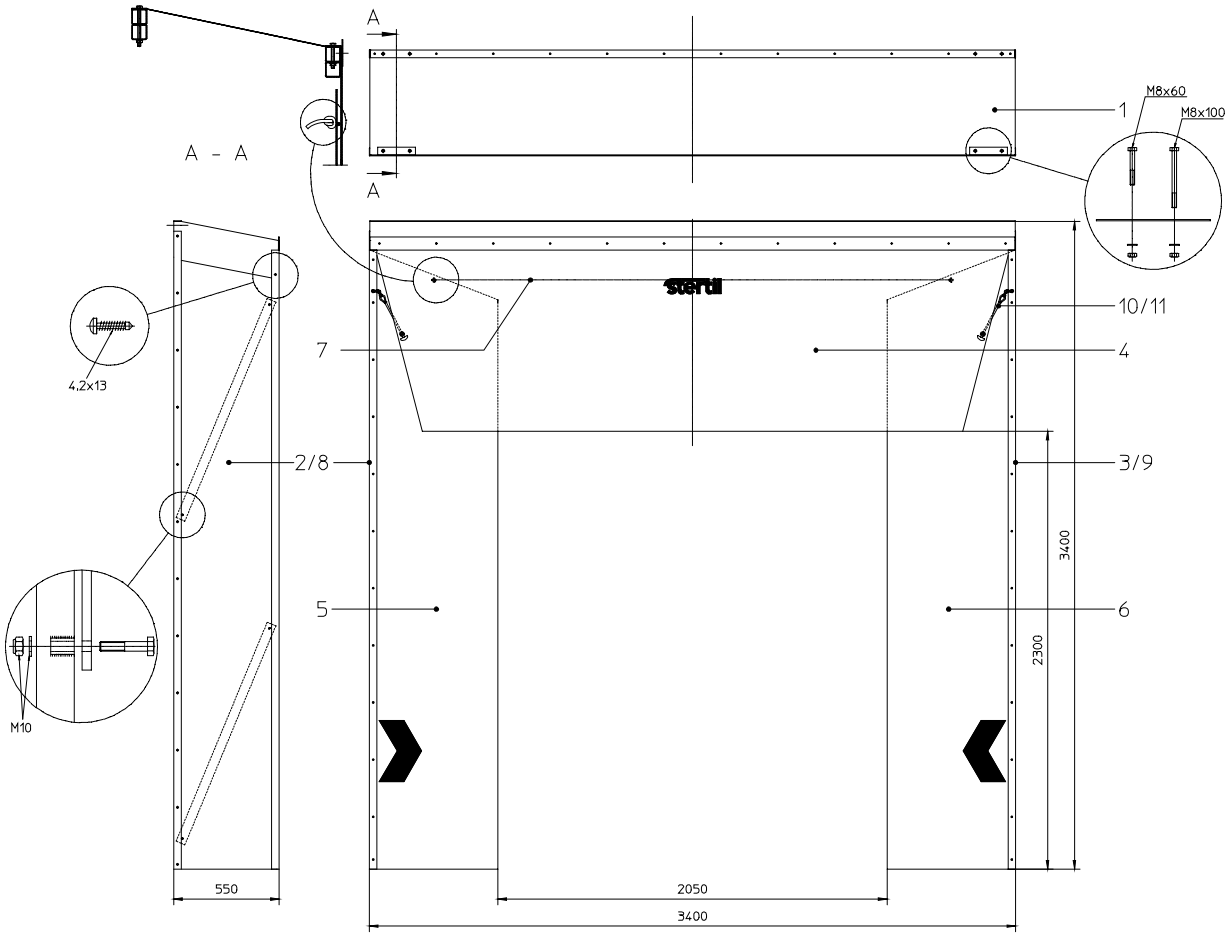


Fig. 1

2 INSTALLATIE

De WE dockshelter bestaat uit de volgende onderdelen:

1. Bovenframe
2. Zijframe links
3. Zijframe rechts
4. Bovengordijn
5. Zijgordijn links
6. Zijgordijn rechts
7. Spankabel
8. Fjongs
   Bevestigingsmateriaal

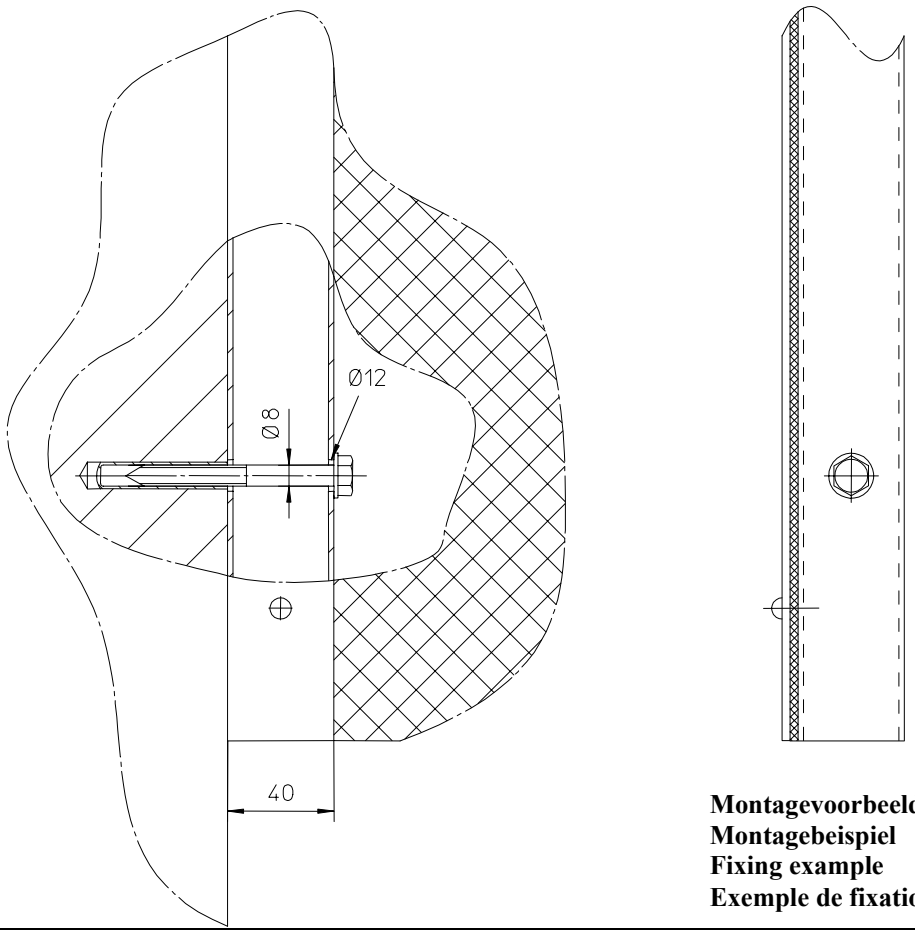
- De bouwkundig te verzorgen ondergrond dient vlak te zijn en bestand tegen een druk/eigengewicht van 350 kg
- Opklaparmen aan zijpanelen monteren met bouten, sluitringen en borgmoeren M10 (Vast en dan 1/8 slag los)
- Zijpanelen aan bovenpanelen monteren. Let op de lange en korte bouten en de aluminium strippen aan de voorzijde van het bovenframe
- Spankabel zonder voorspanning monteren d.m.v. knoop
- Geheel aan gevel bevestigen (7 gaten, zie Fig. 3) met behulp van heftruck of autolaadkraan (bevestigingsmateriaal niet meegeleverd)
- Bovendoek straktrekken en aan zijpanelen bevestigen, onder de aluminium profielen. Extra schroef in de hoekprofielen draaien. Fjongs aanbrengen
- Naad tussen bovenpaneel en gevel afkitten
- Alle boutverbindingen natrekken

2 INSTALLATION

Die WE Torabdichtung besteht aus folgenden Teilen:

1. Obenrahmen
2. Seitenrahmen links
3. Seitenrahmen rechts
4. Kopfplane
5. Seitenplane links
6. Seitenplane rechts
7. Spannseil
8. Fjongs
   Befestigungsmaterial

- Die Bauseitige Montagefläche muß flach sein und einen Druck/Eigengewicht von 350 kg ertragen können.
- Scharnierarme an Seitenrahmen montieren mit M10 Schrauben, Scheiben und Sicherungsmüttern (Fest und dann 1/8 Drehung los)
- Seitenrahmen an Obenrahmen montieren. Achte auf die lange und kurze Schrauben und die aluminium Streifen an der Vorderseite des Obenrahmens
- Spannseil Vorspannunglos montieren mit einem Knoten
- Das Ganze an der Fassade montieren (7 Löcher, siehe Fig. 3) mit Hilfe eines Gabelstaplers oder eines Autoladekrans (Befestigungsmaterial nicht mitgeliefert)
- Obere Rahmenverkleidung straff ziehen und festmachen am Seitenrahmen, unter den aluminium Profilen. Extra Schraube in den Eckprofilen drehen. Fjongs anbringen
- Spalt zwischen Obenrahmen und Fassade dichten mit Kitt
- Alle Schraubverbindungen überprüfen



Montagevoorbeeld
Montagebeispiel
Fixing example
Exemple de fixation

Fig. 2

2 INSTALLATION

The WE dockshelter consists of the following parts:

1. Head frame
2. Side frame left
3. Side frame right
4. Head curtain
5. Side curtain left
6. Side curtain right
7. Stretch cable
8. Fjongs

Fixing material

- The fixing area, provided by the customer, must be flush and able to support a dead weight/pressure of 350 kg
- Mount Hinge arms tot Side frames with M10 bolts, washers and self locking nuts (Tighten and then loosen1/8 turn)
- Mount the side frames to the head frame. Mind the long and the short bolts and the aluminium strips on the front side of the head frame
- Mount the stretch cable without pretension using a knot
- Fix the entirety to the face (7 holes, see Fig. 3) with help of a forklift or a truck-mounted crane (fixing material not supplied)
- Stretch the head cloth and fix it to the side frames, under the aluminium profiles. Put an extra screw in the angle profiles and fit the fjongs
- Seal the chink between head frame and face with mastic
- Check all bolt connections

2 L'INSTALLATION

Le sas d'étanchéité WE est constitué des éléments suivants:

1. Cadre supérieur
2. Cadre latéral gauche
3. Cadre latéral droit
4. Rideau supérieur
5. Rideau gauche
6. Rideau droit
7. Câble élastique de tension
8. Fjongs

Matériel de fixation

- La zone de fixation, prévue par le client, doit être lisse et capable de supporter le poids/pression de 350 kg
- Monter les bras pivotant sur les cadres latéraux avec les boulons, les rondelles et les écrous auto-bloquant M10 (Serrer et ensuite dévisser de 1/8 de tour)
- Monter les cadres latéraux sur le cadre supérieur. Faire attention de bien utiliser les bons boulons (longs et courts) et les bandes d'aluminium en face du cadre supérieur
- Monter le câble sans pré-tension avec un nœud
- Fixer l'ensemble à la façade (7 trous, voir Fig. 3) à l'aide de un chariot élévateur ou une grue (le matériel de fixation n'est pas fourni)
- Tendre le vinyle supérieur et le fixer aux cadres latéraux sous les profils en aluminium. Placer une vis supplémentaire dans les cornières et poser les fjongs
- Mastiquer l'espace entre le cadre supérieur et la façade
- Contrôler toutes les fixations

3 BOORSCHEMA
BOHRSCHEMA

DRILL SCHEDULE
PLAN DES TROUS DE FIXATION

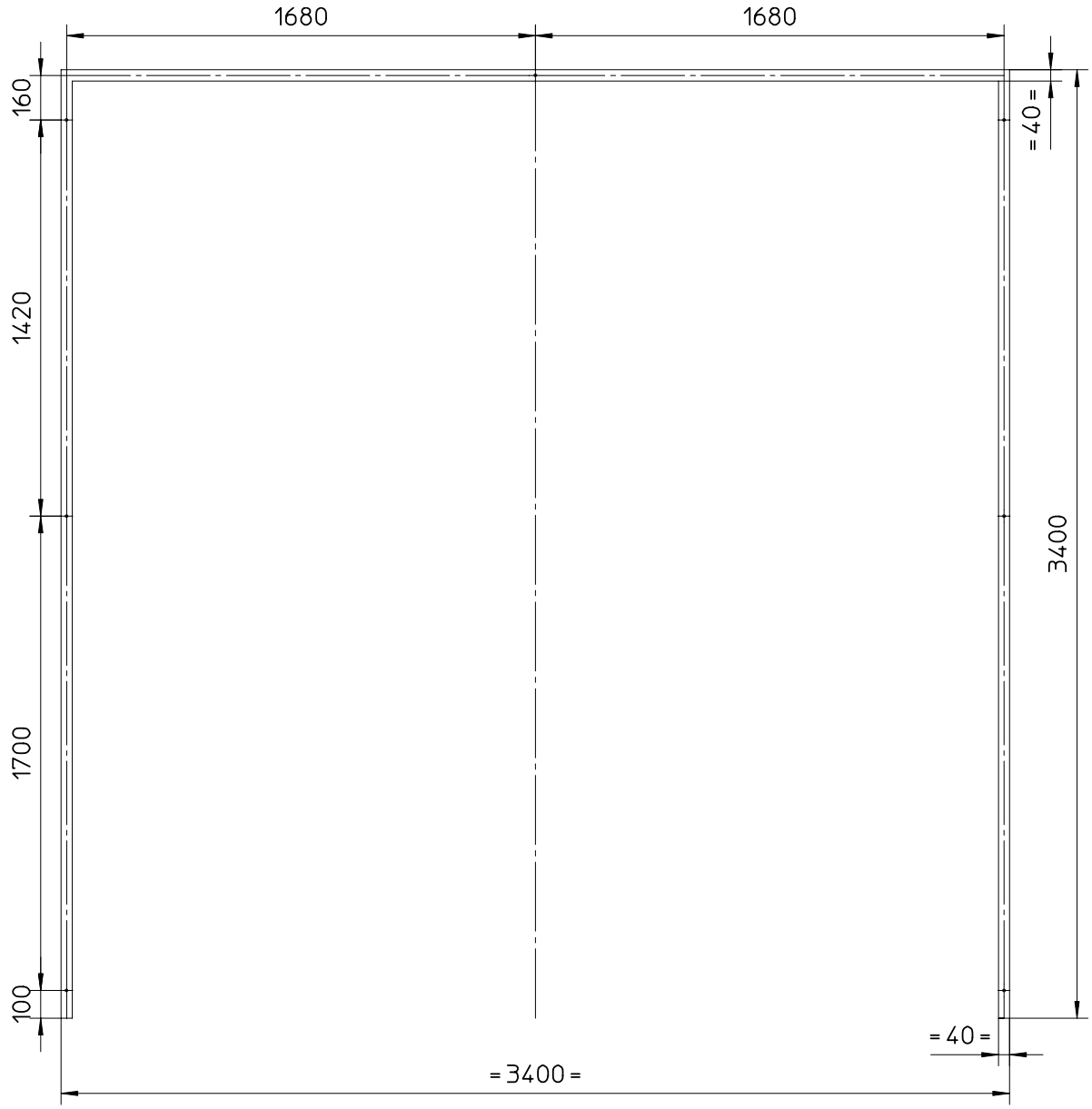


Fig. 3

Montagevlak
Montagefläche
Fixing area
Zone de fixation

4 ONDERDELENLIJST / VERZEICHNIS DER EINZELTEILE / PARTS LIST / LISTE DES PIÈCES DÉTACHÉES

INDEX	REFERENCE	DESCRIPTION
1	15-580-020	Head frame assembly
2	15-580-040	Side frame assembly left
3	15-580-060	Side frame assembly right
4	15-580-180	Head curtain WE 574
5	15-580-182	Side curtain left WE 574
6	15-580-183	Side curtain right WE 574
7	01-580-184	Stretch cable 8 mm (length 2850 mm)
8	15-580-081	Aluminium angle left
9	15580-086	Aluminium angle right
10	00-925-440	Fjong (Wind strap)
11	15-425-150	Fjong chain
		SUPPLIED FIXATION MATERIAL
	65-002-373	Bolt M8x100 8.8 DIN931 GV (6x)
	65-002-381	Bolt M8x60 8.8 DIN931 GV (2x)
	65-050-132	Nut M8 8 DIN934 GV (8x)
	65-055-018	Washer M8 DIN125A GV (8x)
	65-051-034	Self locking nut M10 8 DIN985 GV(8x)
	65-055-019	Washer M10 DIN125A GV (8x)
	65-002-411	Bolt M10x50 8.8 DIN 931 GV (8x)
	15-580-085	Strip head frame (2x)
	65-045-009	Self drilling screw 4,2x13 DIN7504N RVS (2x)

DOCKPRODUCTS

Manufactured by:

STERTIL B.V.
P.O. Box 23, 9288 ZG Kootstertille (Holland)
Tel. 31(0)512334444. Telefax 31(0)512332099
E-mail: info@stertil.nl Website: www.stertil.nl

Installatie instructies shelters WS, WL, WF
Installationsanleitung Torabdichtungen WS, WL, WF
Installation instructions dockshelters WS, WL, WF
Instruction d'installation sas d'étanchéité WS, WL, WF

STERTIL B.V.
WESTKERN 3
9288 CA KOOTSTERTILLE NL.

15.500.005 G

INSTALLATIE-INSTRUCTIES

voor de

STERTIL dockshelters

Typen WS, WL, WF

- Wijzigingen voorbehouden -

INSTALLATIONSANLEITUNG

für die

Torabdichtungen von **STERTIL**

Modellen WS, WL, WF

- Änderungen vorbehalten -

INSTALLATION INSTRUCTIONS

of the

STERTIL dockshelters

models WS, WL, WF

- Modifications reserved -

INSTRUCTION A L'INSTALLATION

du

sas d'étanchéité **STERTIL**

modèle WS, WL, WF

- Sous réserve de modifications -

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1. ALGEMEEN

Fabrikant: STERTIL B.V.
Westkern 3
9288 CA Kootstertille NL

Produkt: Dockshelter

Typen: WS, WL, WF

Doeksoort: 544 - Vinyl
554 - Powerflex 1000
574 - PVC 3 mm

1. ALLGEMEIN

Hersteller: STERTIL B.V.
Westkern 3
9288 CA Kootstertille NL

Produkt: Torabdichtung

Typen: WS, WL, WF

Tuch: 544 - Vinyl
554 - Powerflex 1000
574 - PVC 3 mm

1. GENERAL

Manufacturer: STERTIL BV
Westkern 3
9288 CA Kootstertille NL

Product: Dockshelter

Models: WS, WL, WF

Curtain: 544 - Vinyl
554 - Powerflex 1000
574 - PVC 3 mm

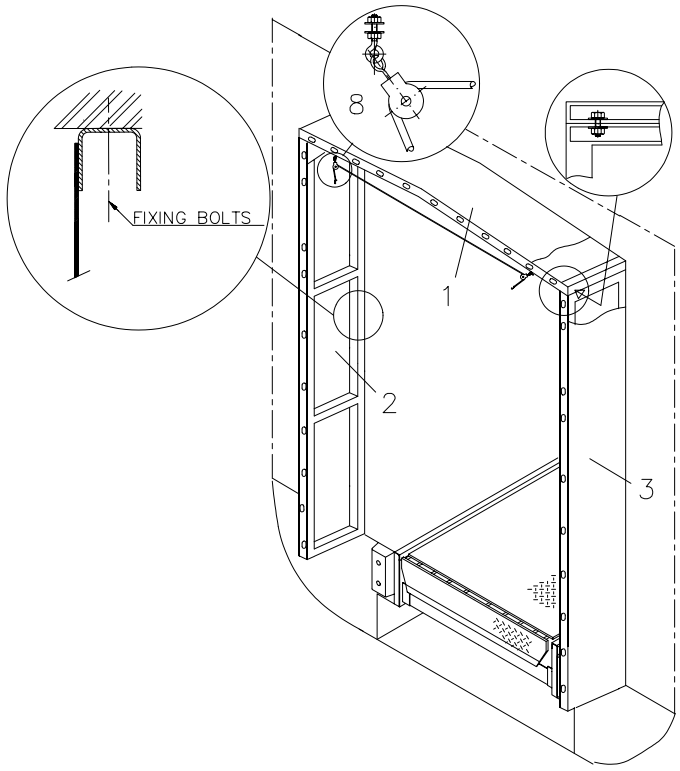
1. GENERALITES

Fabricant: Stertil B.V.
Westkern 3
NL - 9288 CA Kootstertille

Produit: Sas d'étanchéité

Types: WS, WL, WF

Rideau: 544 - Réine
554 - Powerflex 1000
574 - PVC 3 mm



2 INSTALLATIE WS

De WS dockshelter bestaat uit de volgende onderdelen:
1) Bovenframe
2) Zijframe (links)
3) Zijframe (rechts)
4) Zijgordijn (links)
5) Zijgordijn (rechts)
6) Bovengordijn
7) Fjongs (2x)
8) Kabelsamenstelling
9) Aluminium hoeklijnen (3x)
   Bevestigingsmateriaal

- De bouwkundig te verzorgen montageondergrond dient vlak te zijn en bestand tegen druk/eigengewicht van 350 kg.
- Bevestig het linker en rechter zijframe aan de gevel.
- Plaats het bovenframe op de zijframes en bevestig deze onderling en aan de gevel.
- Monteer de kabelsamenstelling aan het bovenframe.
- Ter voorkoming van het wegtrekken van de sheltergordijnen dient er op de aangegeven plaatsen (A) extra popnagels te worden aangebracht (niet voor 3 mm PVC Type 574), voordat de aluminium hoeklijnen en standaard bevestigingsbouten worden aangebracht (zie Fig. D).
- Monteer de zij- en bovengordijnen met behulp van de aluminium hoeklijnen.
- Bevestig de kabelsamenstelling aan de zijgordijnen.
- Monteer de fjongs.
- De opening tussen bovenframe en gevel afkitten.

Algemeen: De gordijnen moeten strakgetrokken worden door de uiteinden van de gordijnen onder trekkracht te monteren.

Voor bevestiging aan gevel zie pagina 6.

Per frame minimaal 3 bevestigingsbouten aanbrengen.

2. INSTALLATION WS

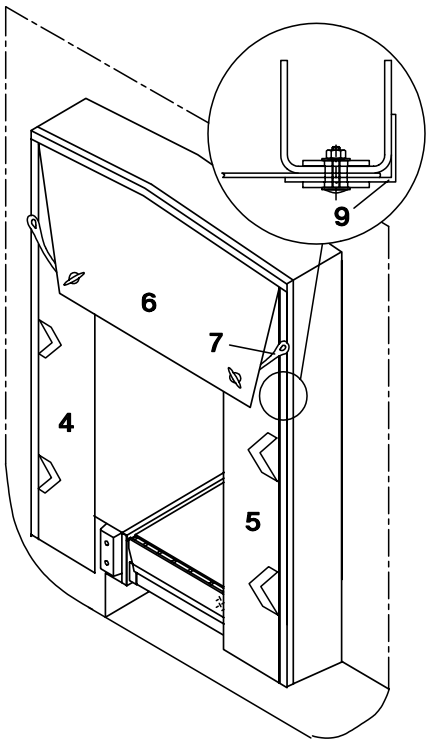
Die WS Torabdichtung muss aus folgenden Teilen bestehen:
1) Obenrahmen
2) Seitenrahmen (Links)
3) Seitenrahmen (Rechts)
4) Seitenvorhang (Links)
5) Seitenvorhang (Rechts)
6) Obenvorhang
7) Fjongs (2x)
8) Kabelzusammenstellung
9) Aluminium Winkelprofile (3x)
   Befestigungsmaterial

- Die Bauseitig zu schaffen Montagefläche muss flach sein und dem Druck/Eigengewicht von 350 kg. wiederstehen können.
- Befestigen Sie die Linker- und Rechter Seitenrahmen an der Mauer.
- Setzen Sie den Oberrahmen auf die Seitenrahmen, und befestigen Sie gegenseitig sowie an der Mauer.
- Montieren Sie die Kabelzusammenstellung an dem Obenrahmen.
- Um zu verhüten dass die Sheltervorhänge aufgezogen werden, sind an den angegeben Stellen (A) zusätzliche Hohlniete anzubringen (nicht für 3 mm PVC Typ 574), bevor die Eckleisten aus Aluminium und die Standardbefestigungsbolzen angebracht werden (Siehe Abb. D).
- Befestigen Sie die Seitenvorhänge und der Obenvorhang mit Hilfe der Aluminium Winkelprofile.
- Befestigen Sie die Kabelzusammenstellung an den Seitenvorhänge.
- Montieren Sie den Fjongs.
- Die Öffnung zwischen dem Oberrahmen und der Front verschließen.

Allgemein: Die Vorhänge müssen Straffgezogen werden durch die Ende der Vorhänge mit Zugkraft zu montieren.

Für die Befestigung an der Mauer siehe Seite 6.

Pro Rahmen mindestens 3 Befestigungsbolzen verwenden.



2 INSTALLATION WS

The WS dockshelter consists of the following parts:

1) Headframe
2) Sideframe (left)
3) Sideframe (right)
4) Sidecurtain (left)
5) Sidecurtain (right)
6) Headcurtain
7) Fjongs (2x)
8) Cable assembly
9) Aluminium angles (3x)
   Fixing material

- The fixing area, which has to be provided by the customer, must be flush and able to support the dockshelterweight/ pressure of approximately 350 kg.
- Mount the left and right sideframe to the fixing area.
- Place the upper frame on the side frames; fasten frames to each other and to the wall.
- Mount the headframe to the fixing area. Fix the cable assembly under the headrame.
- To prevent the shelter curtains from being drawn away extra pop rivets are to be placed at the locations indicated (A) (not for 3 mm PVC Type 574) before the aluminium angle strips and the standard fastening bolts are applied (See Fig. D).
- Mount the sidecurtains and the headcurtain to the frame by using aluminium angles.
- Mount the fjongs.
- The opening between upper frame and wall must be sealed off by means of putty.

General: Curtains should be stretched when mounted by first fastening the ends of the curtains under tension.

For fastening to wall see page 6.

Use at least 3 fastening bolts per frame.

2 L'INSTALLATION WS

Lors de livraison d'un sas complet, les pièces ci-dessous doivent être présentes:

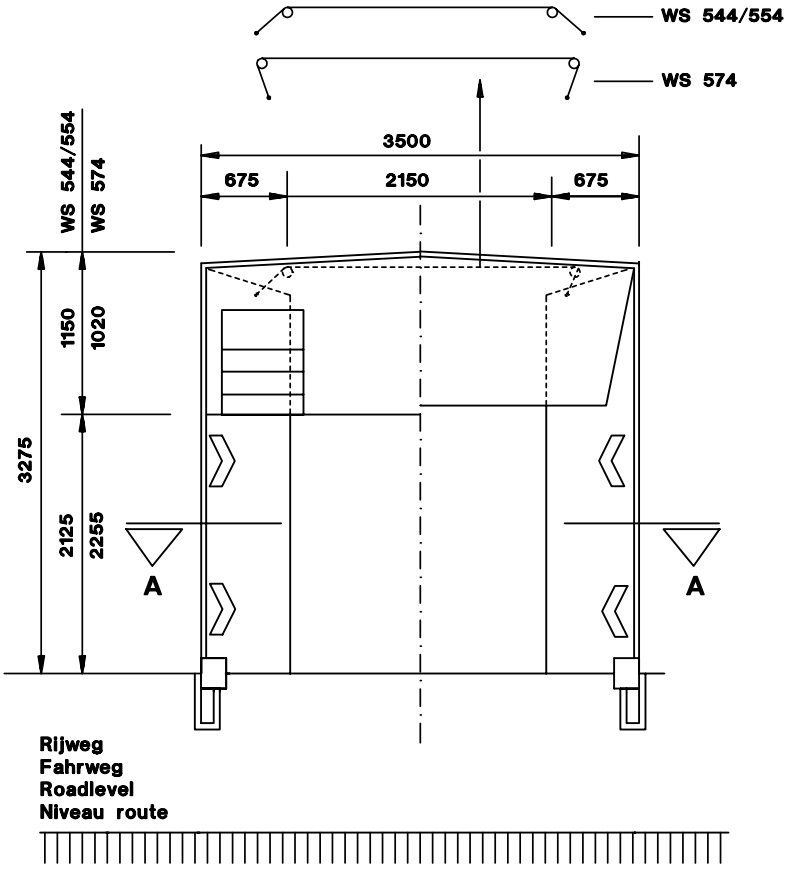
1) Elément supérieur
2) Elément côté gauche
3) Elément côté droite
4) Rideau côté gauche
5) Rideau côté droite
6) Rideau supérieur
7) Fjongs (2x) (courroies de retenue)
8) Assemblage câble
9) Diagonales en aluminium (3x)
   Matériel de fixation

- La zone de fixation prévue par le client doit être lisse et capable de supporter le poids et la pression du sas à rideaux d'approximativement 350 kg.
- Monter les éléments côté gauche et droit sur la zone de fixation.
- Posez le châssis supérieur sur les châssis latéraux et fixez-les uns aux autres et à la façade.
- Monter l'élément supérieur sur la zone de fixation et monter l'assemblage de câble sur l'élément supérieur.
- Pour empêcher l'écartement des rideaux de l'abri il faut appliquer aux endroits indiqués (A) des rivets tubulaires supplémentaires (pas pour PVC 3 mm Type 574) avant l'installation des lignes cornières en aluminium et les boulons de fixation standard (Voir Fig. D).
- Monter les rideaux sur le sas avec les diagonales en aluminium.
- Relier l'assemblage de câble aux rideaux latéraux.
- Monter les fjongs (les courroies de retenue).
- Mastiquer l'ouverture entre le châssis supérieur et la façade.

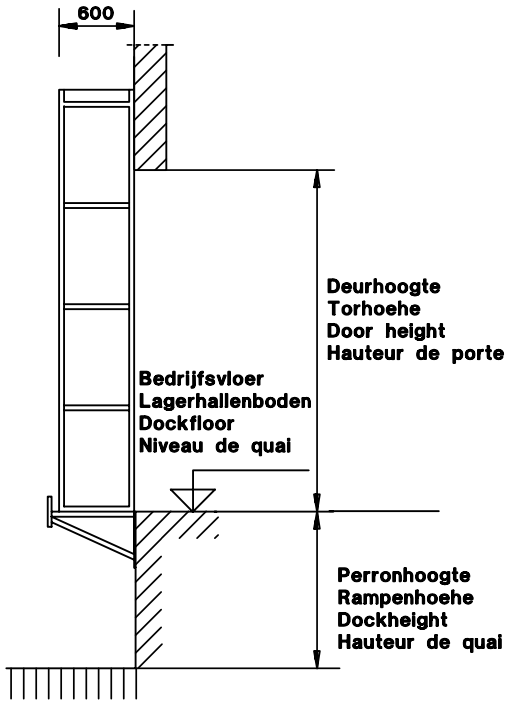
Generalites: Les rideaux doivent être déployés et tendus lors on montage, la fixation devant être commencée par les extrémités.

Pour la fixation à la façade voir page 6.

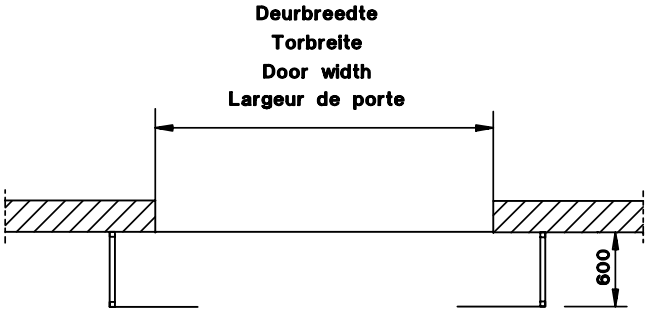
Utilisez au moins 3 boulons de fixation par châssis.



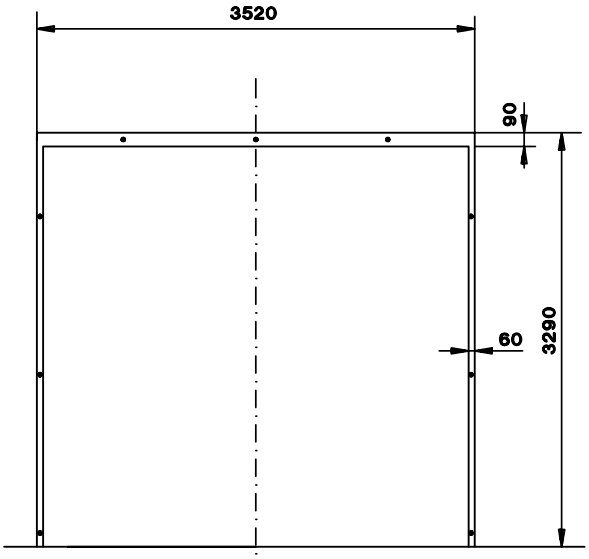
VOORAANZICHT
VORDERANSICHT
FRONT ELEVATION
VUE DE FACE



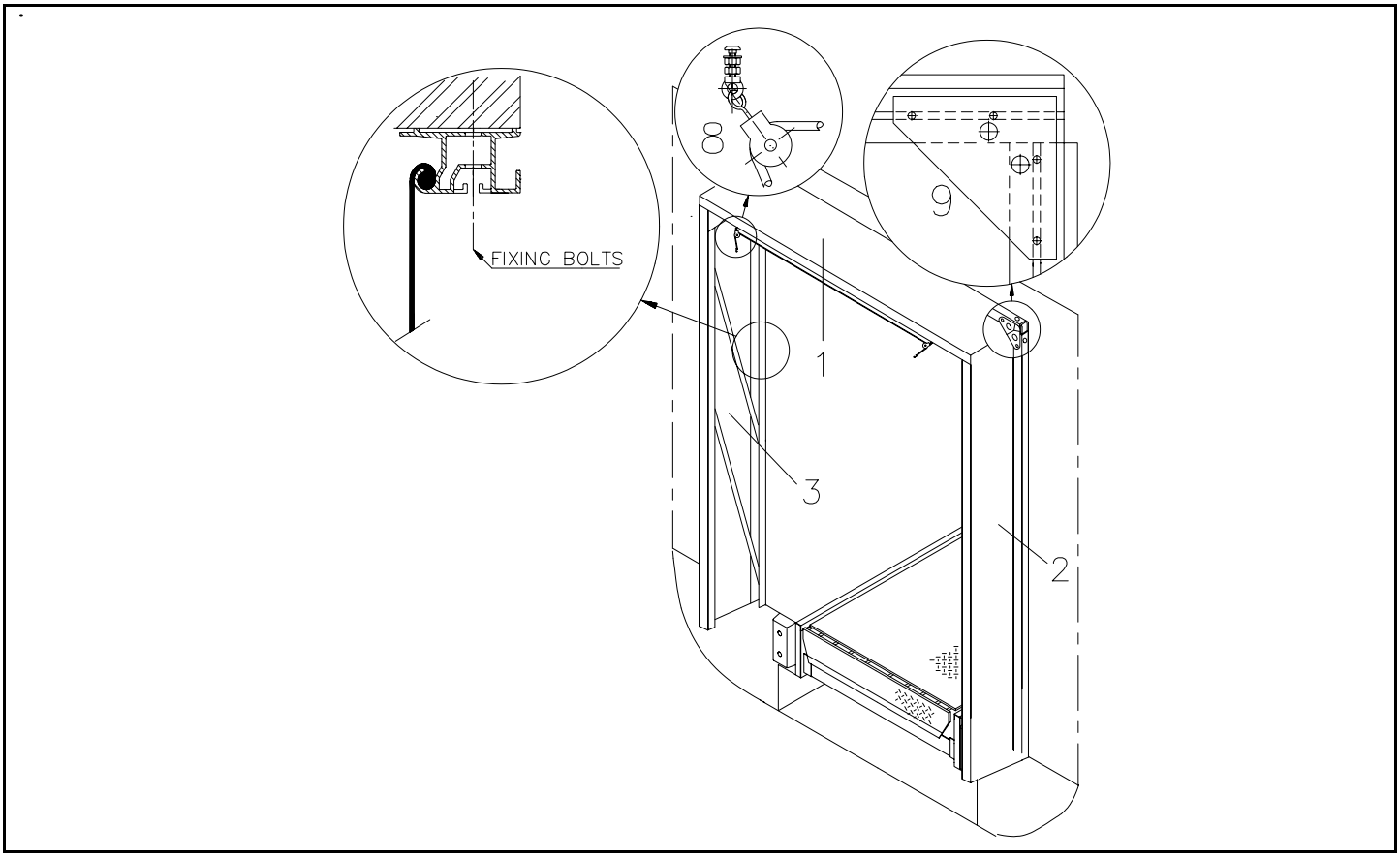
ZIJAANZICHT
SEITENANSICHT
SIDE VIEW
VUE DE COTE



DOORSNEDE
DURCHSCHNITT
SECTION A-A



MONTAGEONDERGROND
MONTAGEFLAECHE
FIXING AREA
ZONE DE FIXATION



3 INSTALLATIE WL

De WL dockshelter bestaat uit de volgende onderdelen:

1) Bovenframe
2) Zijframe (rechts)
3) Zijframe (links)
4) Zijgordijn (links)
5) Zijgordijn (rechts)
6) Bovengordijn
7) Fjongs (2x)
8) Kabelsamenstelling
9) Hoekstuk
10) Bevestigingsmateriaal
11) Afdichtingsdoppen

- De bouwkundig te verzorgen montageondergrond dient vlak te zijn en bestand tegen druk/eigengewicht van 350 kg.
- Monteer de zijgordijnen in de het linker en rechter zijframe en bevestig deze vervolgens aan de gevel.
- Monteer het bovengordijn in het bovenframe en bevestig het op de zijframes met behulp van hoekstukken.
- Bevestig het bovenframe aan de gevel. Monteer de kabelsamenstelling aan het bovenframe.
- Monteer de afdichtingsdoppen in het bovenframe en vervolgens de fjongs.
- De hamerkopbout met flensmoer eerst bevestigen, daarna zeskant moer met oogmoer.
- Oogmoer vertikaal positioneren en daarna borgen met zeskant moer.
- De opening tussen bovenframe en gevel afkitten.

Algemeen: De gordijnen moeten strakgetrokken worden door de uiteinden van de gordijnen onder trekkracht te monteren.

Voor bevestiging aan gevel zie pagina 9.

Per frame minimaal 3 bevestigingsbouten aanbrengen.

3 INSTALLATION WL

Die WL Torabdichtung muss aus folgenden Teilen bestehen:

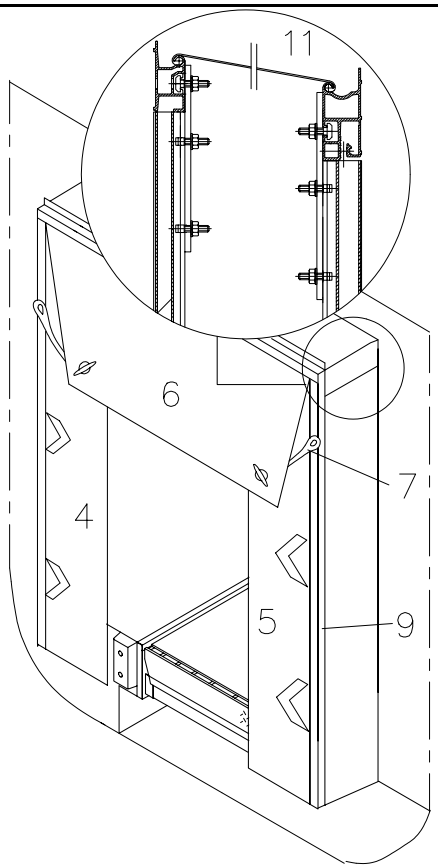
1) Obenrahmen
2) Seitenrahmen (Rechts)
3) Seitenrahmen (Links)
4) Seitenvorhang (Links)
5) Seitenvorhang (Rechts)
6) Obenvorhang
7) Fjongs (2x)
8) Kabelzusammenstellung
9) Eckstück
10) Befestigungsmaterial
11) Verschlusskappen

- Die Bauseitig zu schaffen Montagefläche muss flach sein und dem Druck/Eigengewicht von 350 kg. wiederstehen können.
- Montieren Sie die Seitenvorhänge im linken und rechten Seitenrahmen, und befestigen Sie sie daraufhin an der Front.
- Montieren Sie den Obervorhang im Oberrahmen, und befestigen Sie ihn mit Hilfe von Eckstücken an den Seitenrahmen.
- Befestig der Obenrahmen an der Mauer und montieren Sie die Kabelzusammenstellung an dem Obenrahmen.
- Montieren Sie die Verschlusskappen im Oberrahmen und daraufhin die Fjongs.
- Fixieren Sie zunächst die Hammerschraube mit Bundmutter, danach die Sechskantmutter mit Augenmutter.
- Positionieren Sie die Augenmutter vertikal, und sichern Sie sie daraufhin mit der Sechskantmutter.
- Die Öffnung zwischen dem Oberrahmen und der Front verschließen.

Allgemein: Die Vorhänge müssen Straffgezogen werden durch die Ende der Vorhänge mit Zugkraft zu montieren.

Für die Befestigung an der Mauer siehe Seite 9.

Pro Rahmen mindestens 3 Befestigungsbolzen verwenden.



3 INSTALLATION WL

The WL dockshelter consists of the following parts:

1) Headframe
2) Sideframe (right)
3) Sideframe (left)
4) Sidecurtain (left)
5) Sidecurtain (right)
6) Headcurtain
7) Fjongs (2x)
8) Cable assembly
9) Corner angle
10) Fixing material
11) Seal caps

- The fixing area, which has to be provided by the customer, must be flush and able to support the dockshelterweight/ pressure of approximately 350 kg.
- Fit the side curtains to the left and right side frames and then fasten these to the wall.
- Fit the upper curtain to the upper frame and then fasten this to the side frames by means of angle pieces.
- Mount the headframe to the fixing area. Fix the cable assembly under the headframe.
- Fit the sealing caps in the upper frame and then fit the fjongs
- First fit the hammerhead bolt with the flanged nut, then the hexagon nut with the eye nut.
- Position the eye nut vertically, then secure it with the hexagon nut.
- The opening between upper frame and wall must be sealed off by means of putty.

General: Curtains should be stretched when mounted by first fastening the ends of the curtains under tension.

For fastening to wall see page 9.

Use at least 3 fastening bolts per frame.

2 L'INSTALLATION WL

Lors de livraison d'un sas complet, les pièces ci-dessous doivent être présentes:

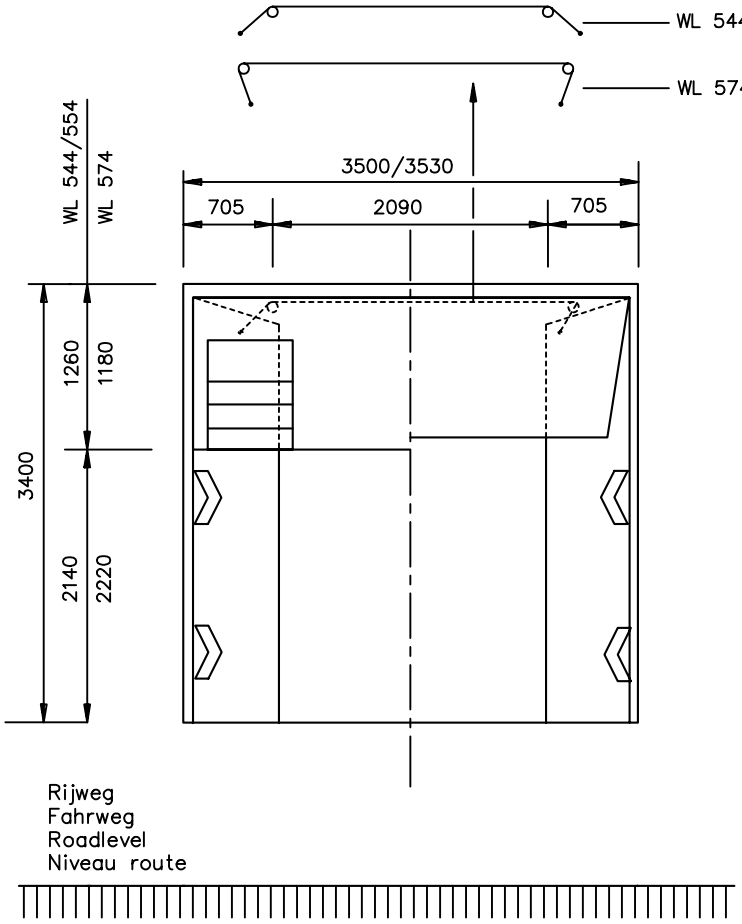
1) Elément supérieur
2) Elément côté droite
3) Elément côté gauche
4) Rideau côté gauche
5) Rideau côté droite
6) Rideau supérieur
7) Fjongs (2x) (courroies de retenue)
8) Assemblage câble
9) Cornières
10) Matériel de fixation
11) Bouchons d'obturation

- La zone de fixation prévue par le client doit être lisse et capable de supporter le poids et la pression du sas à rideaux d'approximativement 350 kg.
- Montez les rideaux latéraux dans les châssis latéraux gauche et droit et fixez-les ensuite sur la façade.
- Montez le rideau supérieur dans le châssis supérieur et fixez-le sur les châssis latéraux à l'aide de cornières.
- Monter l'élément supérieur sur la zone de fixation et monter l'assemblage de câble sur l'élément supérieur.
- Montez les bouchons d'obturation dans le châssis supérieur et ensuite les fjongs.
- Fixez d'abord le boulon à tête en T avec l'écrou bourrelet, fixez ensuite l'écrou à six pans avec l'écrou à anneau.
- Positionnez verticalement l'écrou à anneau, verrouillez-le ensuite à l'aide d'un écrou à six pans.
- Mastiquer l'ouverture entre le châssis supérieur et la façade.

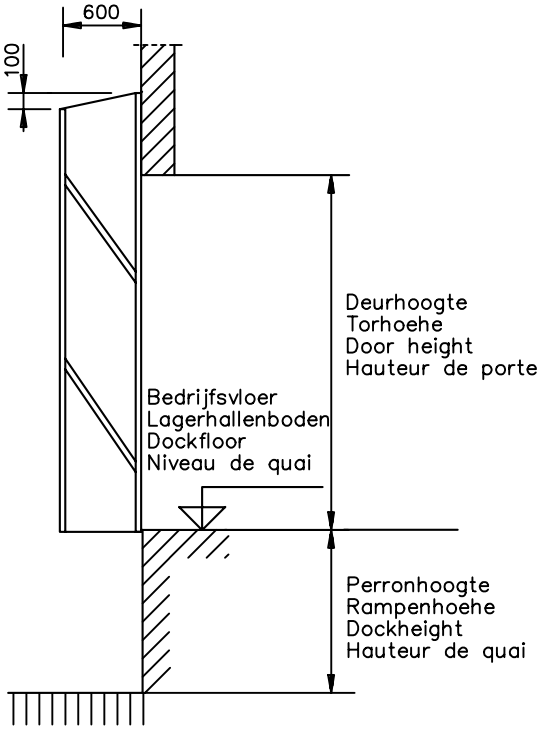
Generalites: Les rideaux doivent être déployés et tendus lors on montage, la fixation devant être commencée par les extrémités.

Pour la fixation à la façade voir page 9.

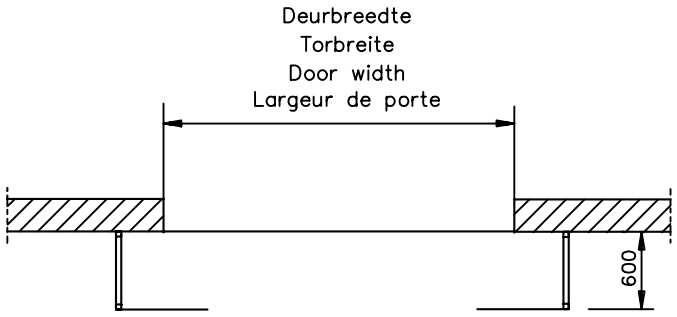
Utilisez au moins 3 boulons de fixation par châssis.



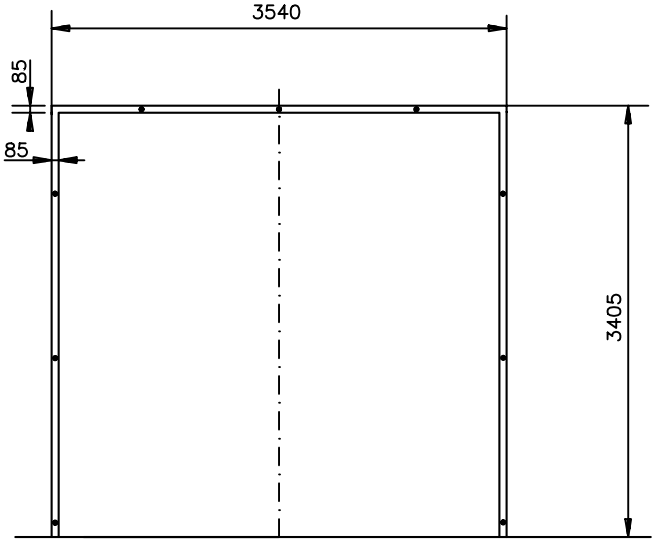
VOORAANZICHT
VORDERANSICHT
FRONT ELEVATION
VUE DE FACE



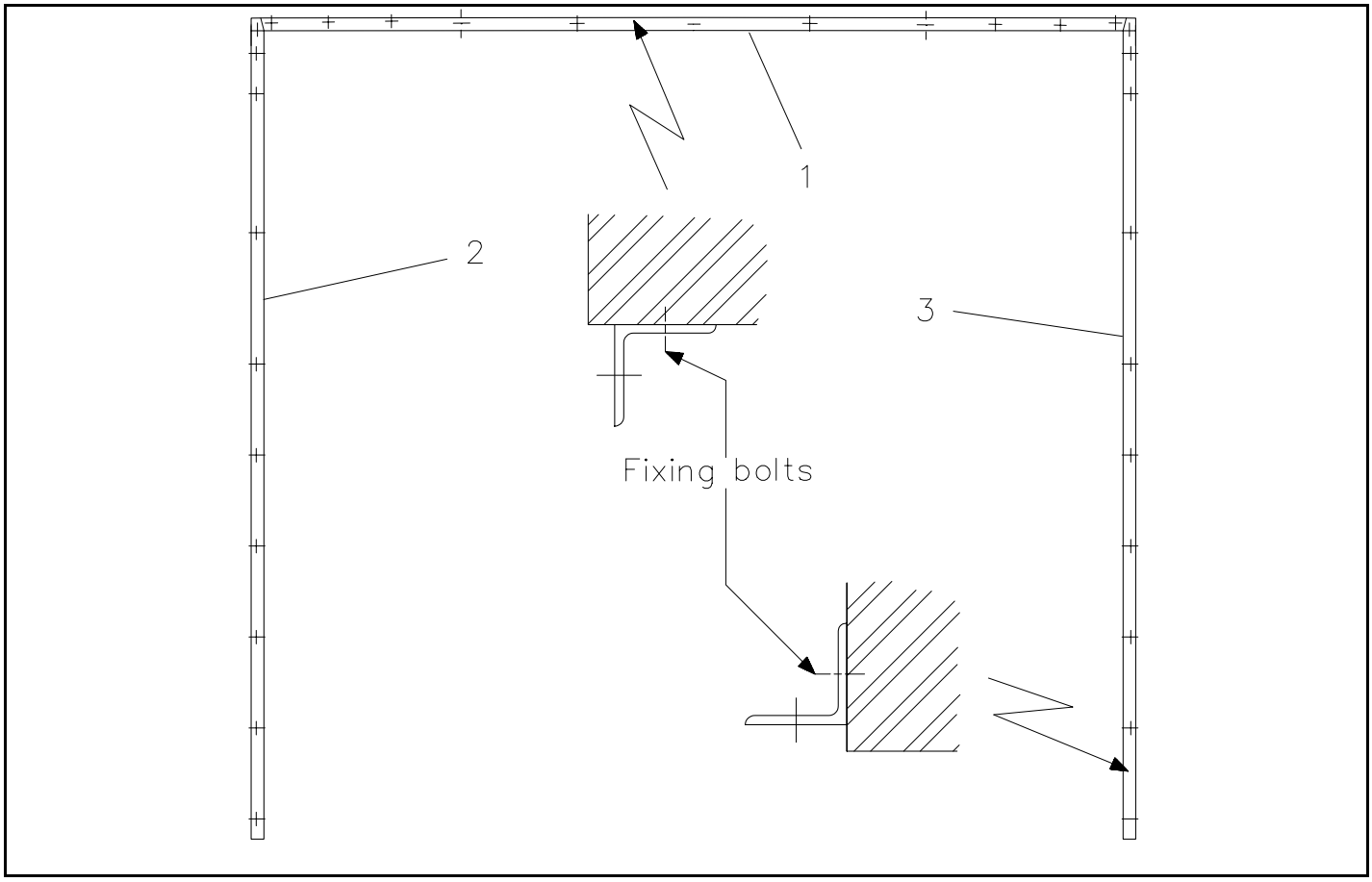
ZIJAANZICHT
SEITENANSICHT
SIDE VIEW
VUE DE COTE



DOORSNEDE
DURCHSCHNITT
SECTION



MONTAGEONDERGROND
MONTAGEFLAECHE
FIXING AREA
ZONE DE FIXATION



4 INSTALLATIE WF

De WF dockshelter bestaat uit de volgende onderdelen:
1) Hoekprofiel (boven)
2) Hoekprofiel (rechts)
3) Hoekprofiel (links)
4) Zijgordijn (links)
5) Zijgordijn (rechts)
6) Bovengordijn
7) Hoekprofiel (achter) (3x)
8) Fjongs (2x)
9) Kabelsamenstelling
   Bevestigingsmateriaal

- De bouwkundig te verzorgen montageondergrond dient vlak te zijn en bestand tegen druk/eigengewicht van 350 kg.
- Bevestig de hoekprofielen in de deuropening aan de gevel.
- Monteer de zijgordijnen en het bovengordijn aan de hoekprofielen (voor) met behulp van de hoekprofielen (achter).
- Ter voorkoming van het wegtrekken van de sheltergordijnen dient er op de aangegeven plaatsen (A) extra popnagels te worden aangebracht (niet voor 3 mm PVC Type 574), voordat de aluminium hoeklijnen en standaard bevestigingsbouten worden aangebracht (zie Fig. D).
- Monteer de kabelsamenstelling boven aan het hoekprofiel (achter) en bevestig de haken aan de zijgordijnen.
- Monteer de fjongs.

Algemeen: De gordijnen moeten strakgetrokken worden door de uiteinden van de gordijnen onder trekkracht te monteren.

Voor bevestiging aan gevel zie pagina 12.

Per frame minimaal 3 bevestigingsbouten aanbrengen.

4 INSTALLATION WF

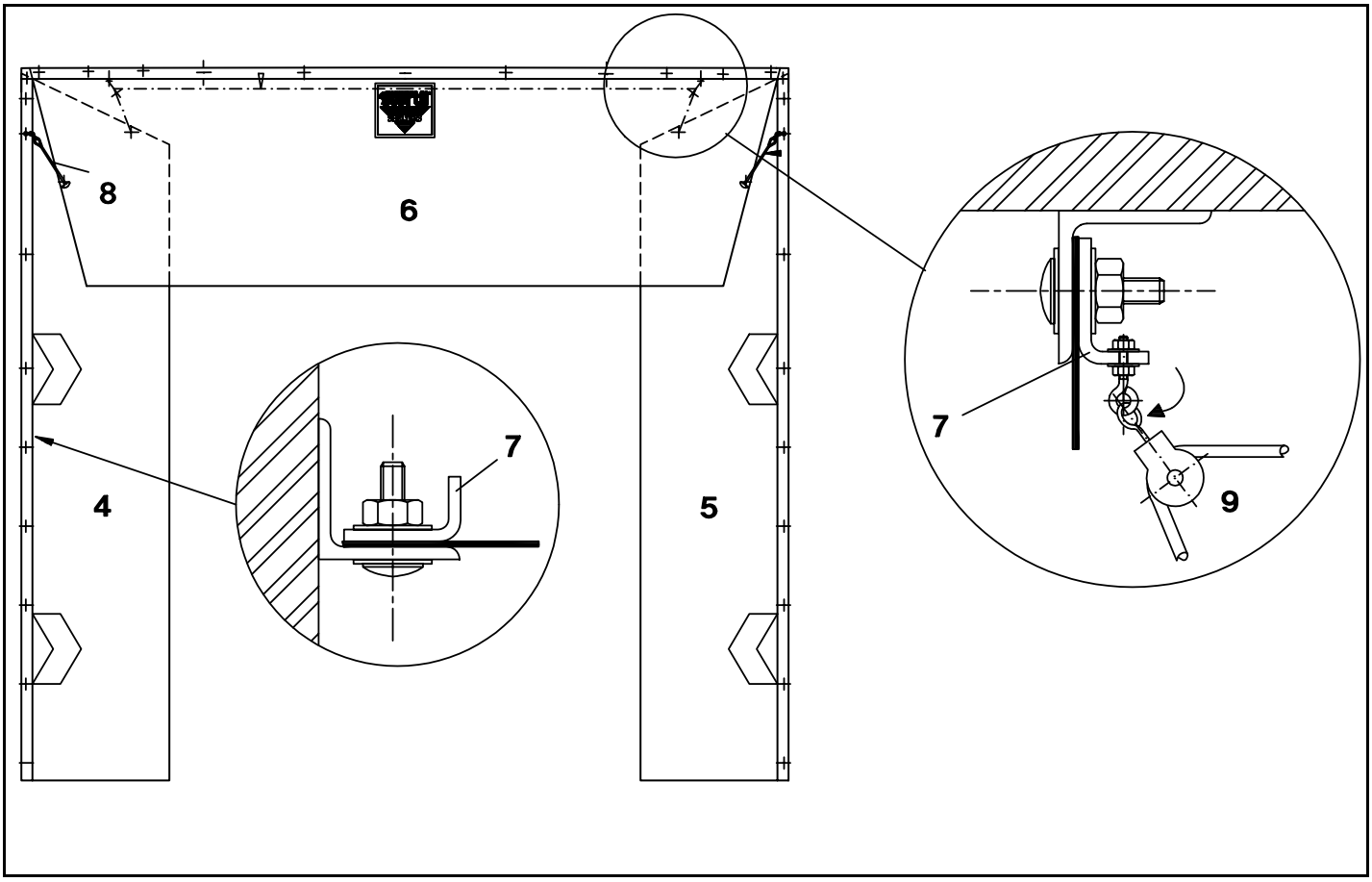
Die WF Torabdichtung muss aus folgenden Teilen bestehen:
1) Obenwinkelprofil
2) Seitenwinkelprofil (Links)
3) Seitenwinkelprofil (Rechts)
4) Seitenvorhang (Links)
5) Seitenvorhang (Rechts)
6) Obenvorhang
7) Winkelprofile (Hinten) (3x)
8) Fjongs (2x)
9) Kabelzusammenstellung
   Befestigungsmaterial

- Die Bauseitig zu schaffen Montagefläche muss flach sein und dem Druck/Eigengewicht von 350 kg. wiederstehen können.
- Befestigen Sie die Linker- und Rechterseiten-winkelprofil und der Obenwinkelprofil an der Mauer.
- Befestigen Sie die Seitenvorhänge und der Obenvorhang mit Hilfe der Hinterwinkelprofile.
- Um zu verhüten dass die Sheltervorhänge aufgezogen werden, sind an den angegeben Stellen (A) zusätzliche Hohlniete anzubringen (nicht für 3 mm PVC Typ 574), bevor die Eckleisten aus Aluminium und die Standardbefestigungsbolzen angebracht werden (Siehe Abb. D).
- Montieren Sie die Kabelzusammenstellung oben an dem Hinterwinkelprofil
- Befestigen Sie die Kabelzusammenstellung an den Seitenvorhänge.
- Montieren Sie den Fjongs.

Allgemein: Die Vorhänge müssen Straffgezogen werden durch die Ende der Vorhänge mit Zugkraft zu montieren.

Für die Befestigung an der Mauer siehe Seite 12.

Pro Rahmen mindestens 3 Befestigungsbolzen verwenden.



4 INSTALLATION WF

The WF dockshelter consists of the following parts:
1) Top front angle profile
2) Side front angle profile (left)
3) Side front angle profile (right)
4) Sidecurtain (left)
5) Sidecurtain (right)
6) Headcurtain
7) Rear angle profiles (3x)
8) Fjongs (2x)
9) Cable assembly
   Fixing material

- The fixing area, which has to be provided by the customer, must be flush and able to support the dockshelterweight/ pressure of approximately 350 kg.
- Mount the left and right side front angle profiles and the top front angle profile to the fixing area.
- Mount the side curtains and the head curtain to the front angles by using the rear angle profiles.
- To prevent the shelter curtains from being drawn away extra pop rivets are to be placed at the locations indicated (A) (not for 3 mm PVC Type 574) before the aluminium angle strips and the standard fastening bolts are applied (See Fig. D).
- Fix the cable assembly under the top rear angle and connect the hooks of the cable assembly with the side curtains.
- Mount the fjongs.

General: Curtains should be stretched when mounted by first fastening the ends of the curtains under tension.

For fastening to wall see page 12.

Use at least 3 fastening bolts per frame.

4 L'INSTALLATION WF

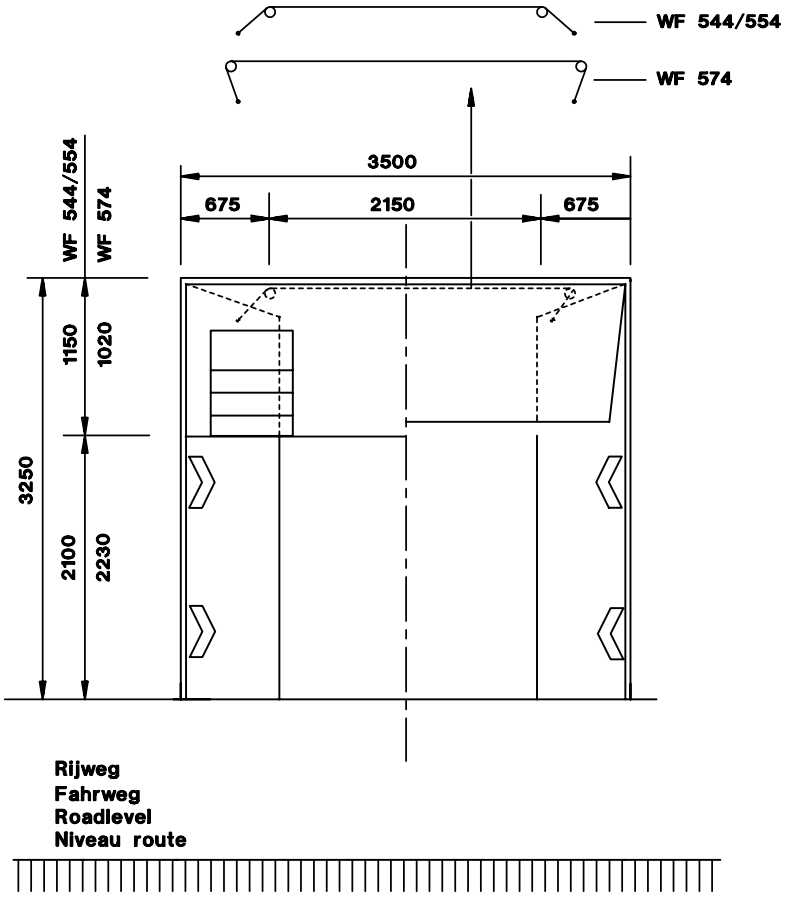
Lors de livraison d'un sas complet, les pièces ci-dessous doivent être présentes:
1) Cornière supérieur devant
2) Cornière côté gauche devant
3) Cornière côté droite devant
4) Rideau côté gauche
5) Rideau côté droite
6) Rideau supérieur
7) Cornières en arrière
8) Fjongs (2x) (courroies de retenue)
9) Assemblage câble
   Matériel de fixation

- La zone de fixation prévue par le client doit être lisse et capable de supporter le poids et la pression du sas à rideaux d'approximativement 350 kg.
- Monter les cornières côté gauche devant, - côte droit devant et - supérieur devant sur la zone de fixation.
- Monter les rideaux sur les cornières devant avec les cornières en arrière.
- Pour empêcher l'écartement des rideaux de l'abri il faut appliquer aux endroits indiqués (A) des rivets tubulaires supplémentaires (pas pour PVC 3 mm Type 574) avant l'installation des lignes cornières en aluminium et les boulons de fixation standard (Voir Fig. D).
- Monter l'assemblage de câble sur le cornière supérieur en arrière.
- Relier l'assemblage de câble aux rideaux latéraux.
- Monter les fjongs (les courroies de retenue).

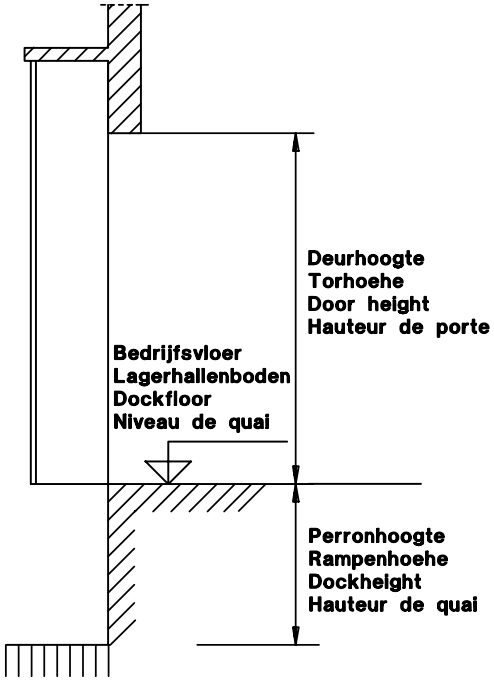
Generalites: Les rideaux doivent être déployés et tendus lors on montage, la fixation devant être commencée par les extrémités.

Pour la fixation à la façade voir page 12.

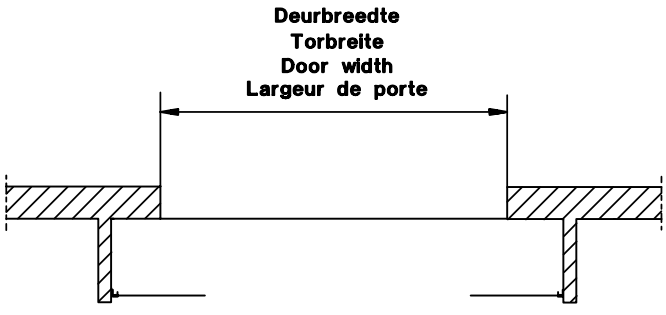
Utilisez au moins 3 boulons de fixation par châssis.



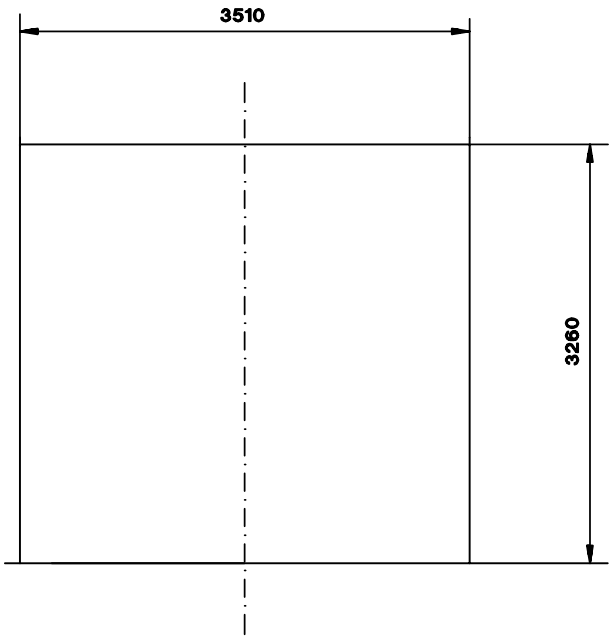
VOORAANZICHT
VORDERANSICHT
FRONT ELEVATION
VUE DE FACE



ZIJAANZICHT
SEITENANSICHT
SIDE VIEW
VUE DE COTE



DOORSNEDE
DURCHSCHNITT
SECTION



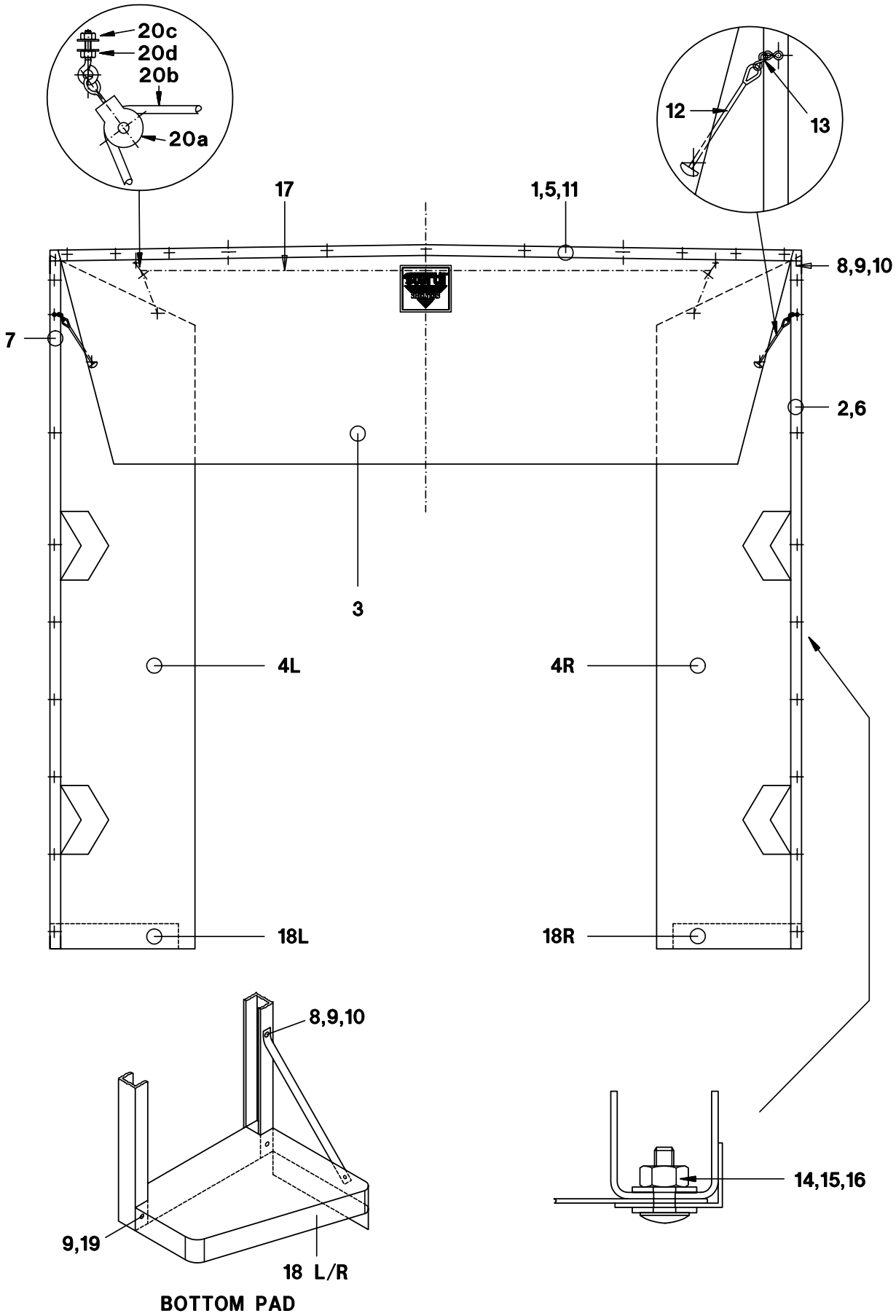
MONTAGEONDERGROND
MONTAGEFLAECHE
FIXING AREA
ZONE DE FIXATION

FIG. A PARTS WS

INDEX	REFERENCE	DESCRIPTION
1	15-525-200*	Head frame assembly
2	15-525-100*	Side frame assembly
3		Head curtain
4		Side curtain (left & right)
5	15-525-021*	Angle (top)
6	15-535-011*	Angle (right)
7	15-535-016*	Angle (left)
8	65-003-363	Bolt M8 x 20 DIN 933
9	65-055-018	Washer M8 DIN 125
10	65-050-132	Nut M8 DIN 934
11	90-899-019	Seal L=3600
12	925-440	Fjong
13	15-425-150	Fjong chain
14	65-725-004	Socket domed head screw M8 x 25
15	65-655-713	Washer 35 x 11.5 x 1.5 aluminium
16	65-750-132	Bolt
17	15-510-018	Cable assembly
18	15-430-210	Bottom pad left (optional)
	15-430-220	Bottom pad right (optional)
19	65-010-069	Hexagon headwood screws
20a	15-425-160	Pulley
20b	925-450	Cord
20c	65-050-132	Nut
20d	65-055-306	Washer

* Alleen voor standaard model. Raadpleeg uw leverancier in geval van een niet-standaard model!
Nur für standard Modell. Befragen Sie ihren Lieferanten im Fall eines Sondermodells!
For standard model only. Contact your supplier in case of a non-standard model!
Seulement pour modèle standard. Contacter votre fournisseur en cas d'un modèle non-standard!

FIG. A



BOTTOM PAD

FIG. B PARTS WL

INDEX	REFERENCE	DESCRIPTION
1	15-570-211*	Top frame channel front (Type 574)
	15-571-211*	Top frame channel front (Type 544 and 554)
2	15-570-201*	Top frame channel rear
3	15-570-126*	Side frame channel front (Type 574)
	15-571-126*	Side frame channel front (Type 544 and 554)
4	15-570-101*	Side frame channel rear
5	15-570-225*	Top projection cloth (transparent)
	15-570-725*	Top projection cloth (black)
6R	15-570-125*	Side projection cloth right (tansparent)
	15-570-625*	Side projection cloth right (black)
6L	15-570-175*	Side projection cloth left (transparent)
	15-570-675*	Side projection cloth left (black)
7	15-570-050*	Hinge arm assy
7a	15-570-025	Hinge
8	15-570-040	Bracket
9	15-570-020*	Top curtain
10R	15-570-010*	Side curtain (right)
10L	15-570-015*	Side curtain (left)
11	15-570-045	Cable assy (Type 574)
	15-571-045	Cable assy (Type 544 and 554)
11a	15-570-044	Pulley
11b	925-450	Cord
11c	65-050-132	Nut
12	925-440	Fjong
13	15-425-150	Fjong chain
14	65-045-007	Bolt
15	65-052-915	Nut
16	65-045-010	Plate bolt
17	65-045-011	Plate bolt
18+19	15-570-033	Set covers 2x front + 2x rear (transparent)
	15-570-533	Set covers 2x front + 2x rear (black)
20	5-010-069	Hexagon head wood screw
21	15-570-065	Bottom pad left (optional)
	15-570-060	Bottom pad right (optional)
22	65-045-009	Screw (self drilling/tapping)
23	65-055-708	Washer

* Alleen voor standaard model. Raadpleeg uw leverancier in geval van een niet-standaard model!
Nur für standard Modell. Befragen Sie ihren Lieferanten im Fall eines Sondermodells!
For standard model only. Contact your supplier in case of a non-standard model!
Seulement pour modèle standard. Contacter votre fournisseur en cas d'un modèle non-standard!

FIG. B

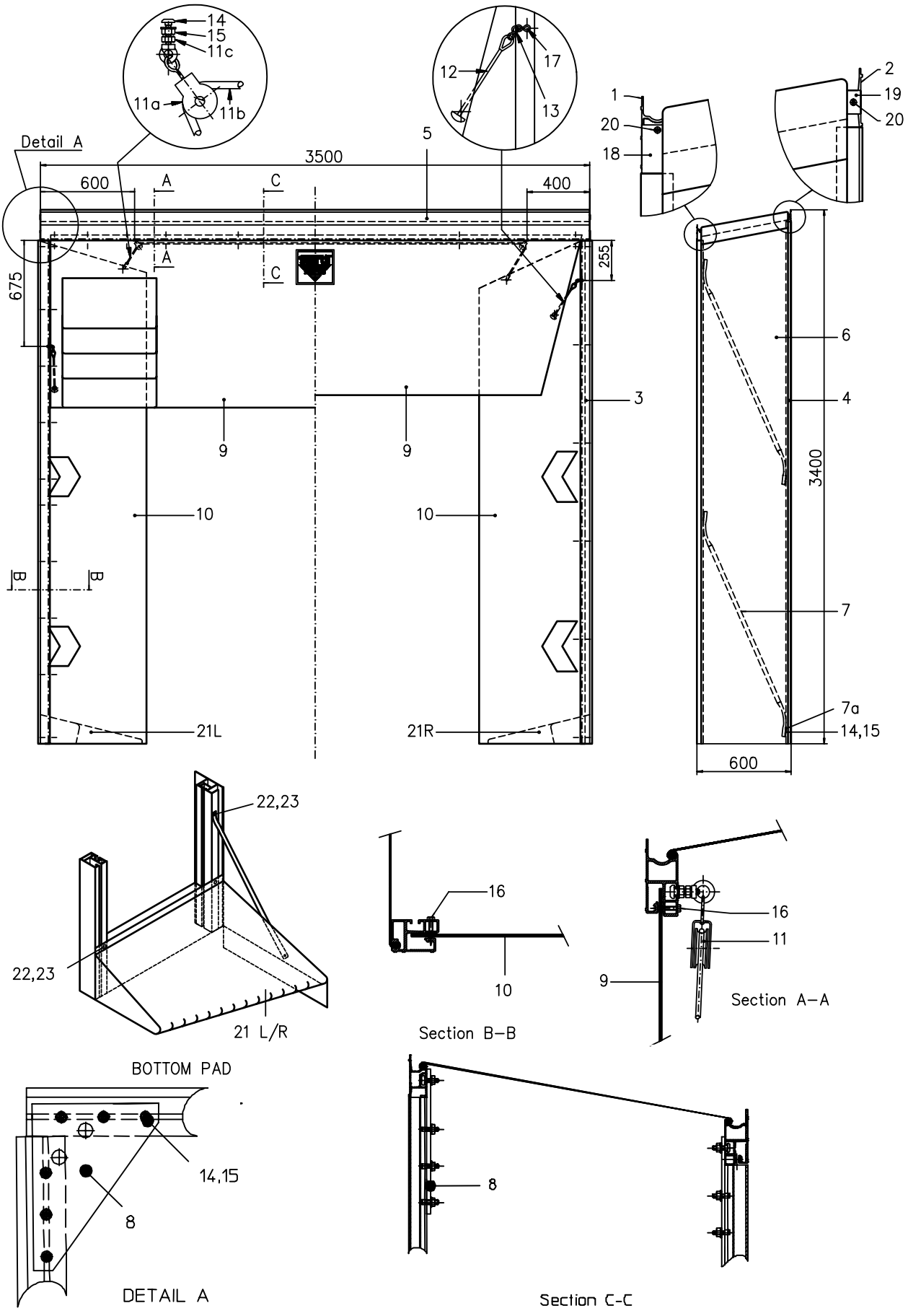

14
15
11c
11a
11b
Detail A
12
17
13
5
3500
600
A
C
400
1
20
18
2
19
20
675
255
6
4
3
9
9
10
10
3400
B
B
7
7a
14,15
21L
21R
600
22,23
22,23
21 L/R
BOTTOM PAD
16
10
Section B–B
16
11
9
Section A–A
14,15
8
DETAIL A
8
Section C-C

FIG. C PARTS WF

INDEX	REFERENCE	DESCRIPTION
1	15-500-210*	Top front angle
2	15-500-110*	Side front angle
3		Top curtain
4		Side curtain (left & right)
5	15-500-021*	Angle (top)
6	15-500-011*	Angle (right)
	15-500-016*	Angle (left)
7	925-440	Fjong
8	15-425-150	Fjong chain
9	65-725-004	Socket domed head screw M8 x 25
10	65-655-713	Washer 35 x 11.5 x 1.5
11	65-750-132	Nut DIN 934
12	15-510-018	Cable assembly
12a	15-425-160	Pulley
12b	925-450	Cord
12c	65-050-132	Nut
12d	65-055-306	Washer

* Alleen voor standaard model. Raadpleeg uw leverancier in geval van een niet-standaard model!
Nur für standard Modell. Befragen Sie ihren Lieferanten im Fall eines Sondermodells!
For standard model only. Contact your supplier in case of a non-standard model!
Seulement pour modèle standard. Contacter votre fournisseur en cas d'un modèle non-standard!

FIG. C

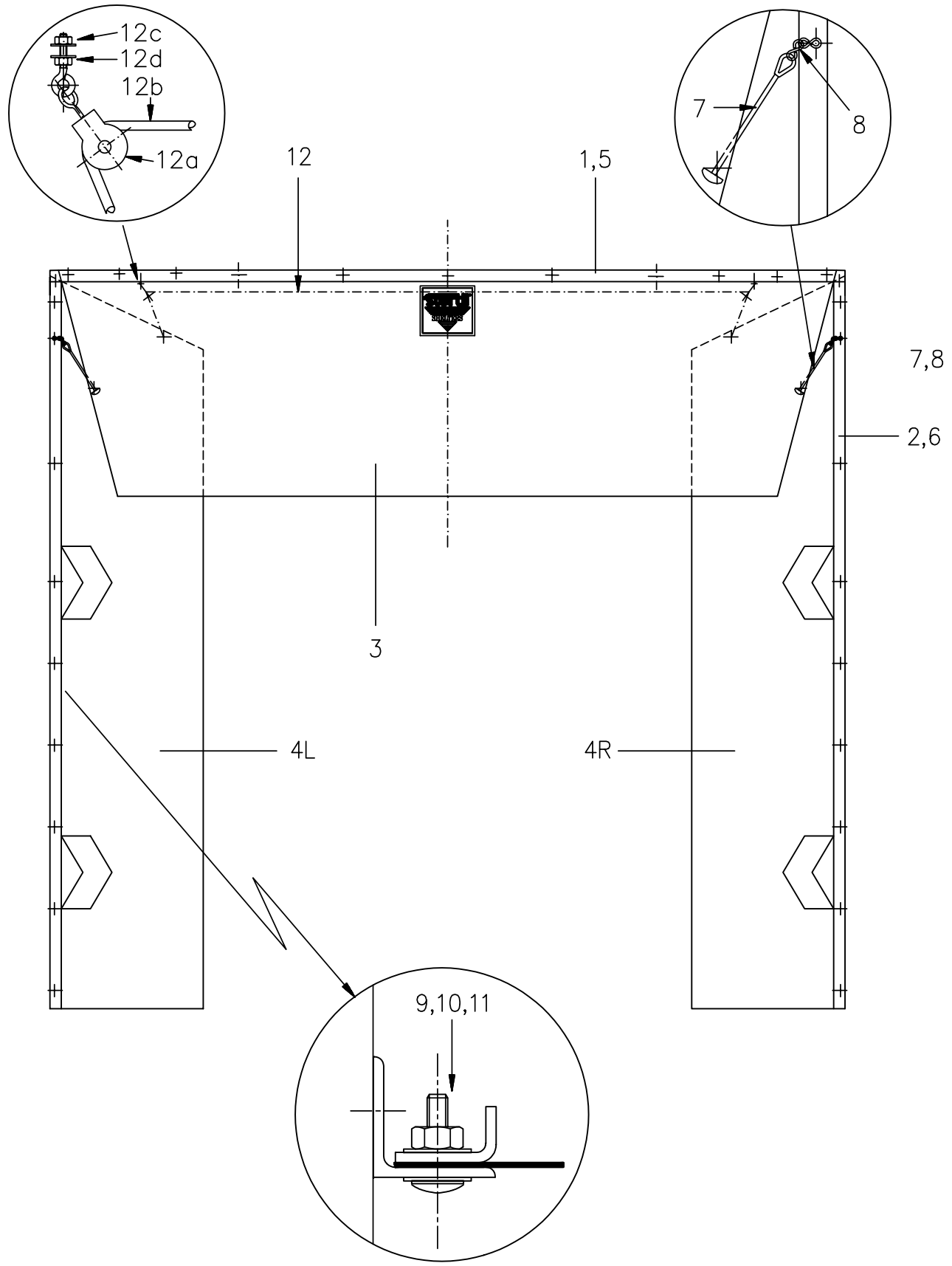
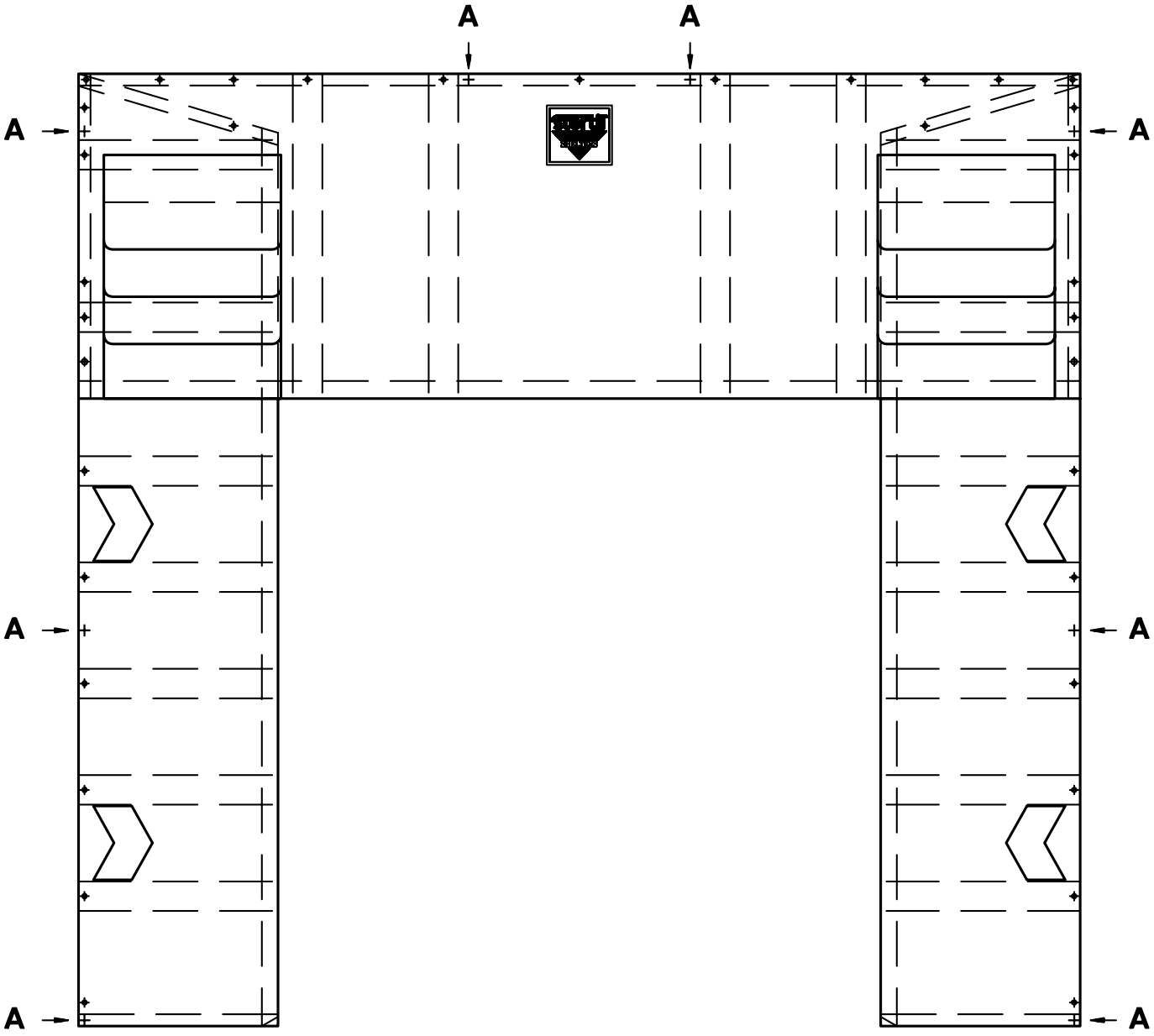


FIG. D INSTRUCTION POP RIVETS (TYPE WS AND WF)



stertil®

DOCKPRODUCTS

Manufactured by:

stertil®

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Installatie instructies shelters WIS 300
Installationsanleitung Torabdichtungen WIS 300
Installation instructions dockshelters WIS 300
Instruction à l'installation sas d'étanchéité WIS 300

STERTIL B.V.
WESTKERN 3
9288 CA KOOTSTERTILLE NL

15350005 0

INSTALLATIE INSTRUCTIES

voor de

STERTIL dockshelters

Type WIS 300

- Wijzigingen voorbehouden -

INSTALLATIONSANLEITUNG

für die

Torabdichtungen von **STERTIL**

Modellen WIS 300

- Änderungen vorbehalten -

INSTALLATIONSANLEITUNG

für die

Torabdichtungen von **STERTIL**

Modellen WIS 300

- Änderungen vorbehalten -

INSTRUCTION A L'INSTALLATION

du

sas d'étanchéité **STERTIL**

Modèle WIS 300

- Sous réserve de modifications -

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1. ALGEMEEN

Fabrikant:	STERTIL B.V. Westkern 3 9288 CA Kootstertille NL
Product:	Dockshelter met gordijnen en opblaasbaar bovenkussen
Typen:	WIS 300
Vermogen:	0,55 kW
Netaansluiting:	Δ/Y 230/400 V 50 Hz

1. ALLGEMEIN

Hersteller:	STERTIL B.V. Westkern 3 9288 CA Kootstertille NL
Produkt:	Planentorabdichtung mit aufblasbaren Obenkissen
Typen:	WIS 300
Leistung:	0,55 kW
Netzanschluβ:	Δ/Y 230/400 V 50 Hz

1. GENERAL

Manufacturer:	STERTIL B.V. Westkern 3 9288 CA Kootstertille NL
Product:	Dockshelter with curtains and inflatable head cushion
Models:	WIS 300
Power:	0,55 kW
Mains supply:	Δ/Y 230/400 V 50 Hz

1. GENERALITES

Fabricant:	STERTIL B.V. Westkern 3 9288 CA Kootstertille NL
Produit:	Sas d'étanchéité avec rideaux et coussin supérieur gonflable
Types:	WIS 300
Capacité:	0,55 kW
Raccord du réseau:	Δ/Y 230/400 V 50 Hz

2. VOORWOORD

De WIS gordijnenshelters met opblaasbaar bovenkussen worden in delen getransporteerd en op locatie met behulp van bijvoorbeeld een heftruck of autolaadkraan tot een compleet dockshelter opgebouwd. Alhoewel niet standaard inbegrepen, dient de dockshelter bij voorkeur op ondersteunende en beschermende bumpers te worden gemonteerd, uitgezonderd het rijwegmodel. De gevel waartegen de dockshelter gemonteerd wordt dient vlak en vrij van obstructies te zijn. Tevens moet deze bestand zijn tegen het eigen gewicht van 350 kg en duw- en trekkrachten die door de dockshelter op de gevel uitgeoefend kunnen worden.

3. KORT OVERZICHT MONTAGE

Bevestigingspunten voor bumpers (optie) en shelter aftekenen, boren en eventueel bevestigingsmiddelen aanbrengen. Nadat de bumpers zijn gemonteerd worden de zijsecties daarop geplaatst en aan de gevel bevestigd. Bij het rijwegmodel de zijsecties op 5-10 cm boven de rijbaan plaatsen. Dan wordt de bovensectie, met ventilator, met bijvoorbeeld een heftruck of autolaadkraan, op de zijsecties geplaatst, aan de gevel bevestigd en afgekit. Zij- en bovengordijnen aanbrengen, ventilator elektrisch aansluiten, contragewicht en bovenkussengeleiding monteren. Afhankelijk van de omstandigheden kan van deze door Stertil aanbevolen montagevolgorde afgeweken worden.

2. VORWORT

Die WIS Planentorabdichtungen mit aufblasbaren Obenkissen werden in Teilen antransportiert und vor Ort zum Beispiel mit Hilfe eines Gabelstaplers oder Autoladekrans zu einer kompletten Torabdichtung zusammengebaut. Obwohl nicht serienmäßig in der Lieferung enthalten, ist die Torabdichtung - mit Ausnahme des Fahrbahnmodells - vorzugsweise auf Schutzpuffer zu montieren, die Unterstützung und Schutz bieten. Die Fassade, an die die Torabdichtung montiert wird, muss flach und hindernisfrei sein. Außerdem muss sie durch das Eigengewicht von 350 kg und Druck- und Zugkräfte von der Torabdichtung auf die Fassade belastet werden können.

3. KURZE MONTAGEÜBERSICHT

Die Befestigungspunkte für Schutzpuffer (optional) und Torabdichtung abzeichnen und bohren, und eventuell Befestigungsmaterialien anbringen. Nachdem die Schutzpuffer montiert sind, werden die Seitenplatte darauf angebracht und an der Fassade befestigt. Bei dem Fahrbahnmodell sind die Seitenplatte 5-10 cm über der Fahrbahn anzubringen. Daraufhin wird der Deckplatte, mit Ventilator, zum Beispiel mit Hilfe eines Gabelstaplers oder eines Autoladekrans auf den Seitenplatten aufgestellt, an der Fassade befestigt und mit Dichtungsmasse verschlossen. Die Seiten- und Oberschürzen anbringen, den Ventilator elektrisch anschließen, das Gegengewicht und die Obenkissenführung montieren. Je nach den Umständen kann von dieser von Stertil empfohlenen Montagereihenfolge abgewichen werden.

2. FOREWORD

The WIS curtain shelters with inflatable head cushion are transported in sections and assembled on site into a complete dockshelter by means of, for example, a forklift or truck-mounted crane. Except when the road level model is used, the dockshelter should preferably be placed on supporting, protective brackets. The wall to which the dock shelter is mounted should be smooth and free of obstructions. It should also be capable of withstanding a dead weight of 350 kg and the pushing and tensile forces, which can be exerted by the dockshelter on the wall.

3. SUMMARY OF ASSEMBLY

Mark off the fastening points for the bumpers (optional) and shelter; drill holes and if necessary fit fasteners. When the bumpers have been fitted, place the side panels on them and fit them to the wall. For the road level model, place the side panels 5-10 cm above the pavement. Next, with the help of equipment such as a forklift or truck-mounted crane, place the upper panel, including ventilator, on the side panels, fit it to the wall and seal it off by means of putty. Install the side and top curtains, connect the ventilator to the mains, fit the counterweight and the head cushion guiding. Depending on the circumstances, this installing sequence recommended by Stertil can be deviated from.

2. AVANT-PROPOS

Les sas à rideaux WIS avec coussin supérieur gonflable sont transportés par parties; dans le lieu de destination les parties sont assemblées à l'aide de par exemple un chariot élévateur ou une grue de chargement. Bien que la livraison standard ne comprenne pas des consoles, il faut monter le sas d'étanchéité de préférence sur des consoles soutenant et protégeant le sas d'étanchéité, à l'exception du modèle chaussée. Le mur contre lequel le sas d'étanchéité est monté, doit être plat et dépourvu d'obstacles. En outre, celui-ci doit résister aux un poids net de 350 kg et aux propulsions et aux tractions, que le sas d'étanchéité peut exercer sur le mur.

3. MONTAGE EN BREF

Tracer les points de fixation des consoles protégeant (en option) et du sas d'étanchéité; percer des trous et placer éventuellement les moyens de fixation. Après le montage des consoles protégeant, les panneaux latéraux sont placés dessus, ensuite ils sont fixés à la façade. Pour le modèle chaussée les panneaux latéraux sont placés à 5-10 cm au-dessus de la chaussée. Ensuite le panneau supérieur avec le ventilateur est placé sur les panneaux latéraux à l'aide de par exemple un chariot élévateur ou une grue, puis il est fixé et mastiqué à la façade. Poser les rideaux latéraux et supérieurs, brancher le ventilateur, monter le contrepoids et la guidage du coussin supérieure. L'ordre de montage recommandé par Stertil peut être modifié, selon les circonstances.

4. MONTAGE BUMPERS (OPTIE)

Dockshelterbumpers [37] beschermen en ondersteunen de dockshelter. Bepaal het midden van de deuropening. Meet naar weerszijden de helft van de buitenwerkse breedte van de dockshelter af. De buitenafstand (b) tussen de liggers van de bumpers is gelijk aan de buitenwerkse breedte van de dockshelter. De bovenzijde van de ligger wordt op gelijke hoogte (a) met de perronvloer geplaatst. Teken de gaten voor bevestiging van de bumpers af (M16 ankerbouten, niet inbegrepen). Installeer de bumpers met de beschermprofielen voor de gordijnen naar binnen gericht (zie Fig. 1).

5. MONTAGE ZIJSECTIES

De linker en rechter zijsectie [16] worden deels voorgemonteerd geleverd. Ze worden met de onderzijde op perronhoogte (bij de rijwegmodellen op 5-10 cm boven de rijbaan) of op de bumpers gemonteerd (zie Fig. 6). De panelen worden op minimaal 3 plaatsen vastgezet aan de gevel. Gebruik hiervoor de aluminium sluitringen [31].
De positie van de bevestigingpunten voor montage van de shelter aan de gevel is aangegeven in Fig. 4. De gaten in de profielen zijn geschikt voor een boutdiameter van 8 mm (zie Fig. 2). De zijgordijnen worden los meegeleverd. Deze kunnen naar believen òf vooraf op de grond òf na montage van de shelter aan de panelen worden bevestigd (zie Fig. 3 en Fig. 5).

Let op! De gordijnen dienen strak getrokken te worden bij montage.

4. MONTAGE SCHUTZPUFFER (WAHLWEISE)

Torabdichtungspuffer [37] schützen die Torabdichtung und stützen sie ab. Bestimme die Mitte der Toröffnung. Messe beidseitig die Hälfte der äußeren Breite der Torabdichtung ab. Der äußere Abstand zwischen den Trägern der Puffer (b) ist gleich der äußeren Breite der Torabdichtung. Die Oberseite des Trägers wird auf gleiche Höhe (a) mit dem Rampenboden gebracht. Zeichne die Löcher für die Befestigung der Puffer an (M16 Ankerbolzen nicht inbegriffen). Installiere die Puffer mit den Schutzprofilen für die schürzen nach innen gerichtet (siehe Fig. 1).

5. BEFESTIGUNG DER SEITENPLATTEN

Die linke und rechte Seitenplatten [16] werden teils vormontiert geliefert. Sie werden mit der Unterseite in Rampenhöhe (bei den Fahrbahnmodellen 5-10 cm über der Fahrbahn) oder auf den Schutzpuffer montiert (sie Fig. 6). Die Platten werden auf mindestens 3 Stellen an der Fassade befestigt. Verwende dazu die Aluminium Unterlegscheiben [31]. Die Positionen der Befestigungspunkte zur Montage der Torabdichtung an der Fassade werden in Fig. 4 angegeben. Die Löcher in den Profilen eignen sich für Schrauben mit Durchmesser 8 mm (siehe Fig. 2). Die Schürzen werden einzeln mitgeliefert. Diese können nach Belieben entweder zuvor am Boden oder nach Montage der Torabdichtung an den Platten befestigt werden (siehe Fig. 3 und Fig. 5).

Achtung: die Schürzen sind während der Montage zu straffen.

4. BRACKETS (OPTIONAL)

Dock shelter brackets [37] protect and support the shelter. Determine the centre of the door opening. Measure to the two sides half the outside width of the dock shelter. The distance between the outside of the bracket girders (b) is equal to the overall width of the dock shelter. The top of the bracket should be positioned at the same height (a) as the loading dock floor. Mark out the holes for fastening the brackets (M16 anchor bolts are not included). Install the brackets with the protective profile for the dock schelter curtain directed inward (see Fig. 1).

5. INSTALLING THE SIDE PANELS

The left and right side panels [16] are supplied partly pre-assembled. They are fitted with the bottom at the level of the loading platform (5-10 cm above the pavement when the road-level version is used), or are placed on the bumpers (see Fig. 6). The panels are fitted to the wall on at least 3 positions. For this purpose use the aluminium washers [31].
In Fig. 4 he locations of the fastening points for installing the shelter to the wall are shown. The holes in the profiles are suitable for bolts with a diameter of 8 mm (see Fig. 2). The curtains are supplied separately. They can be fastened to the panels either on the ground in advance or later after installation of the shelter (see Fig. 3 and Fig. 5).

Attention! The curtains must be pulled tight during installation.

4. DES CONSOLES PROTEGEANT (OPTION)

Les consoles protégeant [37] protègent et soutiennent le sas. Définir le centre du jour de porte. De ce centre, définir de part et d'autre deux mesures égales à la moitié de la largeur extérieure totale du sas. La distance entre les extrémités des consoles est égale à la largeur extérieure du sas. Placer le console de façon à ce que le dessus se trouve à niveau du quai. Dessiner les trous pour les chevilles d'ancrage M16 (non comprises dans la livraison). Installer les consoles protégeant avec les plaques de protection tournées vers l'intérieur du sas (voir Fig. 1).

5. MONTAGE DES PANNEAUX LATERAUX

Les panneaux gauche et droit [16] ont été prétraités partiellement à l'usine. Le côté inférieur est posé sur le niveau de la rampe de chargement (pour les modèles chaussée à 5-10 cm au-dessus de le chaussée) ou sur les consoles protégeant (voir Fig. 6). Les panneaux sont fixés à la façade à au moins 3 positions. Utiliser à cet effet les rondelles plates en aluminium [31].
La position des points de fixation pour le montage de le sas d'étanchéité à la façade est indiquée dans Fig. 4. Les trous des profilés sont appropriés à des boulons ayant un diamètre de 8 mm (voir Fig. 2). Les rideaux sont livrés séparément. Ils peuvent être fixés aux panneaux avant ou après montage du sas sur la façade, au choix (voir Fig. 3 et Fig. 5).

Attention: bien tendre les rideaux pendant le montage.

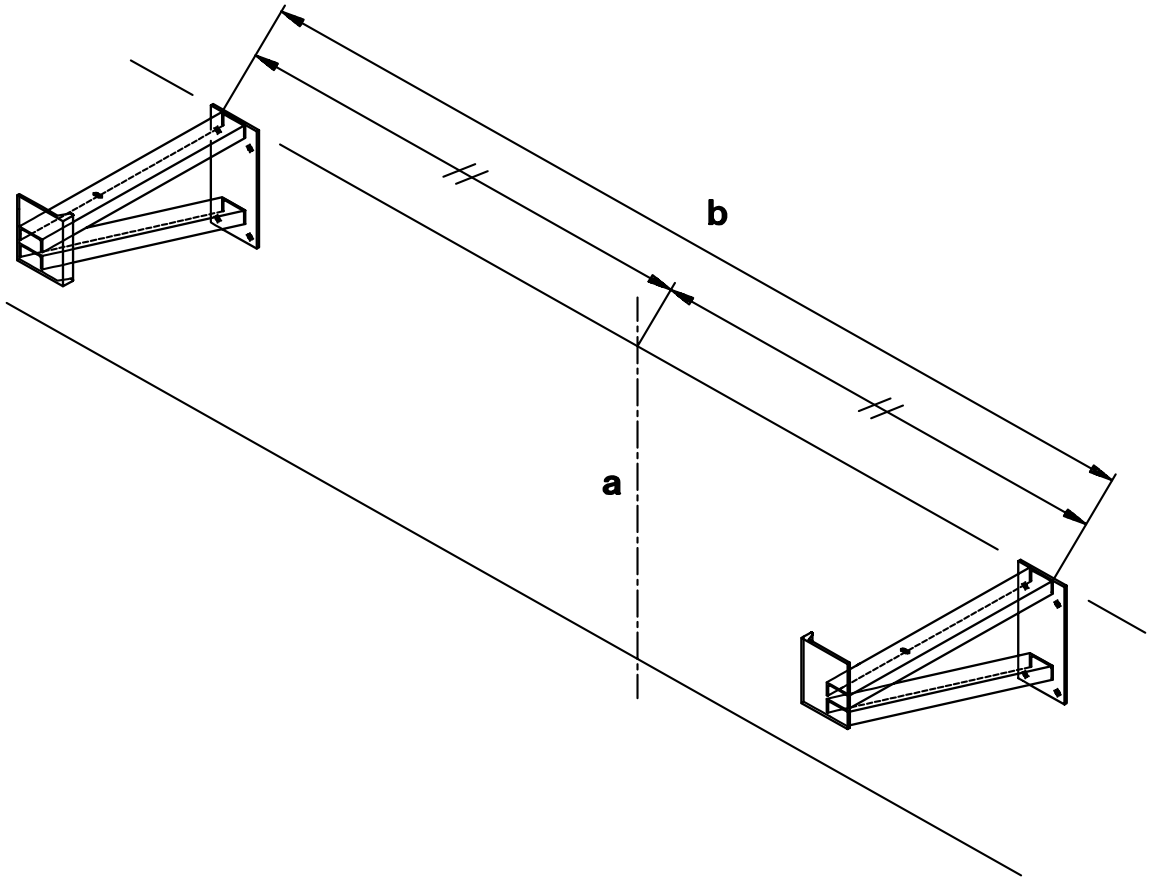

Fig. 1

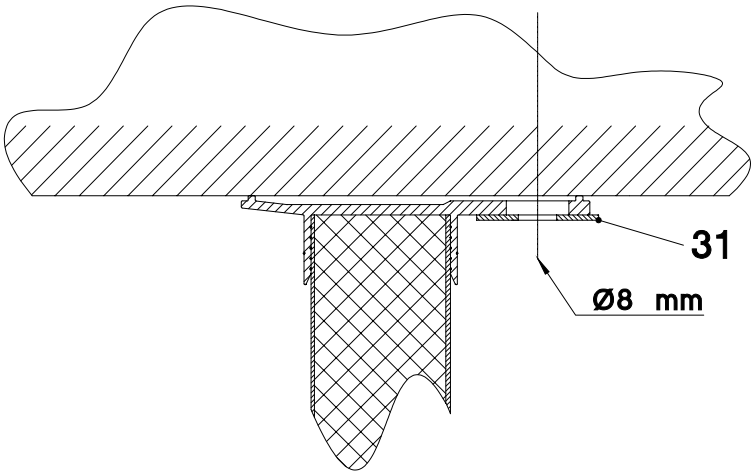

Fig. 2

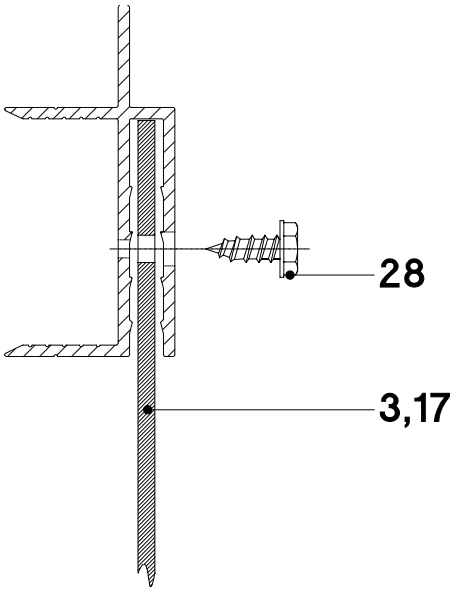

Fig. 3

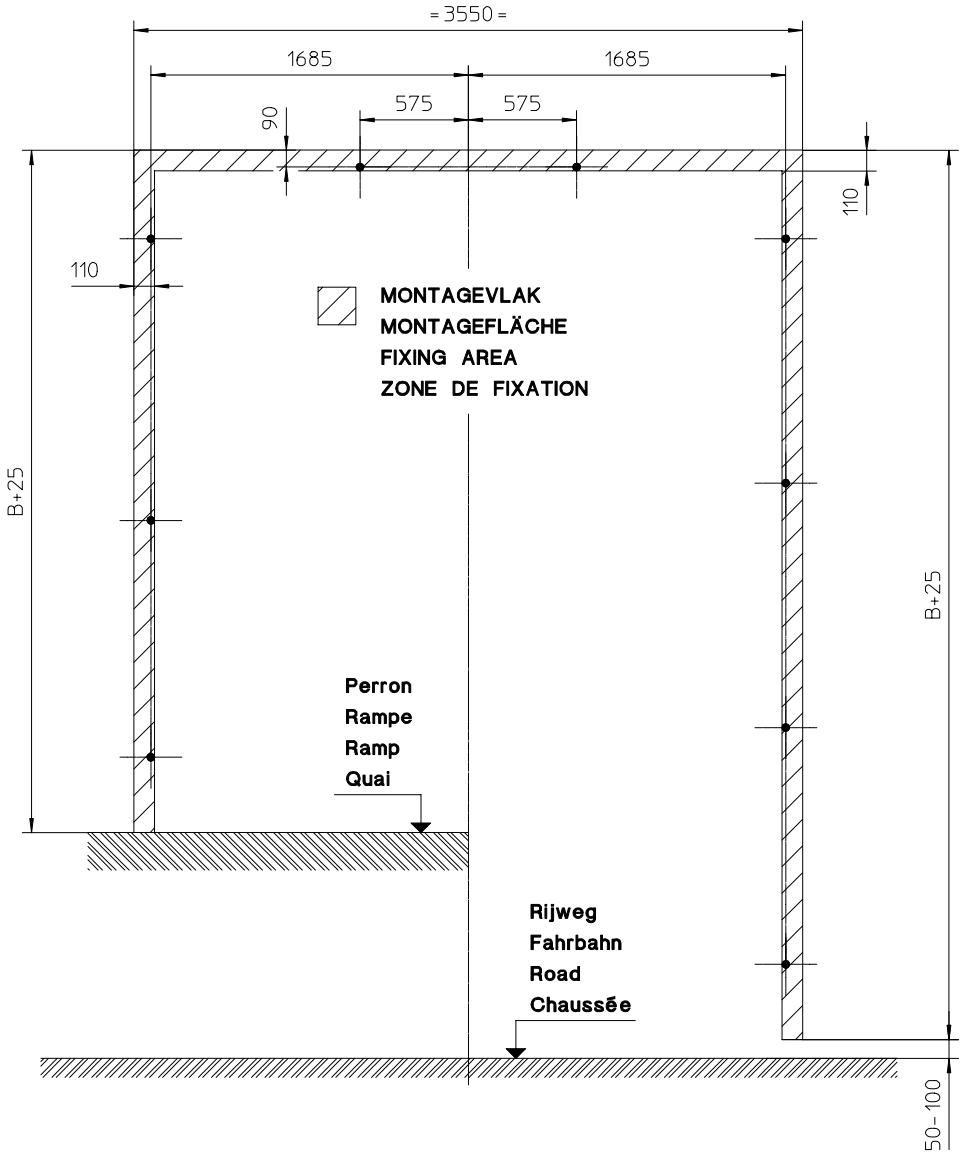

Fig. 4

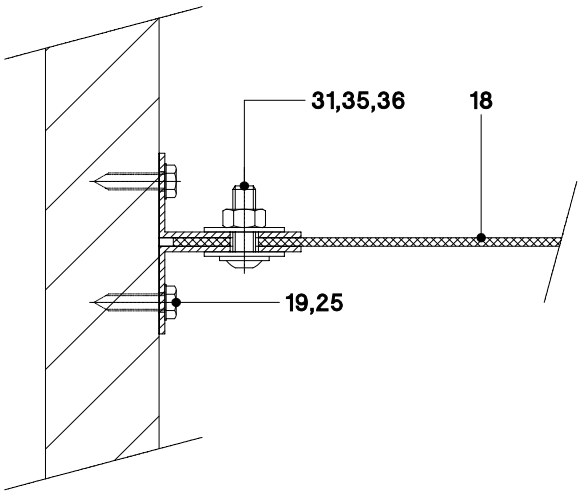

Fig. 5

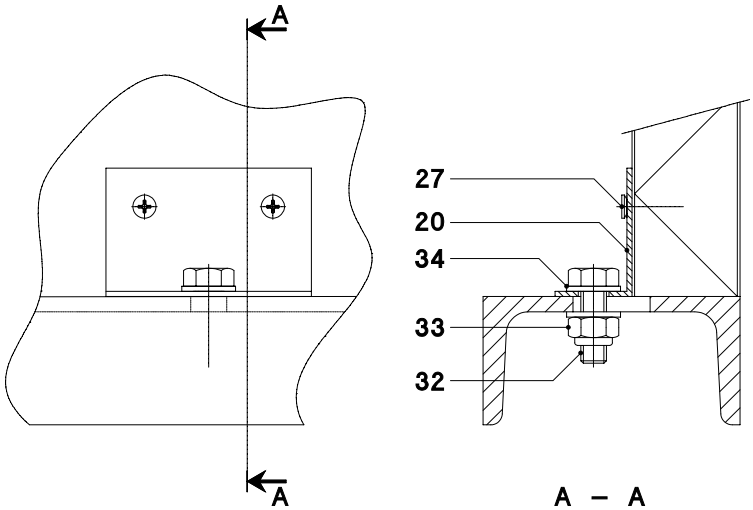

Fig. 6

6. MONTAGE BOVENSECTIE

De ventilator [8] moet met de ventilatorsteun [9] op het bovenpaneel worden gemonteerd. Eerst de steun met het open deel in de buidel op het bovenkussen steken en dan op het sandwichpaneel schroeven (zie Fig. 7). Vervolgens de ventilator aan de steun bevestigen met bouten M8x20 [29] en veerringen [30] en aansluiten volgens het elektrisch schema (zie Fig. 8). Het los meegeleverde bovengordijn [3] kan naar believen òf vooraf op de grond òf na montage van de shelter aan het paneel worden bevestigd (zie Fig. 3).
De complete bovensectie wordt met behulp van bijvoorbeeld een heftruck, met de hoekverbindingsprofielen boven op de zijsecties geplaatst en op 2 plaatsen aan de gevel bevestigd. Gebruik hiervoor de aluminium sluitringen [31]. Links en rechts, van binnenuit 4 schroeven [25] in het hoekverbindingsprofiel draaien. In de openingen die aan de buitenkant zijn ontstaan waar de aluminium profielen op elkaar aansluiten, moeten kunststof doppen [21, 22] aangebracht worden (zie Fig. 9). De opening tussen bovenpaneel en gevel afkitten. Monteer de spankabel [15] zonder voorspanning door middel van knoop.

7. ELEKTRISCHE AANSLUITING

Monteer de motorschakelaar [23] op ± 1,50 meter hoogte, bij voorkeur aan de bestuurderszijde. Sluit de motor- en voedingskabel aan volgens het elektrisch schema (zie Fig. 8). Deze kabels zijn niet bij de levering inbegrepen. De 3-fasen motor kan op 230 of 400 Volt worden aangesloten, (Δ of Y, zie Fig. 8).Let op de juiste draairichting van de motor. Plak de Stertil sticker [24] op de zijkant van de motorschakelaar.

6. MONTAGE DER DECKPLATTE

Der Ventilator [8] ist mit dem Ventilatorhalter [9] an der Deckplatte zu montieren. Zunächst den Halter mit dem offenen Teil im Beutel auf das Oberkissen stecken und daraufhin an die Sandwichplatte schrauben (siehe Fig. 7). Danach der Ventilator mit Schrauben M8x20 [29] und Federringen [30] am Halter befestigen und anschließen gemäß dem Schaltplan (siehe Fig. 8). Die einzeln mitgelieferte Oberschürze [3] kann nach Belieben entweder zuvor am Boden oder nach Montage der Torabdichtung an der Platte befestigt werden (siehe Fig. 3).
Die komplette Deckplatte wird, zum Beispiel mit Hilfe eines Gabelstaplers, mit den Eckverbindungsprofilen auf den Seitenplatten aufgestellt und an 2 Stellen an der Fassade befestigt. Verwende dazu die Aluminium Unterlegscheiben [31]. Links und rechts von innen her 4 Schrauben [25] in das Eckverbindungsprofil drehen. In den Öffnungen, die an der Außenseite entstanden sind wo die Aluminiumprofile einander treffen, sind Kunststoffkappen [21, 22] anzubringen (siehe Fig. 9). Die Öffnung zwischen Deckplatte und Fassade mit Dichtungsmasse verschließen. Spannseil [15] spannungslos montieren mit einem Knoten.

7. ELEKTRISCHER ANSCHLUSS

Montiere den Motorschalter [23] in ± 1,50 Meter Höhe, vorzugsweise an der Fahrerseite. Schließe den Motor- und Speisekabel dem Schaltplan entsprechend an (siehe Fig. 8). Diese Kabel sind bei der Lieferung nicht inbegriffen. Der Dreiphasenmotor kann an 230 oder 400 Volt angeschlossen werden, (Δ oder Y, siehe Fig. 8). Achte auf die richtige Motorlaufrichtung. Klebe den Stertil Aufkleber [24] auf die Seite des Motorschalters.

6. INSTALLING THE UPPER PANEL

The blower [8] must be fitted to the upper panel, with the blower support [9]. First, put the support with the open section in the bag on the upper cushion and then screw it to the sandwich panel (see Fig. 7). Next fasten the blower to the support by means of bolts M8x20 [29] and spring washers [30] and connect the motor according to the electrical diagram (see Fig. 8). The separately supplied head curtain [3] can be fastened to the panel either in advance on the ground or later after installation of the shelter (see Fig. 3).
With the help of equipment such as a forklift, place the complete upper panel with the corner connecting pieces on top of the side panels and fit it to the wall. For this purpose, use aluminum washers [31]. On the left and the right, from the inside insert four screws [25] in the corner connecting piece. In the openings created on the outside where the aluminum sections connect, plastic caps [21, 22] must be placed (see Fig. 9). The gap between upper panel and wall must be sealed off by means of putty. Mount the stretch cable [15] without pretension, using a knot.

7. ELECTRICAL INSTALLATION

Mount the motor switch [23] at a height of about 1,50 meters, preferably on the driver's side. Connect the motor- and the mains cable according to the electrical diagram (see Fig. 8). These cables are not included in the delivery. The 3-phase motor can be connected to 230 or 400 Volts (Δ or Y, see Fig. 8). Take care of correct motor rotation sense. Put the Stertil transfer [24] on the side of the motor switch.

6. MONTAGE DU PANNEAU SUPERIEUR

Le ventilateur [8] doit être monté sur le panneau supérieur au moyen du soutien ventilateur [9]. Passer d'abord la partie ouverte du soutien dans le repli du coussin supérieur; visser ensuite le soutien sur le panneau sandwich (voir Fig. 7). Fixer ensuite le ventilateur au soutien au moyen des boulons M8x20 [29] et des rondelles élastiques [30] et brancher le moteur conformément au schéma électrique (voir Fig. 8). Le rideau supérieur [3] est livré séparément et peut être fixé au panneau avant ou après montage du sas sur la façade, au choix (voir Fig. 3).
Monter le panneau supérieur complet sur les panneaux latéraux, par exemple à l'aide d'un chariot élévateur, au moyen des profilés angulaires de jonction; ensuite il est fixé à la façade à 2 positions. Utiliser à cet effet les rondelles plates en aluminium [31]. Serrer à gauche et droit, de l'intérieur, 4 vis [25] dans la profilé angulaire de jonction. Les ouvertures créés du côté extérieur, à l'endroit où les profilés en alu joignent, doivent être bouchés au moyen de capuchons plastique [21, 22] (voir Fig. 9). Mastiquer l'ouverture entre le panneau supérieur et la façade. Monter le câble à tendre [15] sans pré-tension avec un nœud.

7. INSTALLATION ELECTRIQUE

Monter l'interrupteur moteur [23] à ± 1,50 m de haut, de préférence du côté conducteur. Brancher les câbles du moteur et du réseau conformément au schéma électrique (voir Fig. 8). Cet câbles ne sont pas compris dans la livraison. Le moteur triphasé peut être raccordé en 230 ou 400 Volts (Δ ou Y, voir Fig. 8). Attention au sens de rotation du moteur. Placer l'autocollant Stertil [24] sur le côté de l'interrupteur moteur.

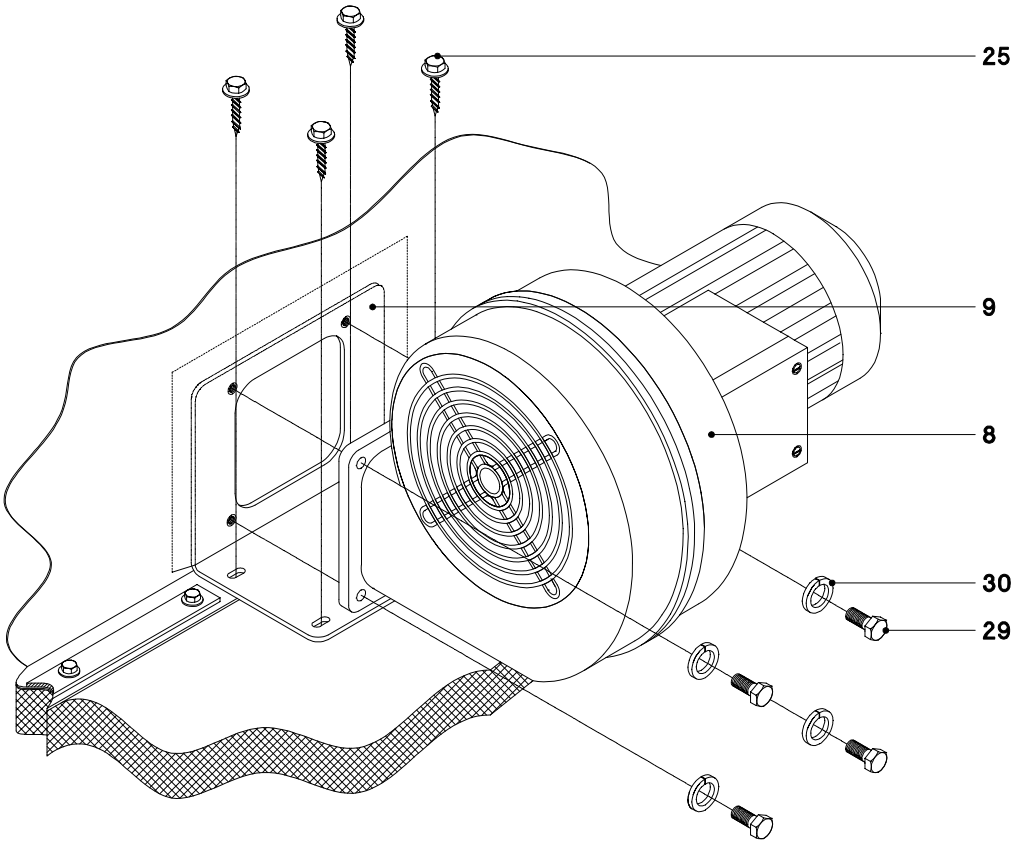
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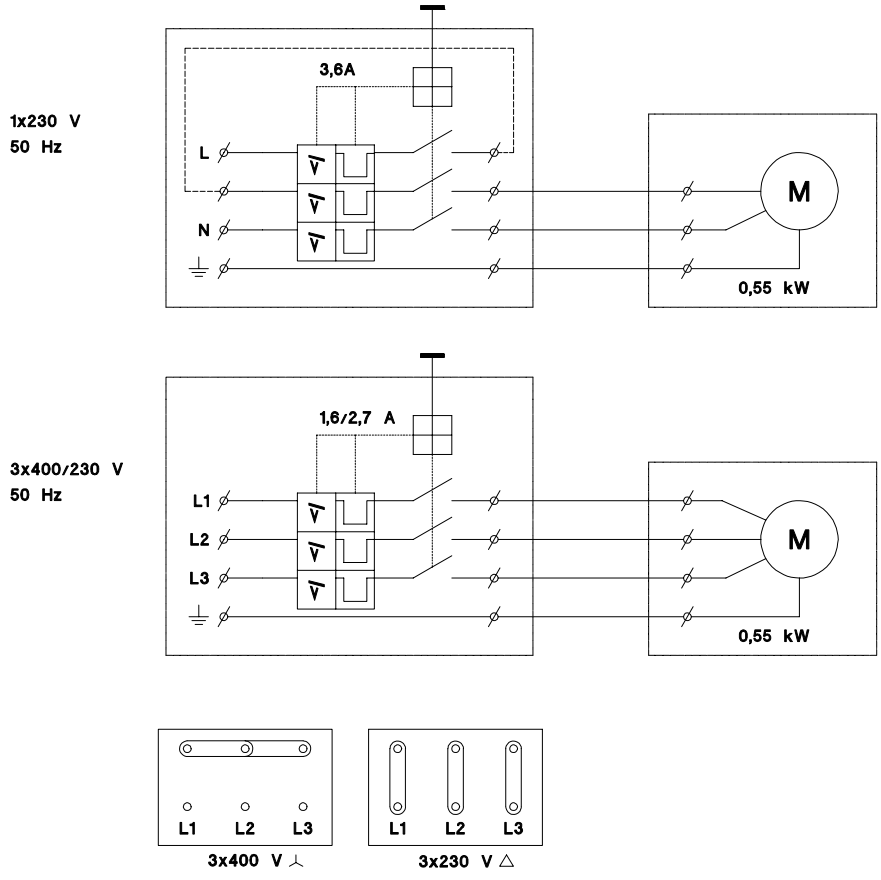
Fig. 7


1x230 V
50 Hz
3,6A
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3x400/230 V
50 Hz
1,6/2,7 A
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L3
M
0,55 kW
L1 L2 L3
3x400 V
L1 L2 L3
3x230 V

Fig. 8

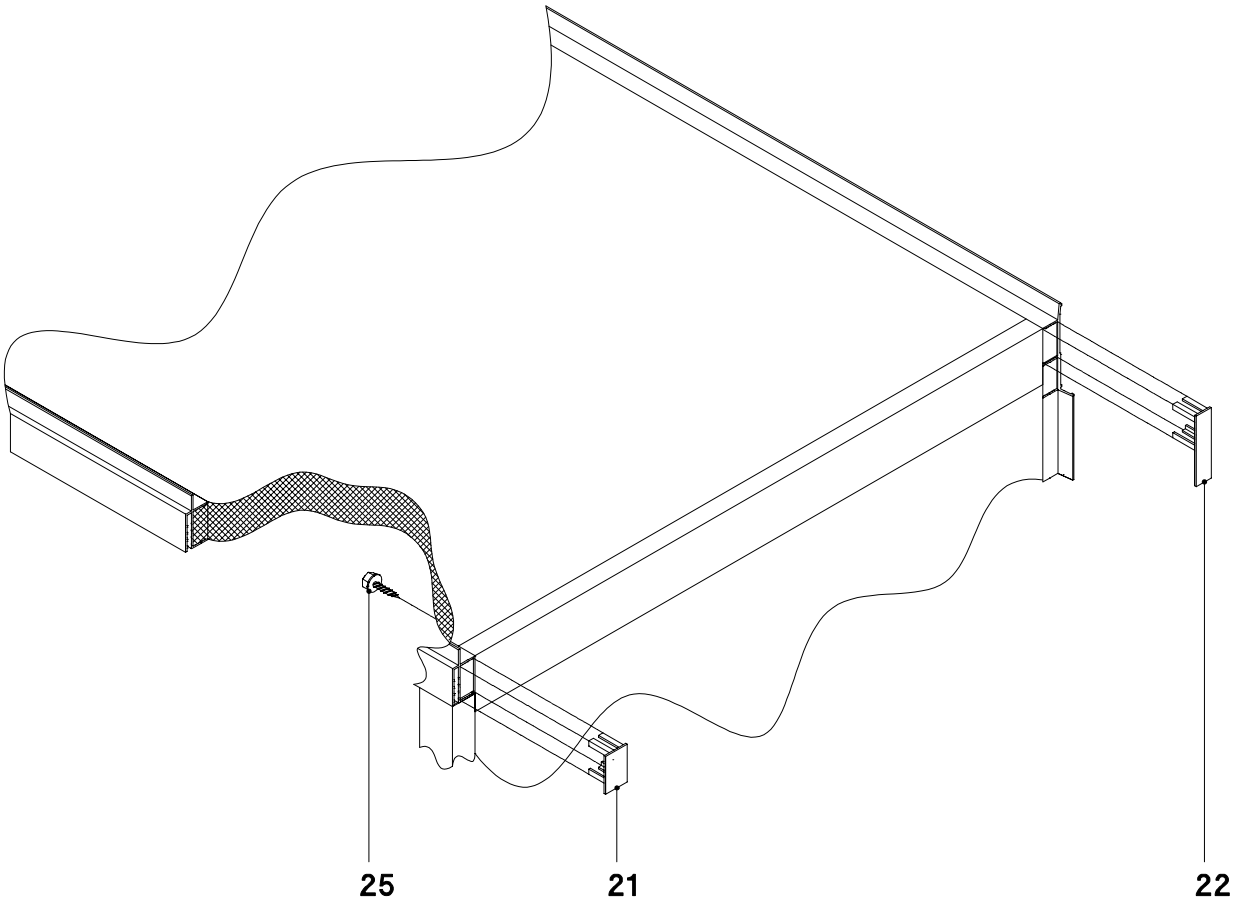


Fig. 9

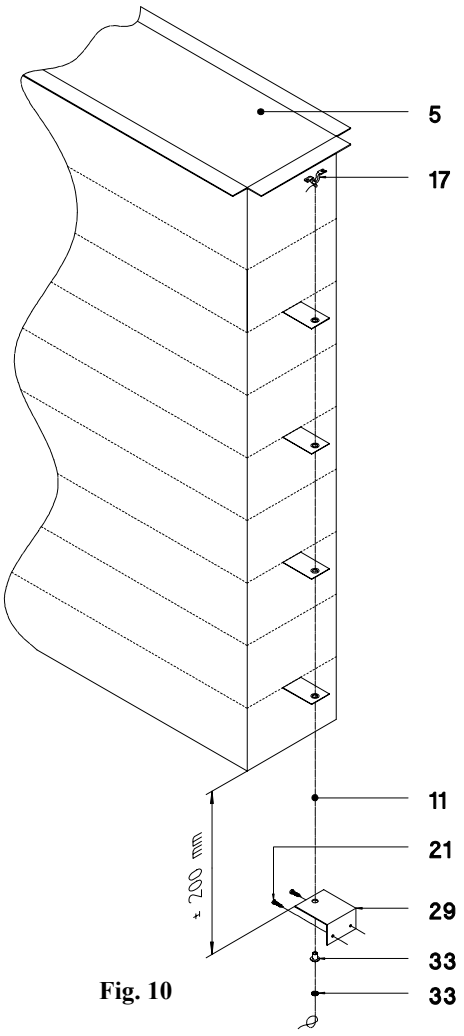


Fig. 10

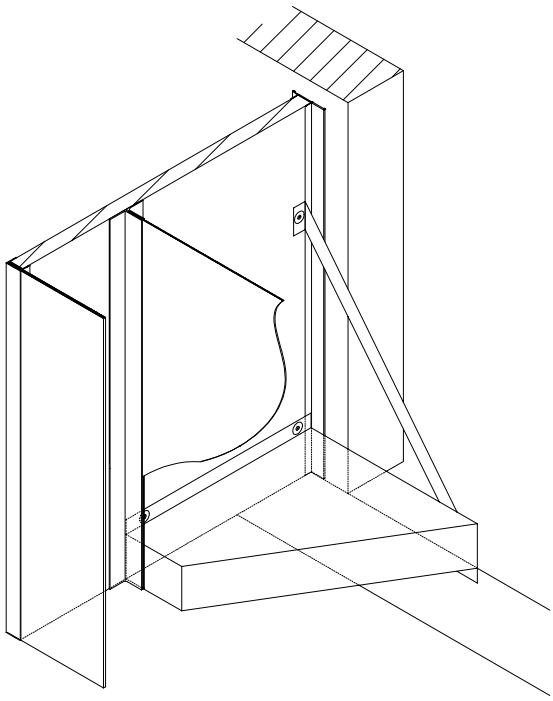


Fig. 11

8. MONTAGE CONTRAGEWICHT

Knoop het contragewicht [4] zo aan de spandraden van het bovenkussen dat het ± 25 cm onder het bovenpaneel hangt als het kussen volledig opgeblazen is. Het moet zonder aan te lopen kunnen bewegen in de mantelbuis [5], die met schroeven [27] aan het rechter zijpaneel bevestigd wordt op ± 75 cm onder het bovenpaneel. Zorg ervoor dat de spandraden niet verdraaid of gekruist zijn en allemaal even strak staan. Als het kussen helemaal opgetrokken is, mag de onderzijde van het contragewicht niet uit de buis steken (zie Fig. 12).

9. MONTAGE BOVENKUSSENGELEIDING

Monteer hoekprofielen [12] als aangegeven in Fig. 10 en Fig. 12. Knoop de touwen [11] aan de beugeltjes [10] op het bovenpaneel en voer ze door de lussen van het bovenkussen en de hoekprofielen. Manchet [14] en ring [13] monteren, strak trekken en vastzetten met een knoop.

10. MONTAGE BOTTOMPADS (OPTIE)

De onderzijde van de bottompad [38] komt op gelijke hoogte met de perronvloer en wordt op de eventueel aanwezige shelterbumper geplaatst. Bevestig de ophangstrook en de schoorstrook met het meegeleverde bevestigingsmateriaal aan het zijpaneel (zie Fig. 11).

11. ONDERHOUD / REPARATIE

Voor onderhoud en reparaties/afstellingen kan een onderhoudscontract worden afgesloten. Raadpleeg uw leverancier/dealer voor meer informatie. Gebruik alleen originele Stertil onderdelen.

8. MONTAGE DES GEGENGEWICHTS

Verknote das Gegengewicht [4] so mit den Spanndrähten des Oberkissens, dass es ± 25 cm unter der Deckplatte hangt wenn das Kissen ganz aufgeblasen ist. Es muss sich, ohne anzulaufen, bewegen können im Mantelrohr [5], das mit Schrauben [27] an der rechten Seitenplatte befestigt wird auf ± 75 cm unter der Deckplatte. Achte darauf dass die Spanndrähte nicht verdreht oder gekreuzt sind und alle gleich gespannt sind. Wenn das Kissen ganz hochgezogen ist, darf das Gegengewicht nicht aus dem Rohr herunterragen (siehe Fig. 12).

9. MONTAGE DER OBENKISSENFÜHRUNG

Eckprofile [12] montieren wie in Fig. 10 und Fig. 12. Knüpfe die Seile [11] an den Befestigungsbügel [10] auf der Deckplatte und führe sie durch die Laschen des Obenkissens und die Eckprofile. Hülse [14] und Ringe [13] anbringen, straf ziehen und festsetzen mit einem Knoten.

10. MONTAGE UNTERKISSEN (WAHLWEISE)

Die untere Seite des Unterkissens [38] wird auf gleiche Höhe mit dem Lagerhallenboden und wird auf dem eventuell anwesende Schutzpuffer aufgestellt. Befestige den Aufhangstreifen an der Seitenplatte mit das mitgelieferte Befestigungsmaterial (siehe Fig. 11).

11. WARTUNG / REPARATUR

Für Wartung und Reparatur/Einstellungsarbeiten kann einen Wartungsvertrag abgeschlossen werden. Bitte befragen Sie ihren Lieferant/Händler für weitere Auskünfte. Nur originale Steril Ersatzteile verwenden.

8. FITTING THE COUNTERWEIGHT

Tie the counterweight [4] to the tensioning wires of the upper cushion in such a way that it hangs ± 25 cm below the upper panel when the cushion is fully inflated. It must be able to move freely without touching the jacket pipe [5], which must be fitted to the right side panel by means of screws [27] at ± 75 cm below the upper panel. Take care that the tensioning wires are not twisted or crossed and are all equally tensioned. When the cushion has been fully retracted, the bottom of the counterweight may not project beyond the pipe (see Fig. 12).

9. FITTING THE HEAD CUSHION GUIDES

Install the angular brackets [12] as shown in Fig. 10 and Fig. 12. Tie the ropes [11] to the brackets [10] on the upper panel and lead them through the straps of the cussion and through the angular brackets. Fit the sleeve [14] and ring [13], tighten the rope and fix it with a knot.

10. FITTING THE BOTTOM PADS (OPTION)

The bottom side of the bottom pad [38] is positioned on dock floor height and is placed on the eventual present shelterbumper. Fix the suspension strips to the side panel with the supplied fixing material (see Fig. 11).

11. MAINTENANCE / REPAIR

For maintenance and repair/adjustments a maintenance contract can be concluded . Please contact your supplier/dealer for more information. Only use genuine Stertil parts.

8. MONTAGE DU CONTREPOIDS

Accroche le contrepoids [4] aux tendeurs du coussin supérieur de façon à ce qu'il est suspendu à ± 25 cm du panneau supérieur lorsque le coussin est entièrement gonflé. Le contrepoids doit pouvoir remuer librement à l'intérieur du tube de conduite [5], qui doit être fixé à l'aide de vis [27] au panneau latéral droit à ± 75 cm sous panneau supérieur. Prendre soin que les tendeurs ne sont pas tordu ou croisé et tous sont tendu également. Quand le coussin supérieure est entièrement rétracté, le contrepoids ne doit pas déborder le bas du tube (voir Fig. 12).

9. MONTAGE DU GUIDAGE COUSSIN SUPERIEUR

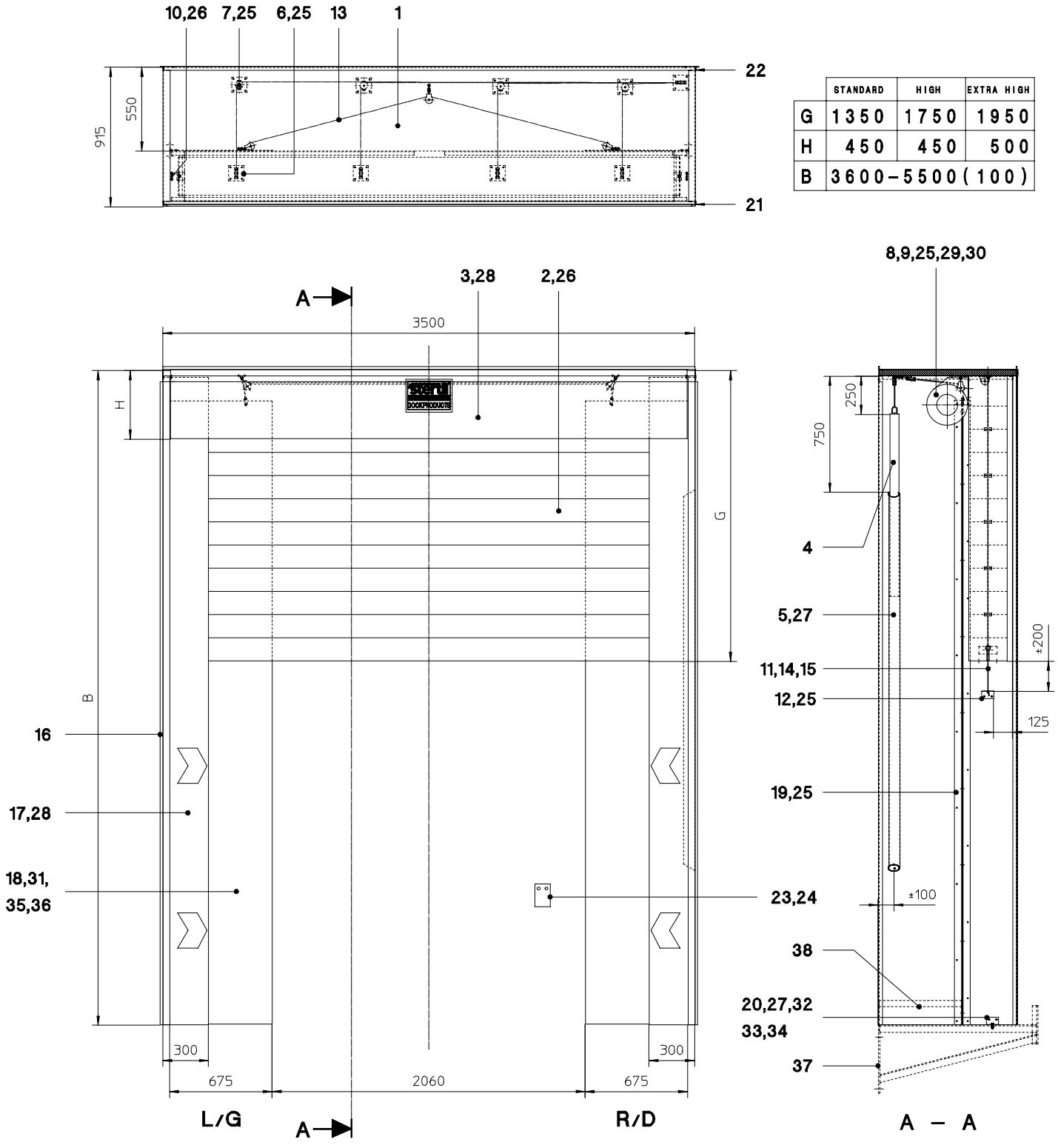
Installer les supports angulaires [12] comme Fig. 10 et Fig. 12. Fixer les cordes [11] à les oeils de fixation [10] au panel supérieur. Faire passer le corde à travers les ganses de cousin et les supports angulaires. Monter la manchon [14] et la rondelle [13], bien tendre le corde et fixer le avec un nœud.

10. MONTAGE DU COUSSINS INFERIEUR (OPTION)

Le dessous du coussin inférieur [38] est placé à niveau de quai et est posé sur le console protégeant éventuellement présent. Fixer les bandes de suspension sur le panneau latéral avec le matériel de fixation fourni (voir Fig. 11).

11. ENTRETIEN / REPARATION

Pour faire l'entretien et des réparations/ajustements un contrat d'entretien peut être conclu. S'il vous plait consulter votre fournisseur/détaillant pour plus d'information. Utiliser seulement des pièces originales Stertil.



	STANDARD	HIGH	EXTRA HIGH
G	1350	1750	1950
H	450	450	500
B	3600–5500 (100)		

Fig. 12

12. ONDERDELENLIJST **12. ERSATZTEILLISTE** **12. SPARE PARTS LIST** **12. LISTE PIÈCES**

Pos	Omschrijving, Beschreibung, Description, Description	Code, Kode, Code, Code	Aantal, Zahl, numb, Nomb	WIS 300 Standard	WIS 300 High	WIS 300 Extra High
1	Bovensectie, Obensektion, Top section, Section		1	15.350.500	15.351.500	15.352.500
2	Bovenkussen. Oberkissen, Head cushion, Coussin		1	15.350.520	15.351.520	15.352.520
3	Bovengordijn, Oberschürzen, Top curtain, Rideau		1	15.300.020	15.300.020	15.380.020
4	Contragewicht, Gegengewicht, Counterweight,		1	15.3000.070	15.300.070	15.380.070
5	Mantelbuis, Mantelrohr, Jacket pipe, Tube de conduite	PE	1	15.300.072	15.300.072	15.380.072
6	Katrol haaks, Rolle quer, Pulley square, Poulie d'équerre		11	15.300.330		
7	Katrol parallel, Rolle parallel, Pulley parallel, Poulie parallèle		4	15.300.335		
8	Ventilator, Ventilator, Blower, Ventilateur	3x 230/400 V	1	15.300.065		
8a	*Ventilator, Ventilator, Blower, Ventilateur*	*1x 230 V*	-	*15.300.075*		
9	Ventilatorsteun, Ventilatorhalter, Blower support, Soutien ventilateur		1	15.300.570		
10	Bevestigingsbeugel, Befestigungsbügel, Fixation eye, Oeil de fixation	RVS, Rostfrei, Stainless, Inox	4	15.300.331		
11	Geleidedraad, Führungsseil, Guidance rope, Corde guidance	L=2,4 m	2	97.899.907		
12	Hoekprofiel, Eckstuck, Angle, corniere		2	15.300.519		
13	Manchet, Hülse, Sleeve, Manchon	Nylon	2	1020.46.05.58		
14	Ring, Ringe, Ring, Anneau	Nylon	2	66.201.025		
15	Spankabelset, Spannseilsatz, Stretch cable ass'y, Jeu câble à tendre		1	15.350.050		
16	Zijsectie, Seitensektion, Side section, Section latéral	L/R, G/D	1	*		
17	Zijgordijn, Seitenschürzen, Side curtain, Rideau latéral	L/R, G/D	1	*		
18	Gordijn, Plane, Curtain, Rideau		2	*		
19	Montageprofiel, Montageprofil, Mounting profile, Profilé de montage	Al	4	*		
20	Bevestigingsprofiel, Befestigungsprofil, Fixing profile, Profilé de fixation	Al	2	15.300.006		
21	Kunststof dop, Kunststoffkappe, Plastic cap, Capuchon plastique	PP	2	15.300.009		
22	Kunststof dop, Kunststoffkappe, Plastic cap, Capuchon plastique	PP	2	15.300.008		
23	Motorschakelaar, Motorschalter, Motor switch, Interrupteur moteur	3x 400V	1	15.300.030		
23a	*Motorschakelaar, Motorschalter, Motor switch, Interrupteur moteur*	*3x 230V / 1x 230V*	-	*15.300.040*		
24	Sticker, Aufkleber, Transfer, Autocollant	Stertil		15.200.006		
25	Schroef, Schraube, Screw, Vis	6,3x25	*	65.038.002		
26	Schroef, Schraube, Screw, Vis	4,8x13 DIN7976C	*	65.045.015		
27	Schroef, Schraube, Screw, Vis	4,8x19 DIN7982CH	6	65.036.262		
28	Schroef, Schraube, Screw, Vis	4,8x32 DIN7976C	*	65.045.010		
29	Bout, Schraube, Bolt, Boulon	M8x20	4	1035.31.05.29		
30	Veerring, Federringe, Spring lock washer, Rondelle élastique	M8	4	65.058.024		
31	Sluitring, Ringe, Washer, Anneau	35x11x1,5 Al	*	65.655.713		
32	Bout, Schraube, Bolt, Boulon	M10x30	2	65.003.407		
33	Borgmoer, Mutter, Nut, Écrou	M10	2	65.051.034		
34	Sluitring, Unterlegscheiben, Washer, Rondelle plat	M10	4	65.055.019		
35	Bout, Schraube, Bolt, Boulon	M8x25 A2	*	65.725.004		
36	Borgmoer, Mutter, Nut, Écrou	M8 A2	*	65.750.132		
37	*Shelterbumper, Schutzpuffer, Protective bracket, Console protégeant*	*L/R, G/D*	*1*	*9-A3-275*		
38	*Bottompad, Unterkissen, Bottom pad, Coussin inférieur*	*L/R, G/D*	*1*	*15350060/065*		

* Afhankelijk van maat B / Bij bestelling maat B opgeven; *Optie*
* Depends on dimension B / Specify dimension B when ordering; *Option*
* Maß B abhängig / Bei Bestellung Maß B spezifizieren; *Wahlweise*
* Dépendant de dimension B / Spécifier dimension B quand commander; *Option*

DOCKPRODUCTS

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