

# *Ellickson Electro Hydraulic Dock Leveller*



*Custom Made Quality Solutions.*

## Ellickson Doors Dock levellers



### The most accurate solution.

Simple, quick and functional. Without doubt, the **Ellickson Doors Dock Leveller** is the perfect solution for any loading bay. Its hydraulic tilting mechanism and folding lip enables the dock leveller to cover the gap and height between the loading bay and the truck, allowing it to rest firmly on the loading bay.

The **Ellickson Doors Dock Leveller** has three parts:

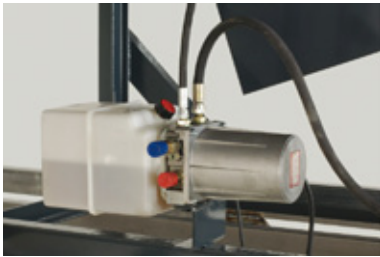
- A **platform** with an upper sheet of tear plate with thickness of 6/8 mm and a set of laminated profiles and protective side panels.
- A **lip** made of tear plate sheet with a thickness of 13/15 mm. The lip is folded and milled at the end, to fit onto the truck and to ease the passage of the forklifts.
- And the **inferior structure** formed by laminated profiles upon which the platform and hydraulic assembly are installed.

**Safety** is an essential requirement for any professional. For this reason, all **Ellickson Doors Dock Levellers** have diverse safety systems:

- An **emergency stop** activated by a section switch or zero voltage.
- An **anti-fall safety** valve inside the hydraulic cylinder.
- **Fixed and mobile side panels** that serve as a foot guard.
- A platform with an upper surface **anti-fall tear plate**.
- **Safety signals** in form of stickers on moving parts.
- **Safety bar** to prevent the leveller from closing during maintenance work.



## Dock levellers



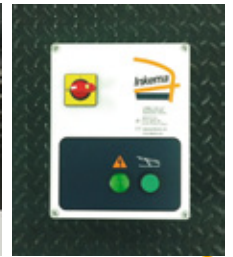
Hydraulic system.



Self-cleaning reinforced hinges.



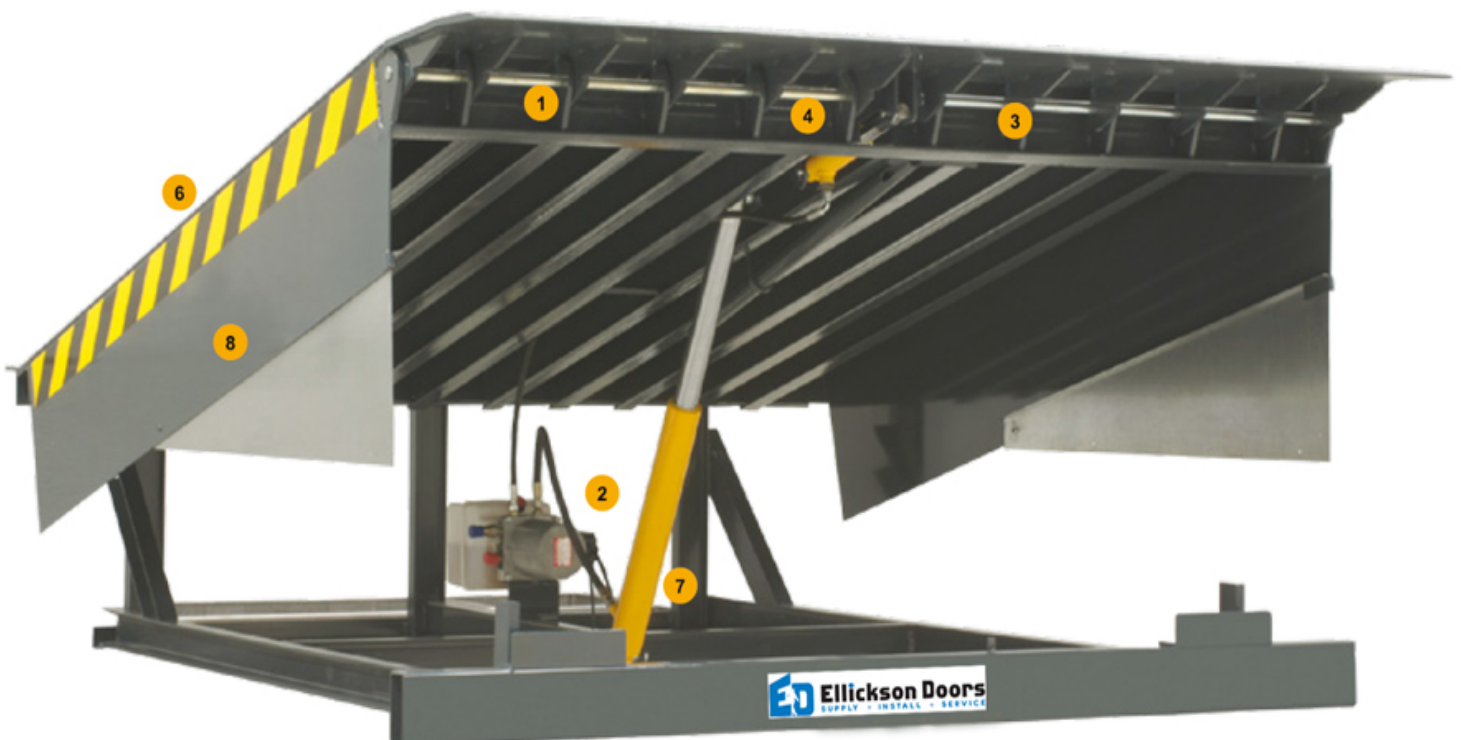
Foot guard panels and safety stickers.



Control panel.

5

- 1 A construction system with **self-cleaning** flat hinges made with ST-52 laser-cut steel for perfect alignment and resistance. In addition, it is designed to prevent the moving parts of the leveller from maladjustment due to grime.
- 2 The **hydraulic equipment** comprises: a 1.0 CV electric motor, hydraulic pump with a flow rate of 5 l/m and a 7 litre tank with an oil level viewer, safety electro valve, elevation cylinder with a Ø50 mm rod, lip cylinder with a Ø30 mm rod and hydraulic hoses.
- 3 All the **shafts** are protected from corrosion by a passivized, zinc electrolytic coating.
- 4 **Centring system** between lip and bay with nylon dividers to ensure that the lip is always in the correct working position.
- 5 The **control panel** has been designed to operate the **Ellickson Doors Dock Leveller**.
- 6 One characteristic feature of the **Ellickson Doors Dock Leveller** is that when lying on the truck base, it adapts to the raising and lowering of the truck caused by loading and unloading, thanks to its lateral inclination.
- 7 The **anti-fall safety valve** in the hydraulic cylinder is designed so that it can be blocked, if the truck unexpectedly moves off, preventing the bay and any other element on its surface (operators, forklifts, etc.) from falling.
- 8 **All the components** and the moving parts, lip and inferior structure are painted separately with an anti-corrosive primer followed by a coat of high-quality paint, thus ensuring a double 1+1 layer which guarantees 200% protective coating.



## 03 – EC Declaration



### DECLARATION OF CONFORMITY

**Ellickson Doors Ltd** declares under its own responsibility that the electro hydraulic dock levellers:

Make: Ellickson Doors Ltd  
Model: ELD 2000mm Wide x 2500mm Long with a capacity of **6000 Kg**  
Year of manufacture: 20\*\*.

Are compliant with the essential requirements of the following directives:

- 2006 / 42 / EC** Machine safety.
- 2004 / 108 / EC** Electromagnetic compatibility.
- 2006 / 95 / EC** Low voltage.

And have been calculated and designed pursuant to the following European standards:

- EN 1398:1998** Dock levellers.
- EN 292-2:1991** Machine safety. Basic concepts. General design principles.
- EN 61000-6-2:2001** Electromagnetic compatibility. Basic immunity concepts for industrial environments.
- EN 61000-6-4:2001** Electromagnetic compatibility. Basic emissions concepts in industrial environments.
- EN 60204-1:1997** Machine safety – Electrical equipment – General provisions.

(\*) In the event that the capacity is other than 6000kg, the respective EC certificate will be attached to this manual.

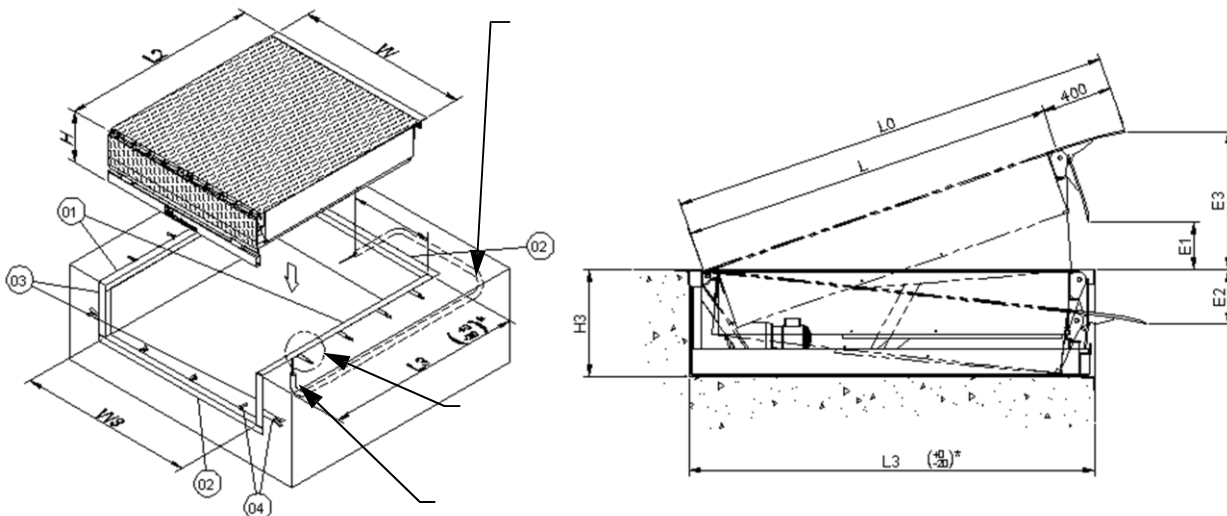
## 02 – Technical specifications

Ramp designed pursuant to the **UNE-EN 1398** standard

Calculated for a maximum nominal load of: (See its plate characteristics).

### 02.01 – Usage conditions and limits

- Nominal load capacity 6t
- Motor electrical voltage 230/400 volt. 3F 50Hz
- Motor electrical power 0.75 Kw.
- Electrical output voltage to emergency electro valve 24 volt. AC.
- Max. operating pressure of the hydraulic circuit 140 kg/cm<sup>2</sup> (Bar)
- Operating temperature range (-10°C +40°C)
- Noise level generated <70db
- Max. transit speed 10Km/h
- Max. operating gradient 12.5% (7°)
- Do not work with the machine while the emergency stop is activated or if the power supply has been cut off.



### 02.02 –EDL Pit Type Installation.

Recess tube Ø50mm. for electrical conductors as far as the electrical panel.

Allow for a cable guide inside the tube.

Position electrical cables 300 mm from the door opening

Note: Metal profile joints with continuous cord and a neck of 6mm

Floor of at least H250 concrete with a thickness greater than or equal to 200mm.

#### PIT FRAME

01	02	03	04
2 un.	2 un.	(1+1) Un. **	15 un. **
LPN-80.8 x (L3 – 10)	LPN-80.8 x (W3 + 160)	LPN-80.8 x H3	#3x40x200



The diagonals of the pit must be equal  $\pm 5$  mm

## 02.04 – Platform

- Superior tear plate (thickness 6/8mm.), quality ST-37.
- 10 cold rolled profiles
- 2 cold rolled lateral profiles (non-shear safety panels).
- Front hinge unit (lip joint).
- Rear hinge unit (platform joint).
- Safety bar for executing maintenance work.

## 02.05 – Lip

- Tear plate (thickness 13/15mm.), quality ST-37.
- Press stroke 5° 150mm. from the end (for perfect adjustment to the truck).
- Milled at the end (to ease the passage of the fork-lift trucks).

## 02.06 – Bedplate

- Rear assembly (head) formed by rolled profiles.
- Front assembly with profiles for supporting the lip.
- Side profiles joining the front assembly with the rear assembly.
- The movements of the platform and lip are executed through an electro hydraulic unit.

## 02.07 – Hydraulic power unit

- 1.0CV electric motor. 0'75kw 230/400Volt 3F 50Hz.
- Hydraulic pump with flowrate of 5 litres/minute.
- 7-litre tank with oil level viewer.
- Logicblock where all the elements are incorporated (including 24V electro valve).
- Ø50mm. cylinder with rod for raising platform and parachute safety valve.
- 1 Ø30mm. cylinder with rod for lip raising.
- Leads, connection fittings, etc...

The machine may be supplied with any of the following hydraulic unit versions, both are identical and perform the same function.

### 02.07.01 – Hydraulic unit version 01

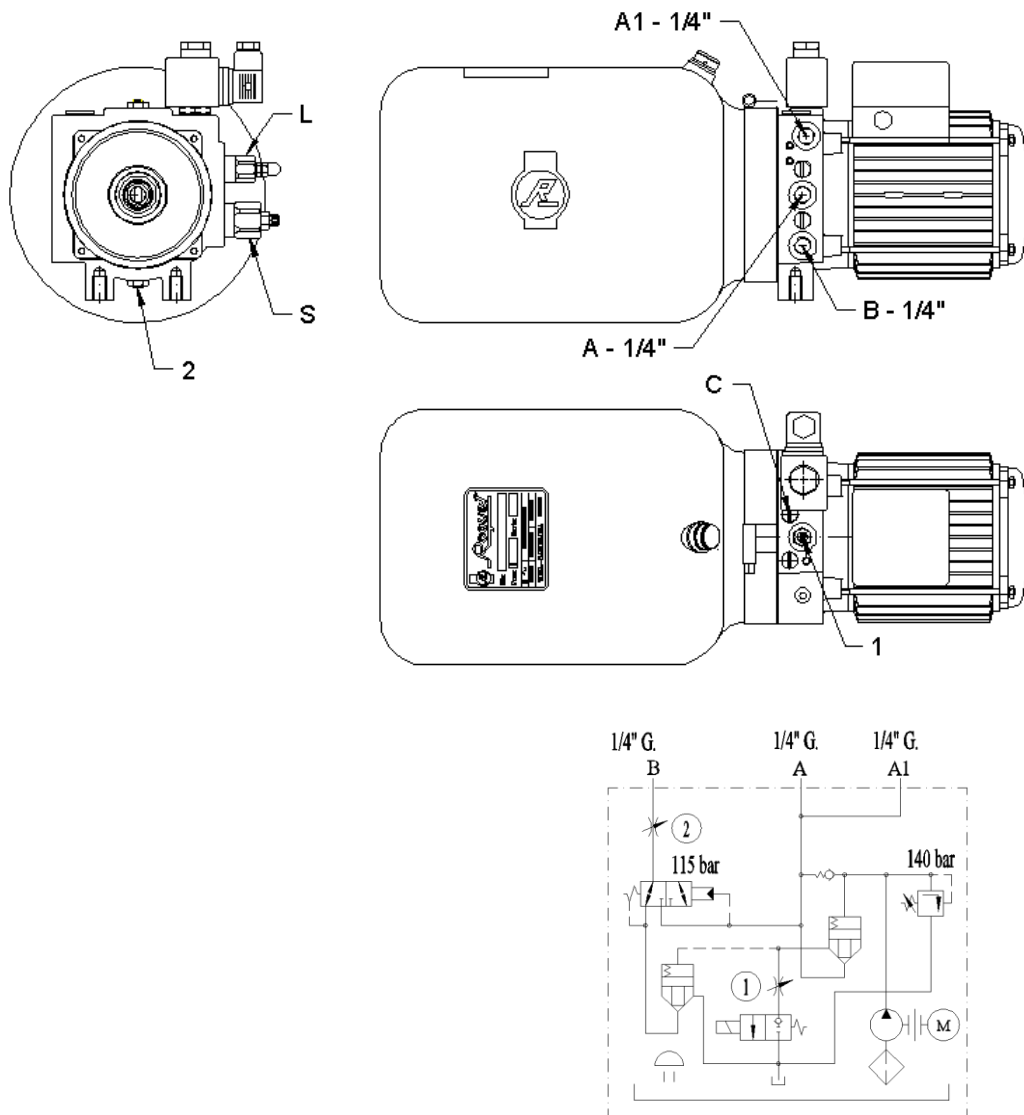
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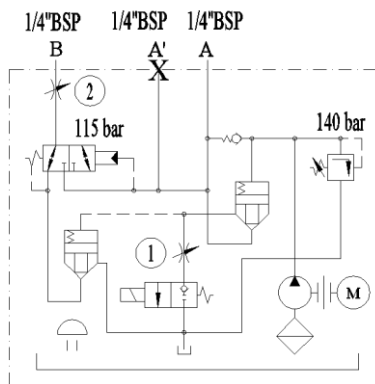
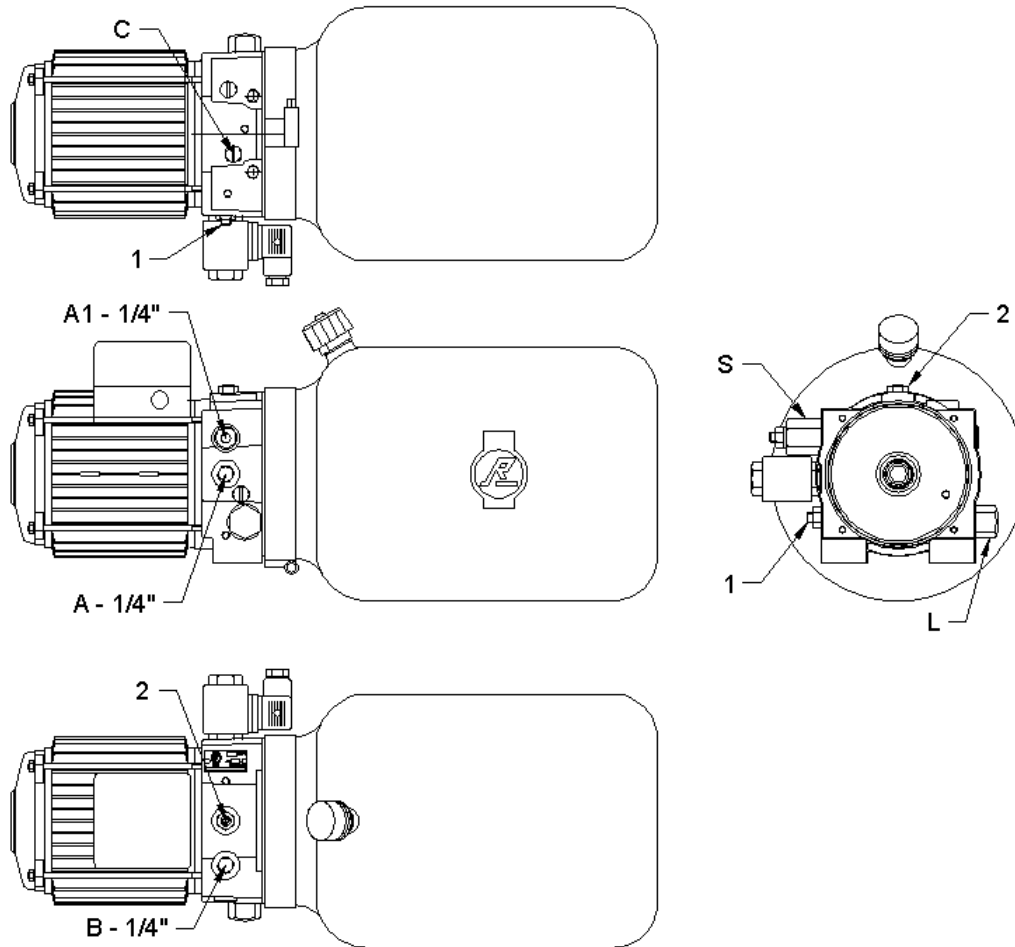
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- 1 Leveller regulation
- 2 Lip regulation A
- Lift cylinder A1
- Lift cylinder B
- C Screw and spring
- L Limit valve
- S Sequence valve

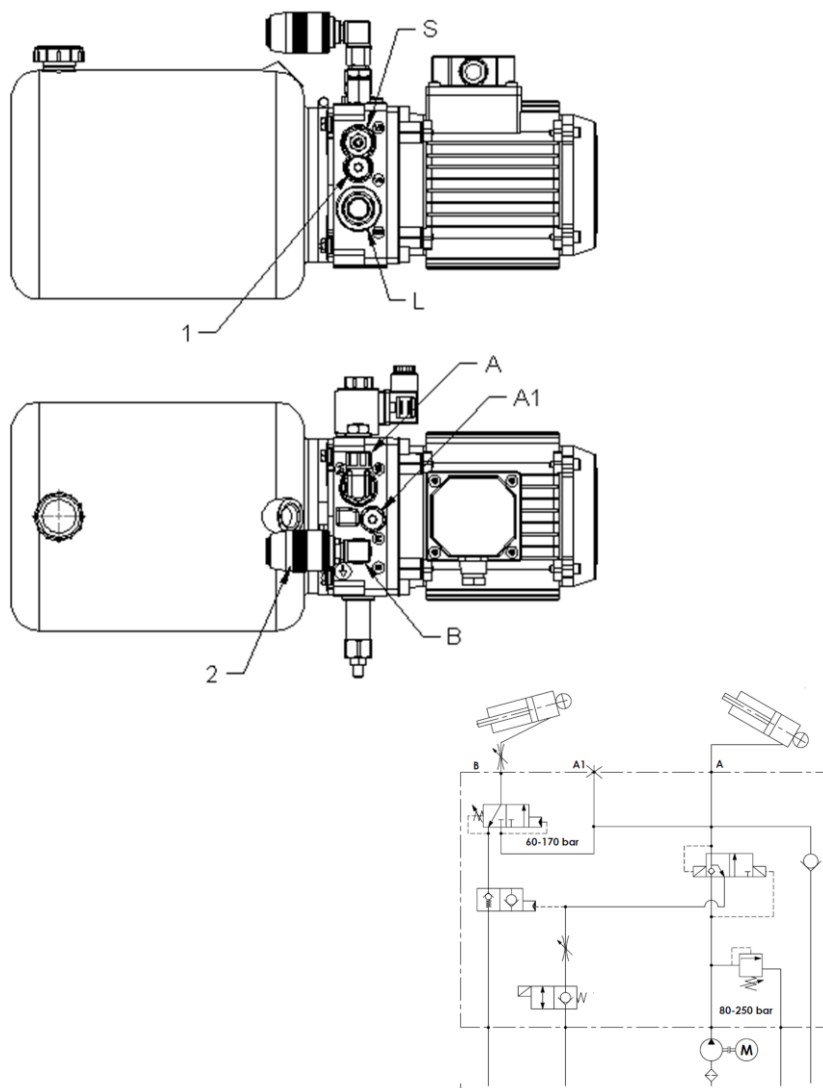
## 02.07.02 – Hydraulic unit version 03



- 1 Leveller regulation
- 2 Lip regulation A
- Lift cylinder A1 Lift cylinder
- B Lip cylinder
- C Screw and spring
- L Limit valve
- S Sequence valve

## 02.07.03 – Hydraulic unit version 05





## 02.08 – Electrical control panel

(See electrical control panel connections, page 18)

- Transformer for manoeuvring circuit at 24Volt. AC.
- Green light indicating ON.
- Emergency stop/section switch.
- Thermal switch.
- Fuses.
- Terminal block.
- Box 190X\*240Y\*105Z (IP-55)

## 02.09 – Safety systems

- Emergency and/or power failure electro valve
- Emergency stop/section switch.
- Elevation cylinder safety valve
- Toe guards
- Non-slip surface

## 02.10.05 – Maintenance plan

	Daily	Every month	6 months	1 year	2 years
General state of the machine	◆	◆	◆	◆	◆
Greasing			◆	◆	◆
Hydraulic oil level			◆	◆	◆
Oil leak inspection			◆	◆	◆
Weld inspection				◆	◆
Axle inspection				◆	◆
Inspection of lateral adhesive bands				◆	◆
Paint inspection				◆	◆
Flexible conduits and connection				◆	◆
Manoeuvring speed				◆	◆
Check parachute valve					◆
Change hydraulic oil					◆

## 02.11 – Instructions for use

### 02.11.01 – Before use

Make a visual check to ensure the leveller is in perfect conditions of use. Centre the vehicle against the rubber stops of the leveller.

Check that the vehicle is completely immobilised and blocked. (Switch off the engine, apply the handbrake and place chocks on the wheels).

To raise the leveller to the load surface level, connect the manoeuvring circuit by turning the red section switch. The green pilot light will come on.

To raise the leveller and open the lip, press the elevation button without releasing it.

If you stop pressing the button, the leveller will descend at a controlled speed, due to its own weight.

Raise the leveller until the lip starts to open. Once the lip is open completely, release the elevation button. Let the leveller descend at a steady speed until it rests on the load surface of the truck.



Check that the whole width of the lip is resting on the load surface of the vehicle in an area NO smaller than 130mm.

## 02.11.02 – During use

The dock leveller will merely rest on the load surface (truck). The hydraulic cylinders **MUST NOT** be blocked to allow the leveller to adapt to the height of the load surface (which will vary, depending on the variation in the truck suspension).

Check that the emergency stop is **NOT** activated and that the leveller is supplied with power.

### **VERY IMPORTANT:**

It is strictly prohibited to perform loading and unloading operations with the emergency stop activated, or while the leveller is not supplied with power.

Never exceed the maximum nominal load. (See its plate characteristics).

Ensure that the leveller continues to rest on the load surface during transit. If this is not the case, press the emergency stop button immediately.

Fork-lift trucks must be driven with caution. The maximum transit speed calculated for the leveller is 10 km/hour.

## 02.11.03 – After use.

Raise the leveller and close the lip before the truck leaves the loading position. To do this, press the elevation button and raise the leveller just enough for it to clear the truck.

Release the button and wait for the leveller to descend at a steady speed and rest on the closed lip on the front of the bedplate.

## 02.11.04 – Precautions during use.

Check that the emergency stop is not activated.

Never exceed the maximum nominal load. (See its plate characteristics). Before each manoeuvre check that no-one is in the working area.

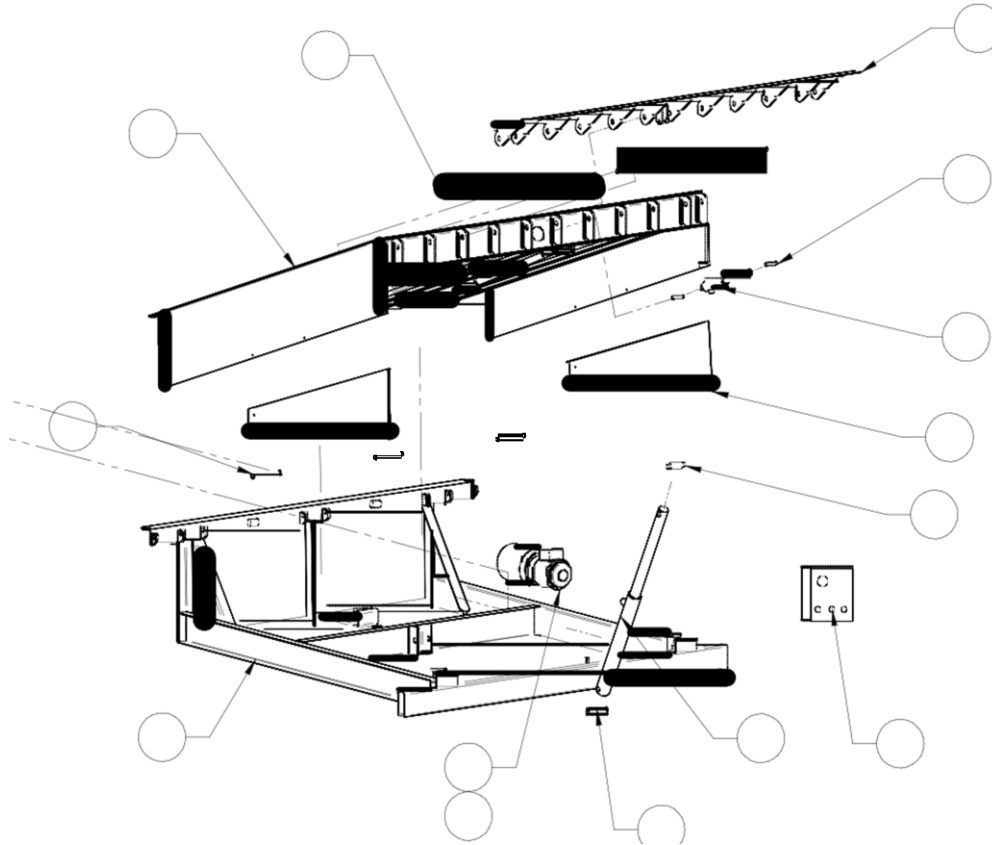
Check that the leveller is resting properly on the load surface of the truck, with the entire lip coupled to a surface of approximately 130 mm along its whole width.

The hydraulic unit has the sole function of making the necessary movements to manipulate only the dock leveller.

It must never be used to support and/or lift loads.

Before raising the device ensure that its movement is not blocked by other equipment. (Doors, etc... )  
After completing the operation check that the lip is properly inserted in the closed leveller position.

## 04 – Machine units and parts



Pos.	Part code	Description
10	20.0002 ... (*)	6t RH bedplate (*)
20	20.0001 ... (*)	6t RH structure (*)
30	20.0003 ... (*)	6t RH swing lip (*)
40	20.0017.0001	RH hydraulic power unit (Complete)
40	30.0015.0005	400/230v 3F 1.0cv 3000rpm power unit motor
40	30.0011.0007	RH1 1.7cc/v hydraulic pump body
40	30.0011.0008	7 Lit. plastic tank for RH1 hydraulic power unit
40	30.0011.0009	RH1 power unit sliding safety electro valve
40	30.0011.0010	Safety electro valve coil for RH1 power unit
40	30.0011.0011	Electro valve coil electrical connector
45	30.0011.0001	Bonded washer 3/8"
45	30.0011.0002	M/M connection fitting thread 3/8" Zincd gas
45	30.0011.0014	M/M reducer connection fitting 3/8" to 1/4"
45	30.0011.0003	Hydr. flexible conduit 2 straight outputs 3/8" Gas L=700
45	30.0011.0004	Hydr. flexible conduit 1 straight output + 1 90° output 1/4" Gas L=1700
45	30.0011.0006	Hydraulic oil
45	30.0012.0009	Grower M10 DIN-7980 safety washer
45	30.0012.0010	M10x20 DIN-933 screw
50	30.0010 ... (**)	Single effect cylinder, machine elevation

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60	30.0010.0002	Single effect cylinder Ø30 e/c =260 run=105
70	30.0006.0007	Rear hinge axle Ø19 x 175
70	30.0012.0034	DIN-471 Seeger ring for axle with Ø19 / Ø17.5
71	30.0006.0059	Zinquel axle for mounting hole Ø30x103
72	30.0006.0011	Axle for cylinder Ø25x120
72	30.0012.0040	Ø5x40 DIN-94 Cotter Pin
73	30.0006 ... (*)	Lip axle (*)
73	30.0012.0040	Ø5x40 DIN-94 Cotter Pin
74	30.0008 ...(*)	Galv. mobile toe guard
74	30.0012.0002	M6x16 ISO-7380 zined Allen truss head cap screw
74	30.0012.0003	M6 DIN-985 zined self-locking nut
75	30.0006.0008	Zinquel axle Ø16 x 70
75	30.0012.0039	Ø5x28 DIN-94 Cotter Pin
76	20.0018.0001	RH electrical panel (standard)
76	30.0015.0104	190X*240Y*105Z IP-55 plastic box for electrical panel
76	30.0013.0005	Electrical panel cover for doors
76	30.0015.0090	Telemecanique XB7-EA1P green push button
76	30.0015.0097	Telemecanique XB7-EV0.MP green pilot led
76	30.0015.0088	Telemecanique VN12 3-phase section switch
76	30.0015.0089	Telemecanique VN12 3-phase section switch control or
76	30.0015.0085	Electroniccard for ramps
76	30.0015.0103	Telemecanique GV2ME08 2.5-4Amagnetothermal motor
76	30.0015.0101	Ø5x20 1Amp 230v glass fuse
76	30.0015.0001	Black/Brown/Grey class 5 or 6 4x1.5 electrical hose
76	30.0015.0002	Black 2x1 Aceflex AG electrical cable
76	30.0015.0003	BGR M25 PG-9 tube with two sleeves.

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**Managing Director:** John O' Gorman.

**Company Registration Number (Ire):** 346380. • **Vat Registration Number (Ire):** IE6366380J.

## 05.03 – Installing the electrical control panel

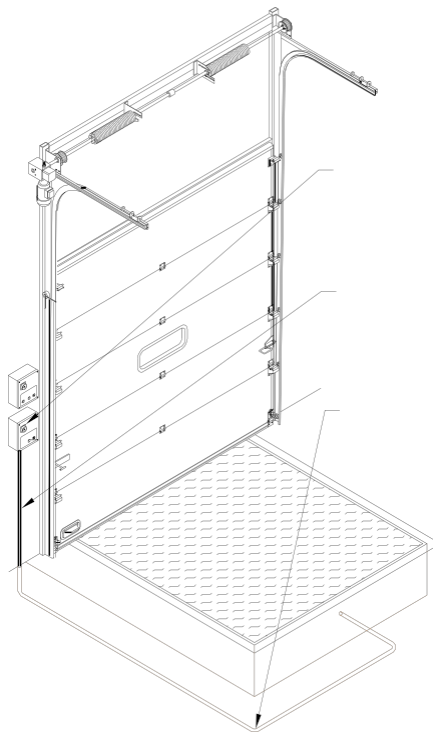
The electrical panel must be installed in the wall on the truck driver side, to allow the dock leveller operator to see and talk to the driver if necessary.

Secure the electrical panel box to the wall at the desired height and perfectly aligned with the output of the leveller cables, approximately 1300mm from the floor.

Adjust the tube for the electrical cables to pass through at the existing distance between the panel and floor.

Secure the tube to the wall (using at least 3 brackets); it must be perpendicular to the loading bay floor and aligned with the leveller output cables.

The plastic tube is delivered sealed to one of the two sides of the leveller bedplate.



Once everything is secured, pass the cables through and connect, pursuant to the attached electrical diagram which is inside the electrical control panel. (See electrical control panel connections.)

## 05.04 – Completed installation

Eliminate the front strips joining the lip to the bedplate.

**VERY IMPORTANT:** Weld the lateral panels, removing the rivet that holds them in place and check their movement and functionality.

Lastly, check the condition of the leveller paint, correcting any flaws (including the levelling plates).

The installation is considered completed when the installer authorised by **Ellickson Doors Ltd** has filled in the respective installation control sheet.

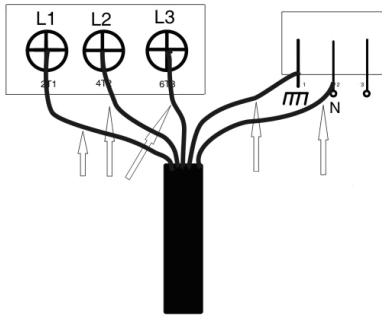
## 05.05 – Electrical control panel connection

Before installing the automatism, check that the power supply is disconnected

### 05.05.01 – Connecting the power input

Isolated 3-phase 380 V Neutral and Earth connection.

5x1.5 Cable.

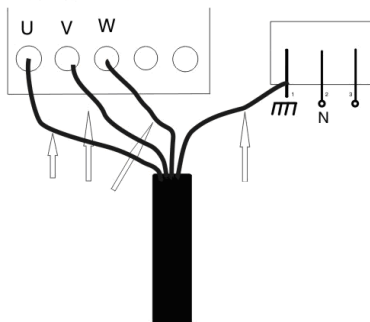


### 05.05.02 – Motor input connection

3-phase

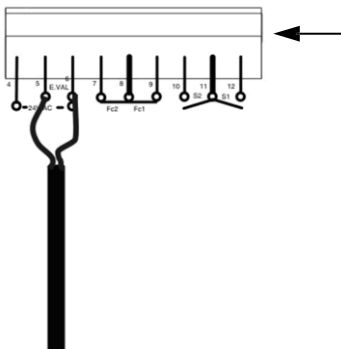
Ground

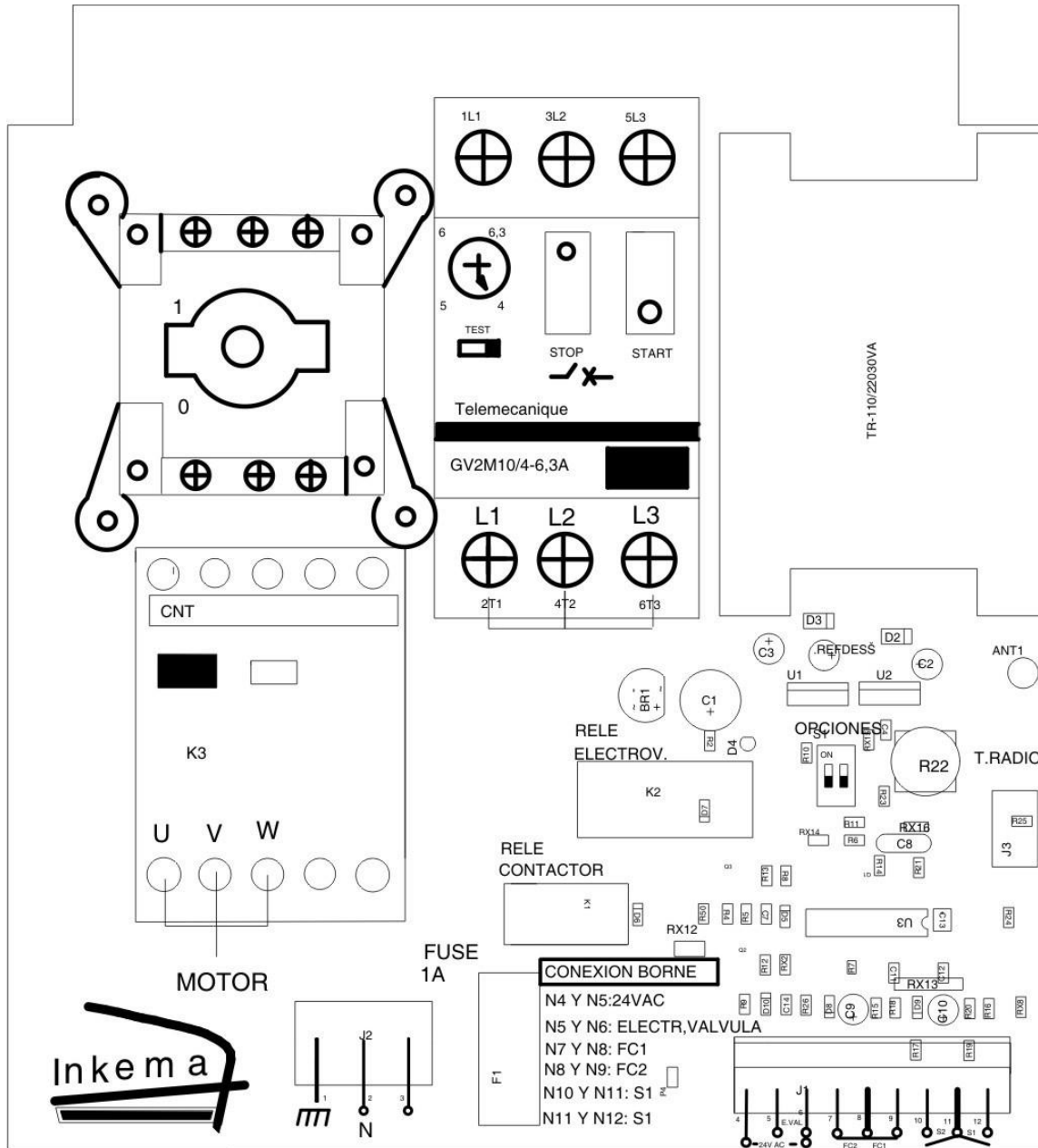
4x1.5 Cable.



**Note:** check the rotation direction and change to the U-V-W motor output (if not correct)

### 05.05.03 – Electro valves connection





## 05.05.04 – Description of the connection terminals

- 1 Ground
- 2 Power input 220V ac
- 3 Power input 220V ac
- 4 Voltage 24V ac
- 5 Electro valve output 24V ac
- 6 Electro valve output 24V ac (24V ac power)
- 7 FC2 N.C. electro valve limit switch
- 8 Common Limit Switches
- 9 FC1 N.C. motor limit switch
- 10 S2 N.O. button ( electro valve)
- 11 Common Push Buttons
- 12 S1 N.O. button (motor)



## 05.05.05 – Actions Selection

Select the type of operation using the micro switches.



TABLE type Man present manual operation



RH1 LEVELLER type semi-automatic operation



BAY WITH AUTOMATIC RETURN type semi-automatic operation.

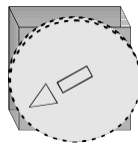
## 05.05.06 – Timers

Leveller raising time. Regulates the automatic raising time when FC2 is activated.

R. TIME

1 sec.

15 sec.



## 05.05.07 – Operation.

The automatism manoeuvres vary, depending on the type of operation selected.

a) TABLE type Man present manual operation

S1 activates the motor while pressed; electro valve deactivated. S2 activates the electro valve when pressed; motor stopped. FC1 deactivates the motor. FC2 deactivates the electro valve.

b) RH1 LEVELLER type semi-automatic operation

S1 activates the motor while pressed; electro valve deactivated. S2 deactivates the motor and the electro valve. FC1 deactivates the motor. FC2 deactivates the electro valve.

c) BAY WITH TIMED L.S., type semi-automatic operation.

S1 activates the motor while pressed; electro valve deactivated. S2 deactivates the motor and the electro valve.

FC1 deactivates the motor.

FC2 activates the motor and deactivates the electro valve, when FC2 is deactivated, the motor continues operating during the time selected in R. TIME and the electro valve is activated, which will continue to be activated.

## 07 – Incidents

**Warning: All checks must be made taking the opportune safety measures:**

- Do not perform checks when under voltage.
- Ensure which voltage is being measured with the multimeter.
  - All cable connections and disconnections will be made when not under voltage.
  - Put the safety bar in place whenever it is necessary to work underneath the machine.
- Do not test the machine when the operator is underneath it.

### 07.01 – The panel DOES NOT light up

No power	<ul style="list-style-type: none"><li>• Check the input voltage of the panel L1, L2, L3 and N<ul style="list-style-type: none"><li>There should be 400v between L1 and L2</li><li>There should be 400v between L1 and L3</li><li>There should be 400v between L2 and L3</li><li>There should be 230v between N and L1</li></ul></li><li>• Check that the motor guard has not fused<ul style="list-style-type: none"><li>- The black button is in and the red one out</li></ul></li><li>• Check the voltage in the section switch L1, L2 and L3<ul style="list-style-type: none"><li>- There must be 400v between L1 and L2</li><li>- There must be 400v between L1 and L3</li><li>- There must be 400v between L2 and L3</li></ul></li><li>• Check the voltage in the output of the section switch T1, T2 and T3<ul style="list-style-type: none"><li>- There must be 400v between T1 and T2</li><li>- There must be 400v between T1 and T3</li><li>- There must be 400v between T2 and T3</li></ul></li><li>• Check the voltage in the contactor 1L1, 3L2 and 5L3<ul style="list-style-type: none"><li>- There must be 400v between 1L1 and 3L2</li></ul></li></ul>
The panel does not light up	<ul style="list-style-type: none"><li>• A fuse has blown</li><li>• Check the red cable between contactor 1L1 and the block of connection terminal 3 Check the voltage between N and F</li></ul>
A fuse has blown	<ul style="list-style-type: none"><li>• Crossover or failure in the electro valve<ul style="list-style-type: none"><li>- Disconnect the electro valve cables terminals 5 and 6</li></ul></li><li>• Transformer burnt (transformer swollen or a smell of burning)<ul style="list-style-type: none"><li>- Replace board</li></ul></li><li>• Fault in the panel or damaged tracks<ul style="list-style-type: none"><li>- Replace board</li></ul></li></ul>

### 07.02 – The ramp DOES NOT rise

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Voltage or phase failure	<ul style="list-style-type: none"> <li>• Check the voltage between panel L1, L2 and L3             <ul style="list-style-type: none"> <li>- There should be 400v between L1 and L2</li> <li>- There should be 400v between L1 and L3</li> <li>- There should be 400v between L2 and L3</li> </ul> </li> <li>• Check the voltage at the input of the section switch L1, L2 and L3             <ul style="list-style-type: none"> <li>- There should be 400v between L1 and L2</li> <li>- There should be 400v between L1 and L3</li> <li>- There should be 400v between L2 and L3</li> </ul> </li> <li>• Check the voltage at the output of the section switch T1, T2 and T3             <ul style="list-style-type: none"> <li>- There should be 400v between T1 and T2</li> <li>- There should be 400v between</li> </ul> </li> </ul>
Guard motor shuts	<ul style="list-style-type: none"> <li>• Low motor guard amperage             <ul style="list-style-type: none"> <li>- Turn the amp adjustor in a clockwise direction to raise the amps to the nominal motor consumption (220v3R – 3’5A / 380v3R – 2A)</li> </ul> </li> <li>• Faulty cabling             <ul style="list-style-type: none"> <li>- Disconnect cables of U, V and W of the contactor and Motor and check the cable continuities with the multimeter at each end of the cables</li> <li>- Check the cables are not crossed, <u>there must be no continuity between them.</u></li> <li>Position the multimeter between:                 <ul style="list-style-type: none"> <li>• The black and brown cables</li> <li>• The brown and grey cables</li> </ul> </li> </ul> </li> </ul>
The motor DOES NOT work	<ul style="list-style-type: none"> <li>• Check the panel U, V and W output voltage.             <ul style="list-style-type: none"> <li>- There must be 400v between U and V</li> <li>- There must be 400v between U and W</li> <li>- There must be 400v between V and W</li> </ul> </li> <li>• Check the motor cables and motor connections             <ul style="list-style-type: none"> <li>- There must be 400v between U and V</li> <li>- There must be 400v between U and W</li> <li>- There must be 400v between V and W</li> </ul> </li> <li>• Check that the motor has not seized up             <ul style="list-style-type: none"> <li>- Dismantle the fan housing and try turning it manually</li> </ul> </li> <li>• The contactor does not work             <ul style="list-style-type: none"> <li>- Check whether there is continuity in the push button</li> <li>- Check the terminal block connection (terminals 11 and 12)</li> <li>- Check the safety connection (terminals 8 and 9)                 <ul style="list-style-type: none"> <li>• If no safety device is installed, there must be a bridge connection between terminals 8 and 9</li> </ul> </li> <li>- If a safety device is connected, check that it is on NC (contact closed) en operating as a table the raise table there is a limit</li> </ul> </li> </ul>
The motor works	<ul style="list-style-type: none"> <li>• The motor is turning in reverse             <ul style="list-style-type: none"> <li>- Change 2 motor phases (U for V)</li> </ul> </li> <li>• Limit valve of power unit not correctly regulated Tighten the valve in quarter turns and check</li> </ul>
Lack of hydraulic oil	<ul style="list-style-type: none"> <li>• Replenish hydraulic oil</li> <li>• Hydraulic oil leak (rod or sleeve)</li> </ul>

Managing Director: John O’ Gorman.

Company Registration Number (Ire): 346380. • Vat Registration Number (Ire): IE6366380J.

## 07.03 – The leveller DOES NOT descend

No voltage in the electro valve	<ul style="list-style-type: none"> <li>• Check that PIN 1 is at ON                             <ul style="list-style-type: none"> <li>- (When functioning as a table PIN 1 must be at OFF)</li> </ul> </li> <li>• Check the safety device FC2 in terminals 7 and 8                             <ul style="list-style-type: none"> <li>- If there is no safety device installed, there must be a bridge connection between terminals 7 and 8</li> <li>- If there is a safety device connected (when functioning as a table there is a foot protector device) check that it is on NC (contact closed)</li> </ul> </li> <li>• Check the output voltage in terminals 4 and 6                             <ul style="list-style-type: none"> <li>- There must be 24v between terminals 4 and 6</li> </ul> </li> <li>• Check the output voltage in terminals 5 and 6                             <ul style="list-style-type: none"> <li>- There must be 24v between terminals 5 and 6 after pressing</li> </ul> </li> </ul>
Electro valve	<ul style="list-style-type: none"> <li>• Cabling cut                             <ul style="list-style-type: none"> <li>- Disconnect the cable from terminals 5 and 6 and from the electro valve. Check the continuity of the cables</li> </ul> </li> <li>• Check the input voltage in cowl 24v ~                             <ul style="list-style-type: none"> <li>- Disconnect the cowl from the coil and check that the input voltage is 24v in alternating current and there is 24v at the output of the cowl in continuous current</li> </ul> </li> <li>• Electro valve coil                             <ul style="list-style-type: none"> <li>- Check the coil magnetising. Remove the coil from the sliding door and insert a screwdriver for a short interval of time, 2 or 3 seconds, under voltage. <b>Very important:</b> If placed there for longer the coil will be burned.</li> </ul> </li> </ul>
Power unit	<ul style="list-style-type: none"> <li>• Lowering adjuster too tight or too loose                             <ul style="list-style-type: none"> <li>- If the vale is too tight turn the screw in an anti-clockwise direction (loosen)</li> <li>- If the valve is too loose, the piston safety valve could be triggered (tighten) Piston safety valve</li> </ul> </li> </ul>

## 07.04 – The lip DOES NOT open or functions very slowly

Power	<ul style="list-style-type: none"> <li>• Sequence valve closed                             <ul style="list-style-type: none"> <li>- Turn the adjuster screw in an anti-clockwise direction (loosen)</li> </ul> </li> </ul>
Lip	<ul style="list-style-type: none"> <li>• Lip too stiff                             <ul style="list-style-type: none"> <li>- Dismantle the piston and check that the lip can move properly</li> </ul> </li> </ul>

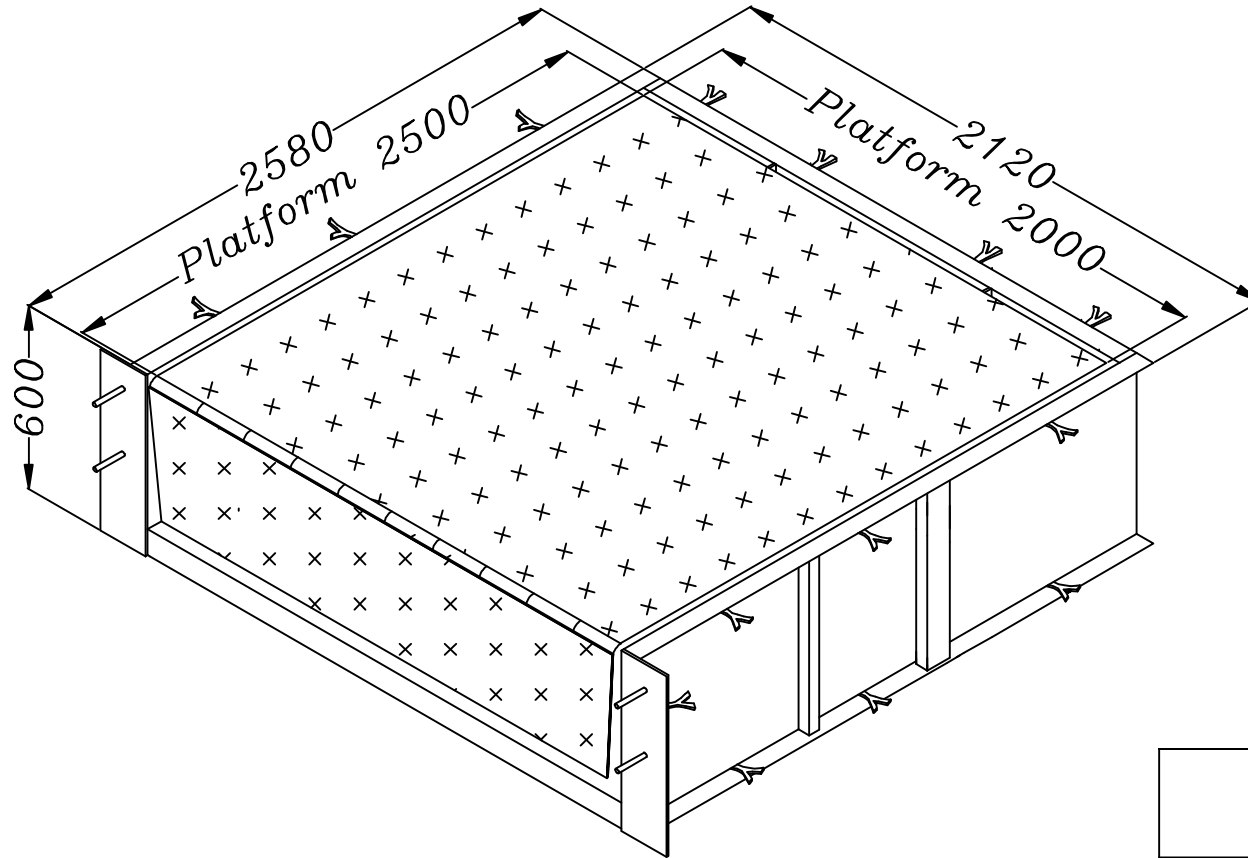
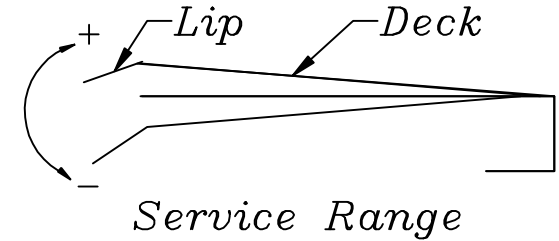
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## 07.05 – The lip opens before the leveller is raised

### Power unit


- Sleeves mounted in reverse. Change the sleeves in the power unit
- The sequence valve has opened too much.

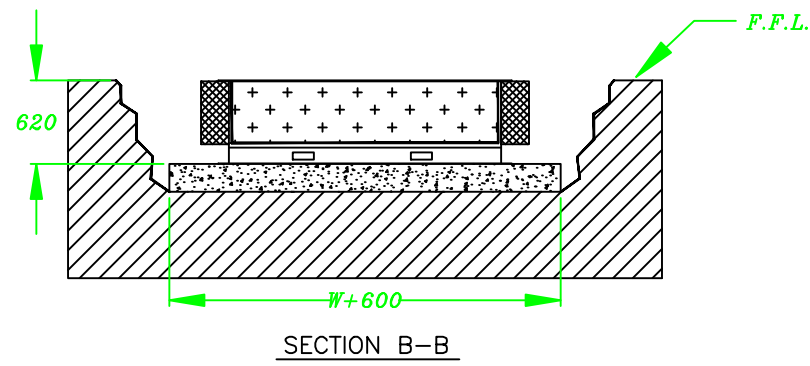
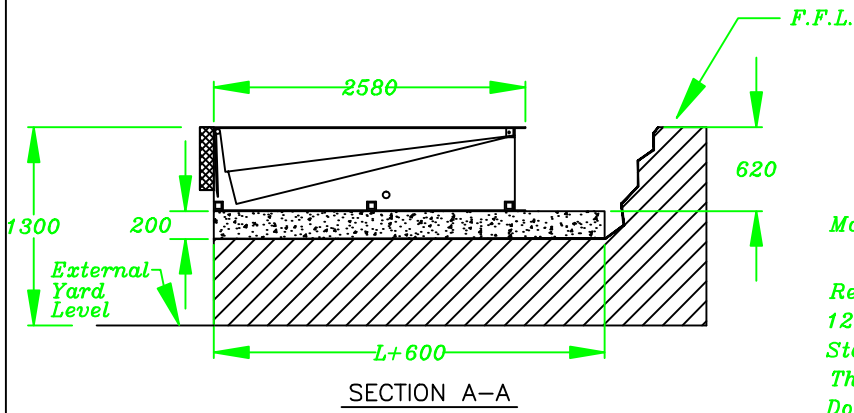
MODEL NUMBER	PLATFORM SIZE		LIP LENGTH STANDARD	CAPACITY RATED LOAD	SERVICE RANGE + -
	W	L			
RH11	2000	2500	400	6000KG	300



*Dock Leveller*

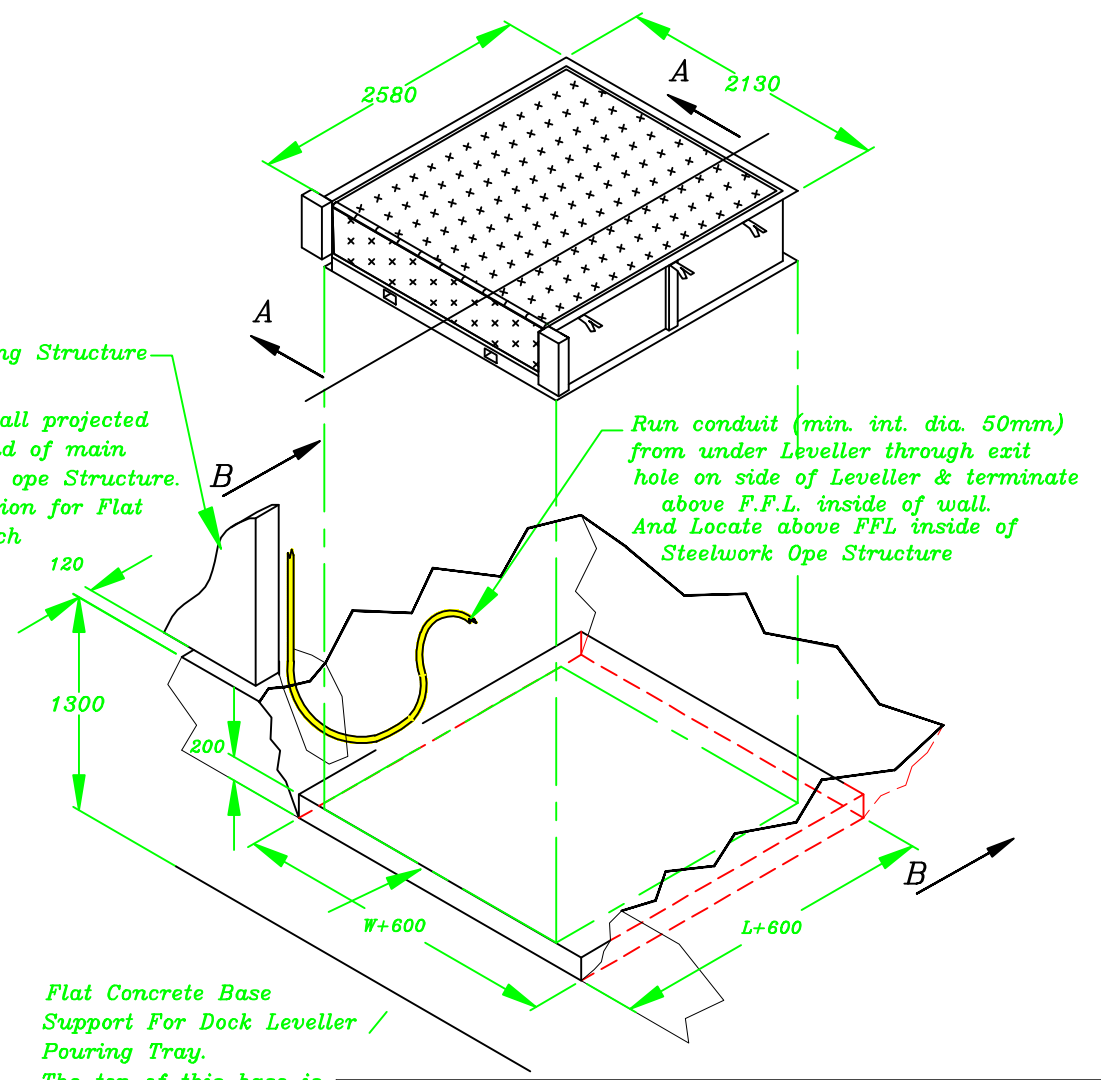
<b>FOR PIT DIMENSIONS</b>
PIT LENGTH = L + 115 mm
PIT WIDTH = W + 40 mm
PIT DEPTH = 620 mm

 <b>Ellickson Doors</b> SUPPLY • INSTALL • SERVICE			
Unit 17F, Six Cross Roads Business Park, Waterford TEL: 051-338451 MOB: 087 2859866, 087 2306843			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETRES DO NOT SCALE DRAWING		DRAWING TITLE <i>Electro Hydraulic Dock Leveller          Model RH11</i>	
DRAWN BY <i>A O Brien</i>	DATE <i>22-10-08</i>	STORAGE REFERENCE:	JOB REFERENCE
CHECKED BY	DRAWING NO. <i>HYD-CS-01</i>		



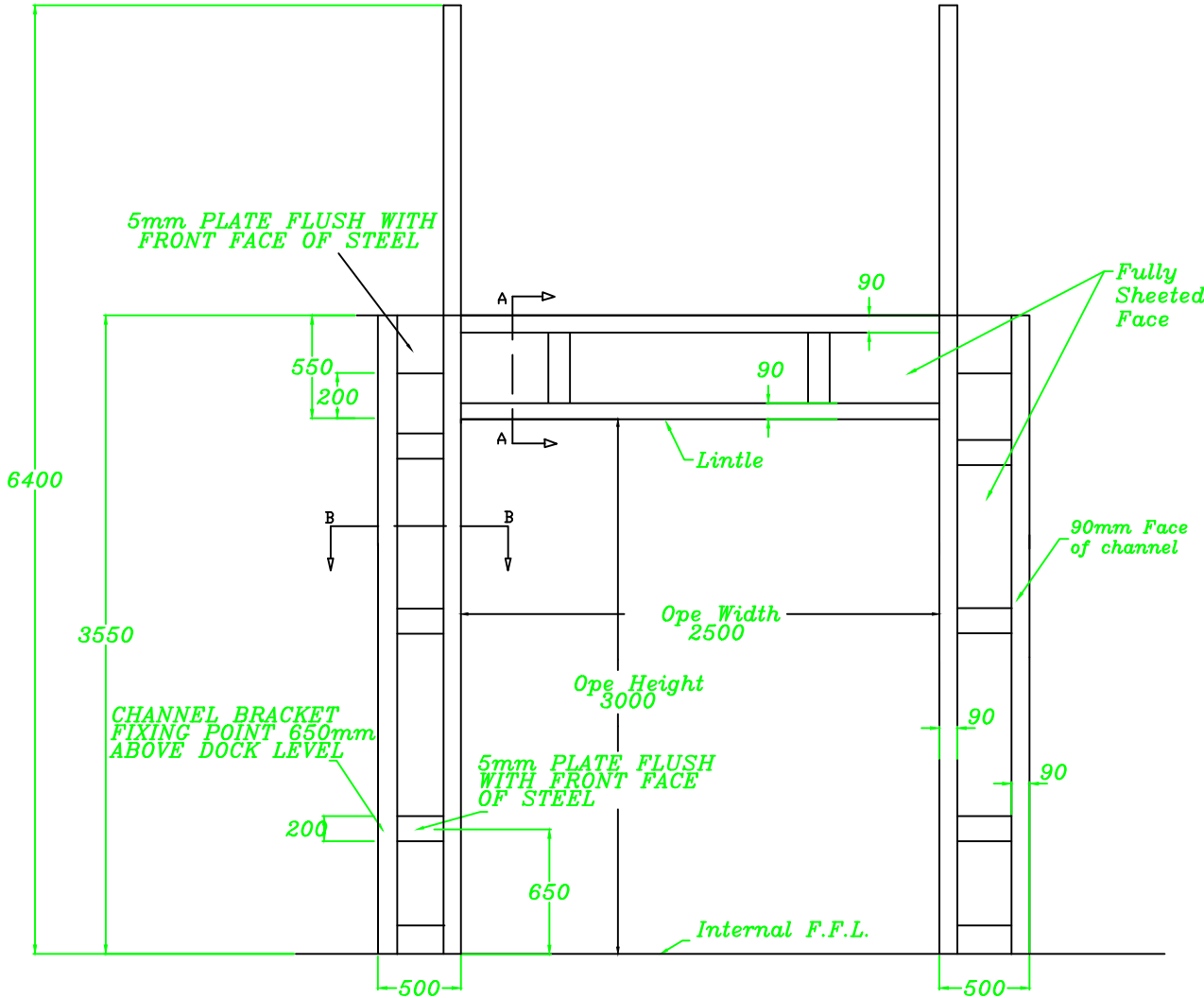
**Note**  
 Ensure Leveller/Pouring Tray is secured in position on concrete base before internal FFL Floor is installed

Main Building Structure  
 Retaining wall projected 120mm proud of main Steelwork of ope Structure. This Dimension for Flat Dock approach

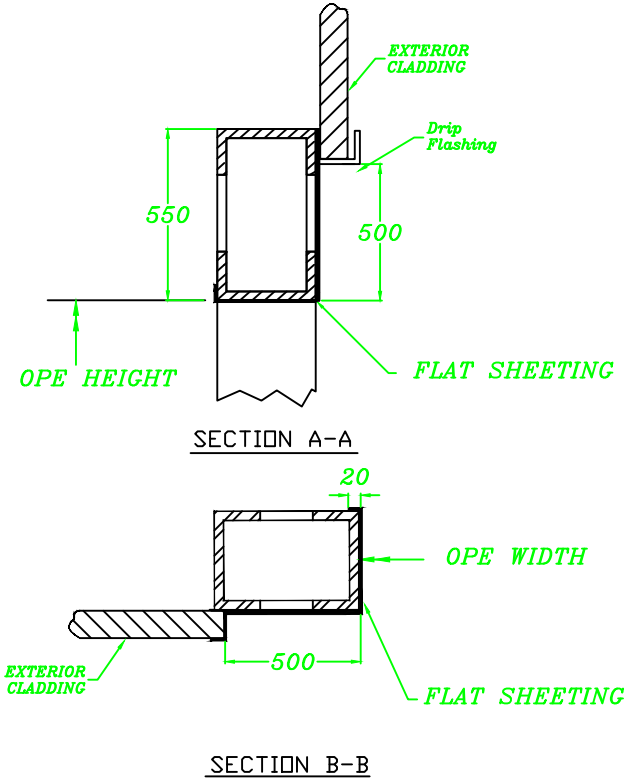


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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETRES DO NOT SCALE DRAWING		DRAWING TITLE <b>Installation Detail For Dock Leveller / Pouring Tray Combi Unit</b>	
DRAWN BY <b>DR</b>	DATE <b>06-09-12</b>	STORAGE REFERENCE: <b>P. Tray</b>	JOB REFERENCE <b>Pouring Tray</b>
CHECKED BY		DRAWING NO. <b>PT-DL-Pit-01</b>	



Elevation View



**Ellickson Doors**  
SUPPLY - INSTALL - SERVICE

Unit 16A, Six Cross Roads Business Park, Waterford  
TEL: 051-370962 MOB: 087 2859866, 087 2306843

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETRES DO NOT SCALE DRAWING		DRAWING TITLE <i>Dock Leveller Loading Bay Opening</i>	
DRAWN BY <i>A O Brien</i>	DATE <i>17-8-17</i>	STORAGE REFERENCE	JOB REFERENCE
CHECKED BY		DRAWING NO. <i>SW-SHE-01</i>	