LIFTINGITALIA S.r.l.
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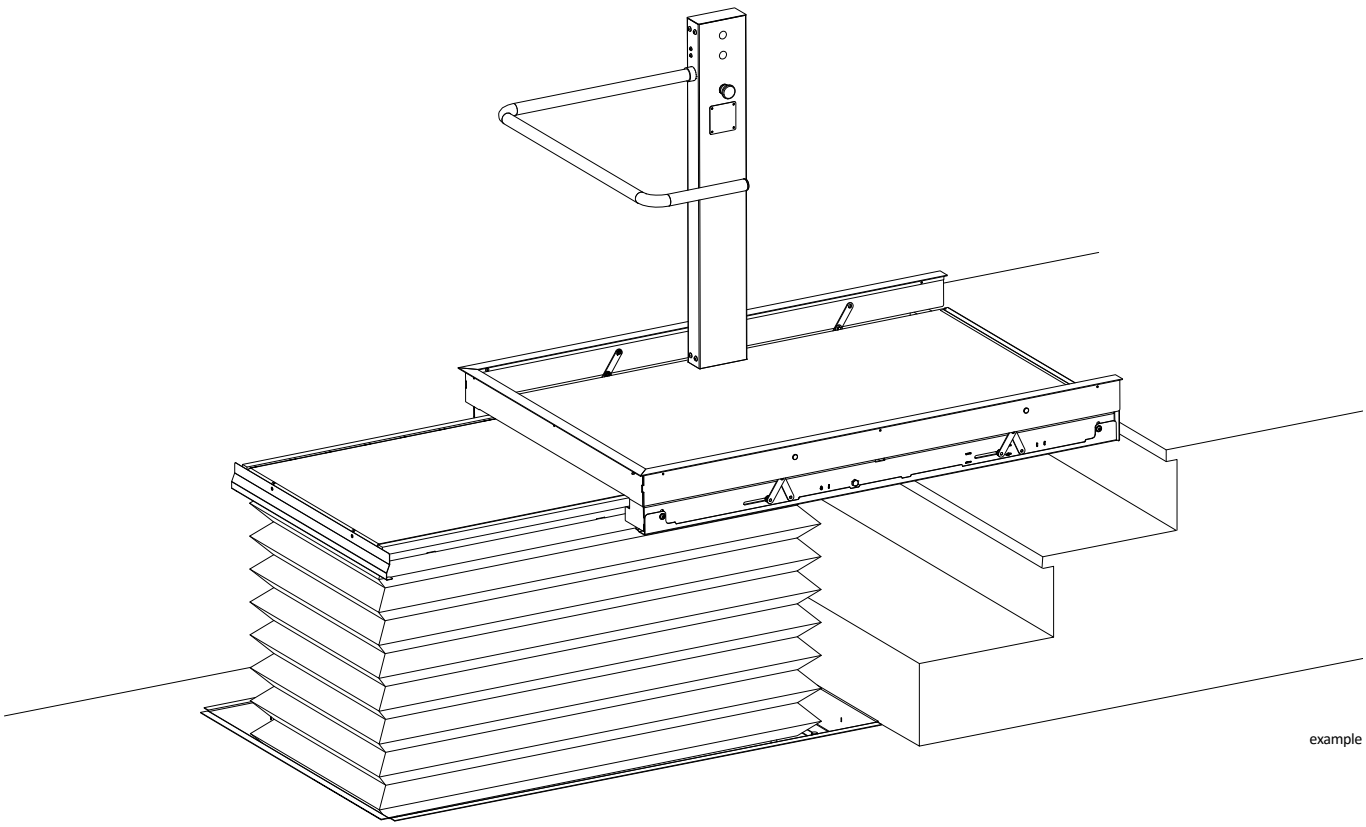
miniPOCKET

Transfering platform



example

INSTALLATION INSTRUCTIONS

As far as the following items are concerned : general instructions, safety instructions, responsibility and warranty, material receiving and storage on site, packing, waste disposal, cleaning and maintenance, please consult the manual "**SAFETY AND MATERIAL HANDLING ON SITE**".

INDEX

1	General update	25.07.2016
Rev.	*Descrizione*	*Data*

0 MANUAL READING GUIDE

0.1 CHAPTER SYMBOLS

	General information		Positioning
	Box content		Installation
	Preliminary advice		Commissioning
	Read carefully		Electrical Wiring

0.2 IMPORTANT ITEMS

	General safety warning		Important notice		Read carefully
	Risk of electric shock		Risk of bodily injury (e.g. due to sharp angles or protruding parts)		Risk of damage to mechanical parts (e.g. during incorrect installation)
	Fire hazard		Hanging load		Risk of skin injury
	Risk of falling		No entry		Materials to be protected against bad weather conditions

0.3 INDIVIDUAL SAFETY DEVICES

	Hard hat		Ear protection		Safety harness and other accessories
	Overalls		Safety steel-toe boots with ankle protection		Safety glasses
	Dust masks		Work gloves Rubber gloves		First aid kit

The words **WARNING** and **CAUTION** are used to highlight the following risks of injury and damage:

WARNING	Serious danger to safety
CAUTION	Risk of damage to materials which may lead to safety risks

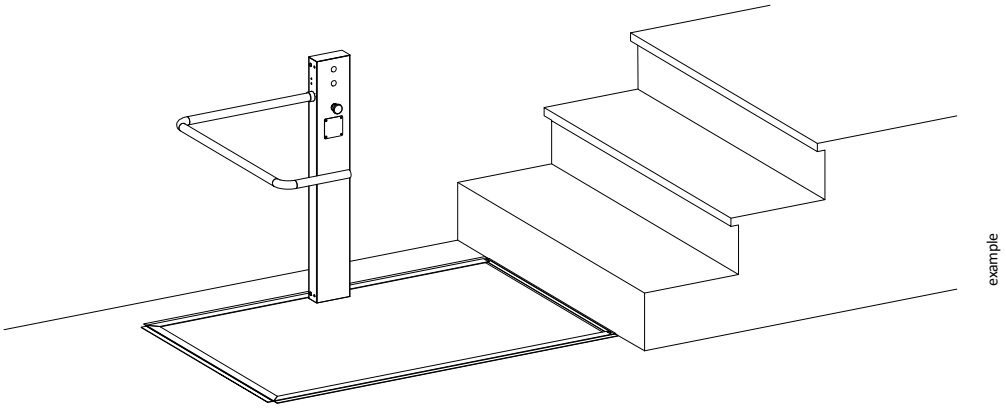
1 PLATFORM LIFT: GENERAL FEATURES AND DESCRIPTION

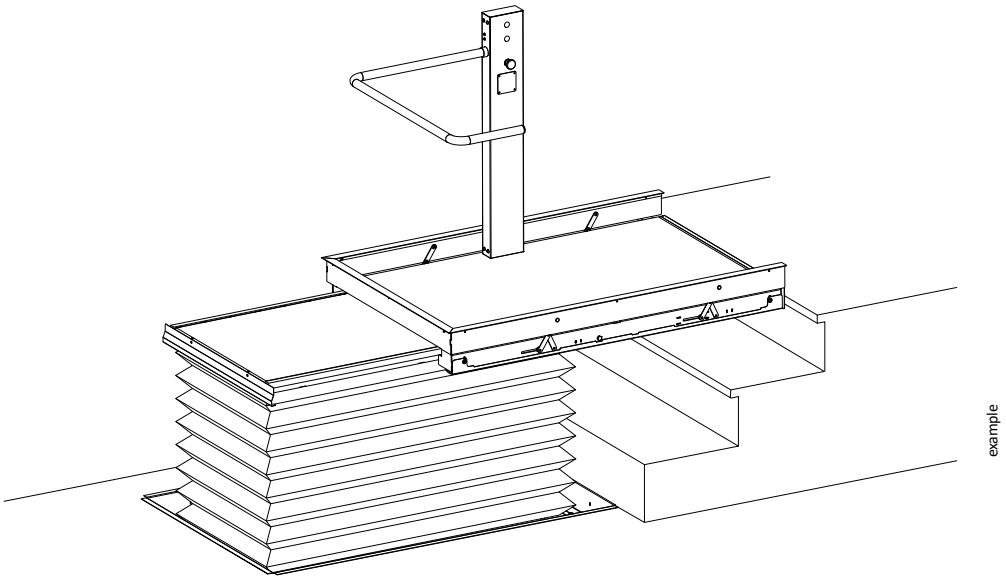
MiniPOCKET platform is a system focused in overcoming up to 780mm vertical rise even for short staircase because it supports maximum 800mm cross rise.

Once closed, the platform remains hidden, solving environment impact problems possibly occurring in old town o r of particular architectural value.

The system has perimetral fall arrest protections uncrushing and unscissor folder to offer users complete safety. In case of 500mm upper rise, according to laws, the system needs for protection bar on down side.

LIFTINGITALIA S.r.l. aims in promoting the constant improvement of its products and its technical features may be subjected to changes without any notice nor commitment.



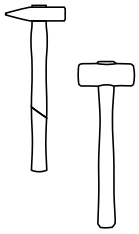


FOR THE INSTALLATION OF THESE SYSTEMS BUILDING WORKS ARE NEEDED. THEY WILL BE REALIZED BY CUSTOMER, FOLLOWING STRAIGHTLY INSTRUCTIONS GIVEN DURING COMMISSION.

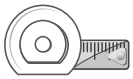
2 TOOLS REQUIRED FOR INSTALLATION

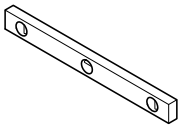
Hammer

Rubber hammer



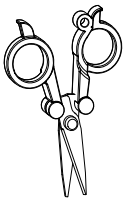
Tape measure





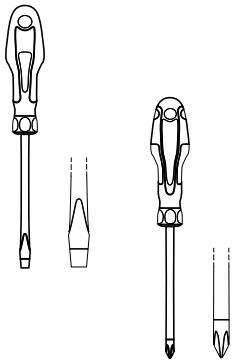
Spirit level

Scissors for electricians



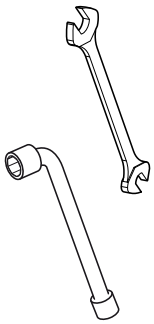
Flat-blade screwdriver

Phillips screwdriver



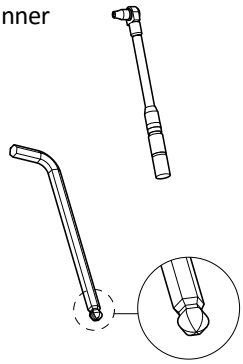
Spanner
CH 5 ÷ 19 mm
2 each size

Socket wrench
CH 5 ÷ 19 mm



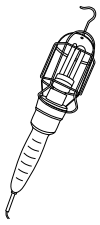
Ratcheting ring spanner
S 5 ÷ 19 mm

Allen key
with ball end
CH 2 ÷ 8 mm



Adjustable pliers

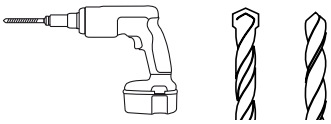
Portable lamp



Manual hoist, load ≥ 500 kg, length ≥ 2,5 m

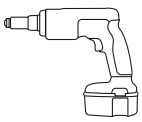
Lifting belts, load ≥ 500 kg, length ≥ 2 m

Drill

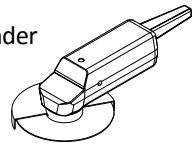


for Brickwork CH 5 ÷ 22 mm
Metal CH 2 ÷ 13 mm

Screwdriver
CH 5 ÷ 19 mm



Corner grinder

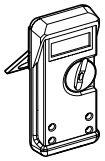


· cutting disks
· metal grinding disks

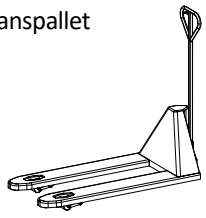
Insulating tape

Chronometer

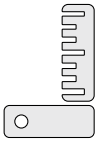
Digital multimeter



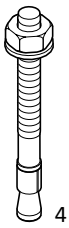
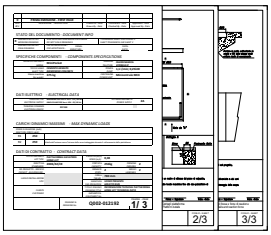
Transpallet



Bricklayer split

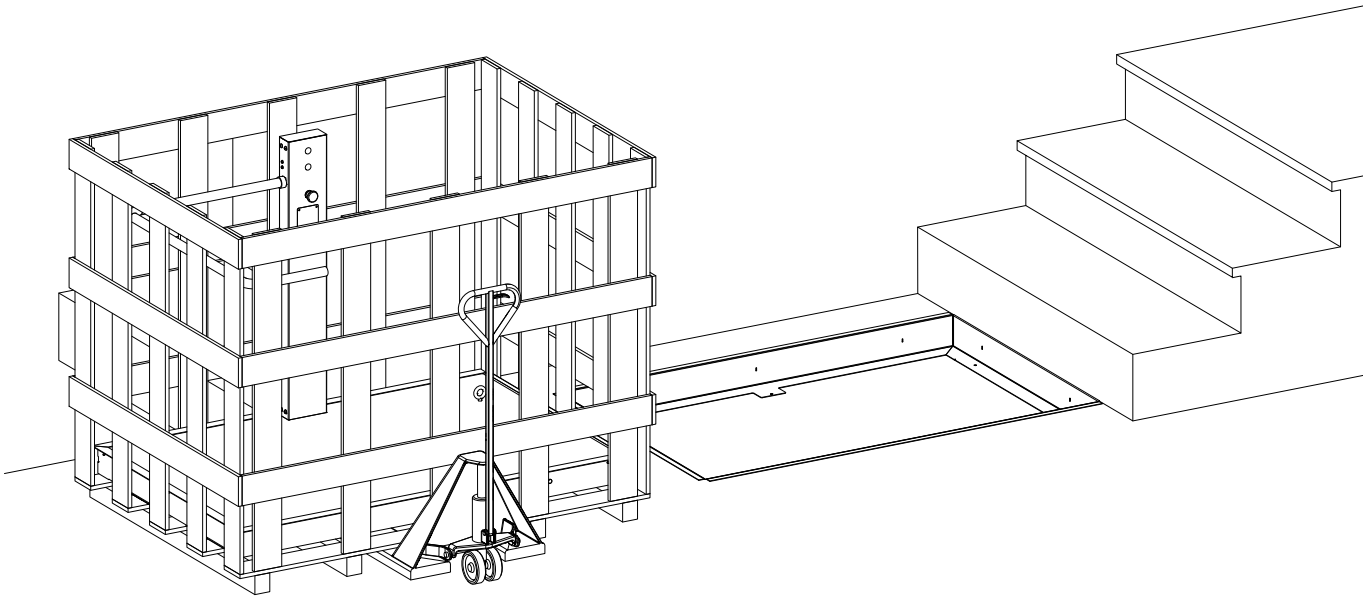


3 BOX CONTENT

KIT F710.23.0001	KIT F710.23.0002	KIT F350.23.0027	LAYOUTS
 10 x M4x30	 2 x M10x40	 4 x M10  4 x Ø10 - Ø30	

4 MATERIAL HANDLING ON SITE

All materials may be portioned near lowest level. For materials transfer transpallets or stairlifts are suggested.



5 PRELIMINARY ADVICE

As far as the following items are concerned : general instructions, safety instructions, responsibility and warranty, material receiving and storage on site, packing, waste disposal, cleaning and maintenance, please consult the manual "**SAFETY AND MATERIAL HANDLING ON SITE**".

To support in introducing the subject, on this manual we mention “LIFT WELL/shaft (hoistway)” meaning it basis/bottom slab and vertical wall joining them.

- Important notes:
  1. Fix the tools to prevent an accidental fall;
  2. Strictly follow the steps described in this manual;
  3. Be careful when assembling single components, there may be sharp flaws (production leftovers);

- Before starting installation, it is necessary to remove all the residual materials and waste from the shaft.

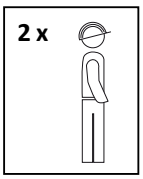
- We recommend that you use only the nuts and bolts supplied with the lift.

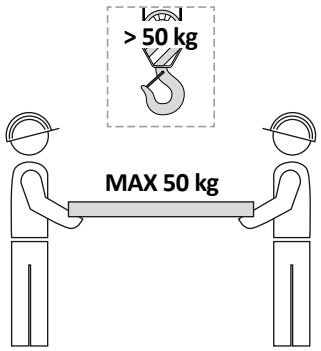
- The bags containing nuts and bolts must be opened in accordance with the installation step indicated in this Manual.

- The instructions stated in this Manual, are valid for a concrete shaft, where wall plugs must be used. For brickwall shafts, consult the Appendix 1 to the this Manual. For steel shafts, the same procedure is applied, replacing plugs with normal screws.

- The stops are indicated with numbers 0, 1, 2, 3 both in this Manual and in the electrical scheme, where “0” stands for the lowest floor: the COP numeration could be different, according to the special needs of the user (example –1, 0, etc.).

- Least 2 people are required to make the assembly;
- Over 50Kg load needs moving pulley.

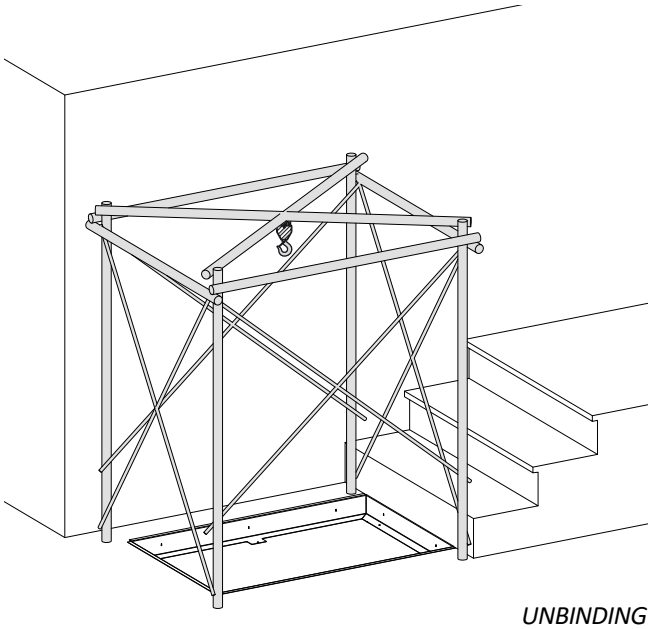




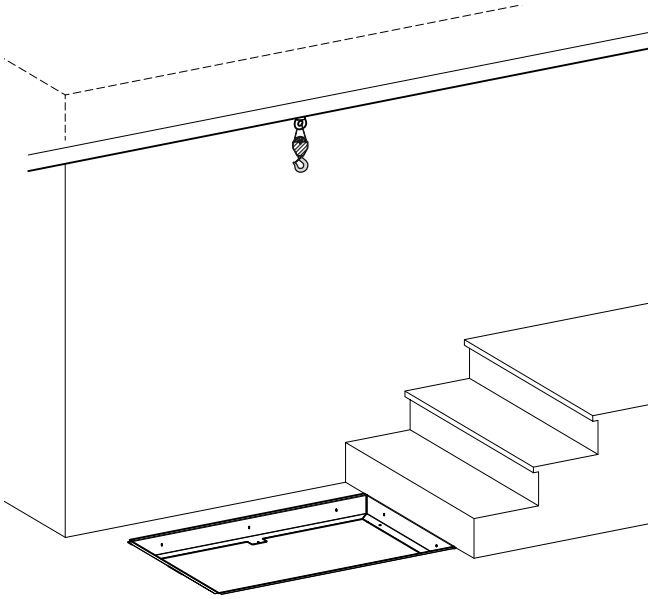
6 PRELIMINARY OPERATIONS

6.1 INSTALLATION PLACE ARRANGEMENT

To place the platform on its working place, you need to arrange a specific lifting coupler (at least 500 kg load) on vertical part of the lift shaft, fixing it to a rawlplug on the ceiling or on an upstand frame (temporary scaffolding) doted by mechanic lifting fit for load lifting.



UNBINDING
stock pictures



UNBINDING
stock pictures

6.2 ELECTRICAL COMPONENTS : PREPARATION

miniPOCKET Platform supply is the result of platform switchboard connection to a common 230Vac, 50Hz, 10A socket.
We suggest to arrange a dedicated power line, directly connected to user main energy meter.

6.3 CONSTRUCTION WORKS: CHECK PROCEDURES

a. SHAFT: GENERAL CHECK PROCEDURES.
Lift shaft stucture must be compliant to national laws about buildings subject in order to bear strenghts produced by lifting platform during its employment.
On project design biggest loads charging the shaft are specified.

The shaft must have the following features:
- Walls must be plastered in full height;
- Temperature range between +5 and +40°C;
- Opposite area free and accessible according to design instructions;
- Passages and canalization for electric and oleodynamic lines;
- Rainwater collection sump outside arrangement.

b. SHAFT VERTICAL DIMENSION: CHECK PROCEDURES.
The following dimensions must be checked:
- Travel
- Headroom
- Pit
- Small gate opening (when present on upper floor)
- Plumbing

The dimensions must be compliant with the project drawings (shaft section).

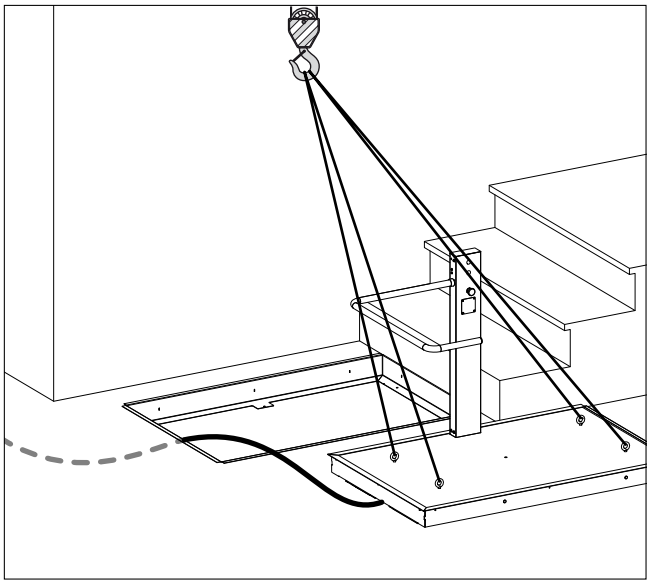
c. PLAN SHAFT DIMENSION: CHECK PROCEDURES.
The following dimensions must be checked:
- Width
- Depth
- Square
- Small gate position (when present on upper floor)

The dimensions must be compliant with the project drawings (shaft plan).

7 PLATFORM INSTALLATION

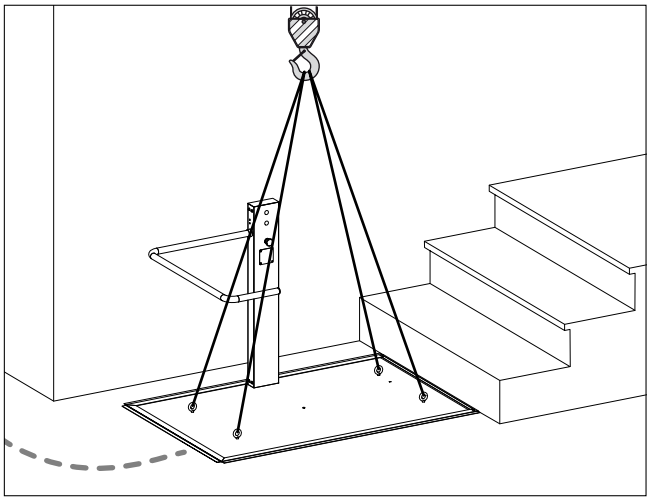
7.1 PLATFORM ARRANGEMENT

- Lay the platform near grave arranging it so that platform pipes exit point are near its dedicated corrugated;
- Pass the pipes/cable inside dedicated corrugated;
- Lift the platform using 4 fitted lifting eyebolts;

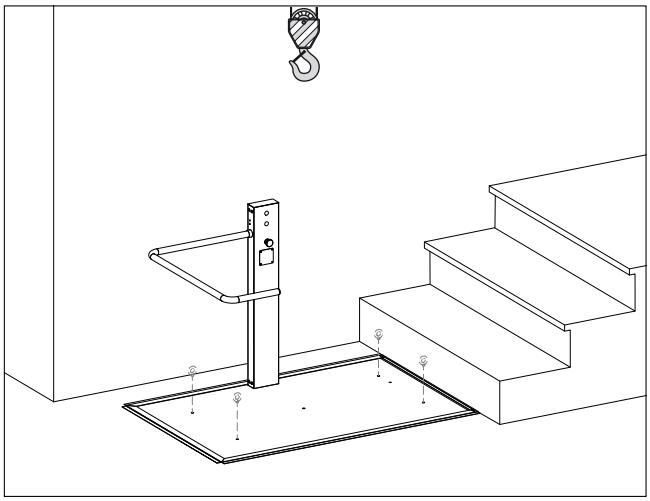


- Place the platform athe center of the grave near the spider;

Pull handly the pipes to drive them far from the bottom of the platform



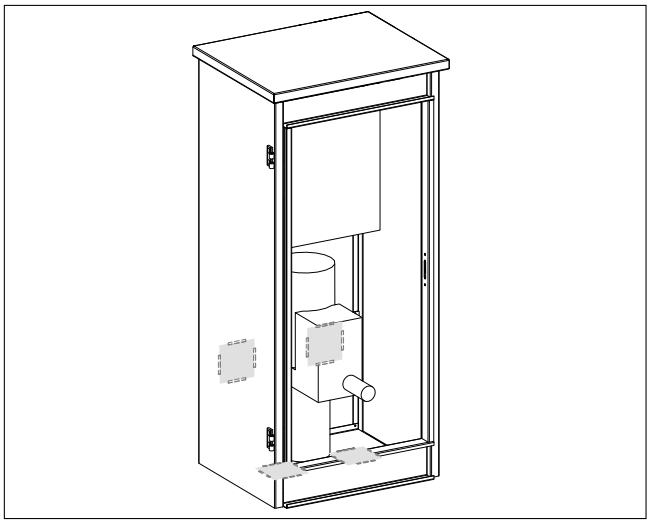
- Remove the 4 lifting eyebolts;



7.2 HYDRAULIC PUMP UNIT AND CONTOLLER INSTALLATION (AND CABINET if expected)

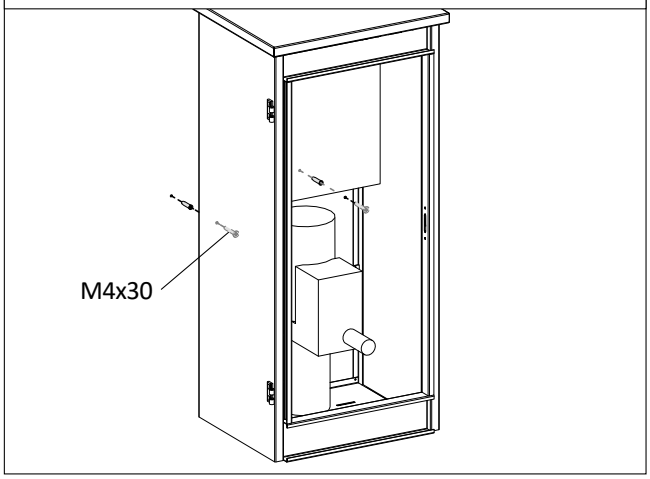
· Arrange the hydraulic pump unit and the controller (or cabinet) where planned;

If cabinet, first arrange it, then verify where pipes/cables passage is, in order to open requiered and dedicated lift shafts.



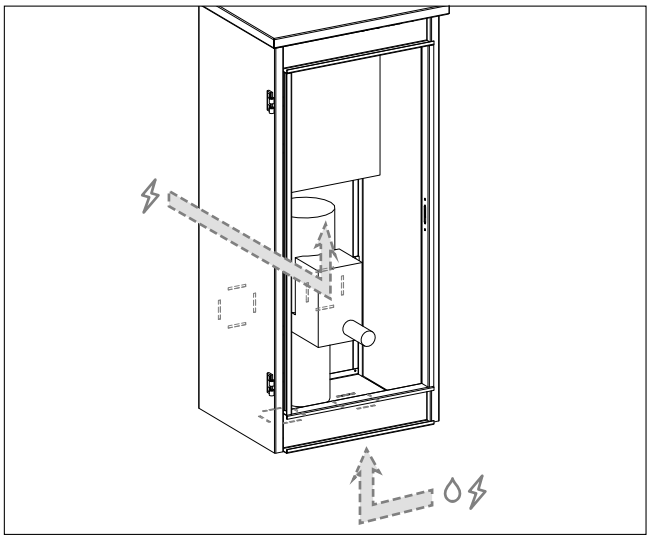
To fix cabinet to wall through rawlplugs.

KIT F710.23.0001



· Oleodynamic connections;

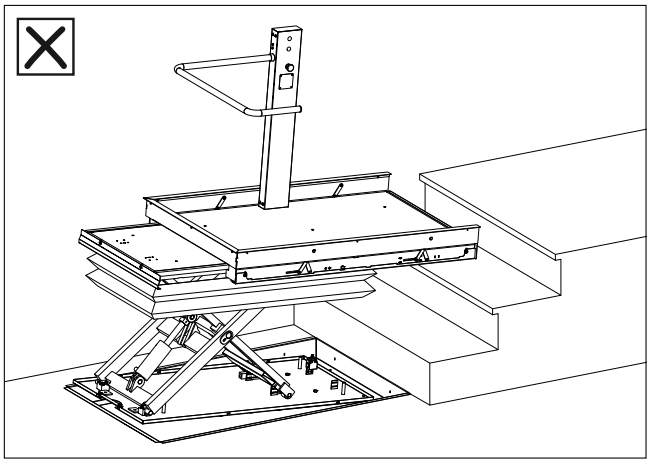
· Electrical connections according to electrical outline project;



7.3 SYSTEM PRESSURING

AT THIS STAGE PLATFORM ISN'T FIXED YET.
NO TRANSFER MOVEMENTS ALLOWED TO AVOID UNBALANCING THE PLATFORM AND ANY DAMAGES TO IT OR TO PEOPLE.

VERIFY THAT LIFTING EYEBOLTS HAVE BEEN REMOVED.

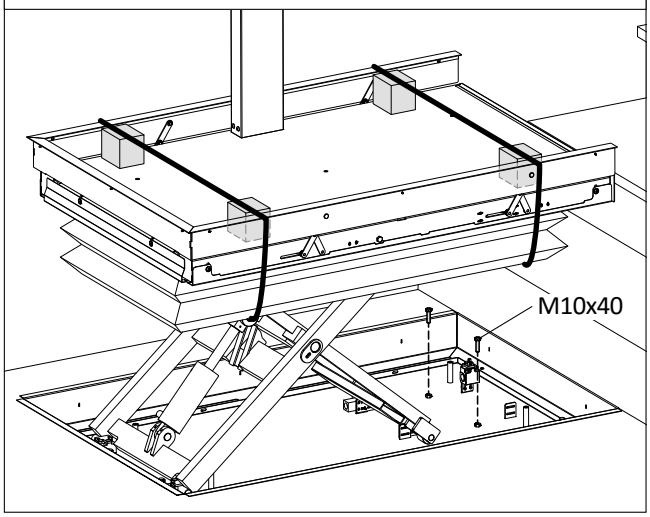


- Verify on controller that all engine and device security connections are activated as reported on electric project outline and on terminal box top;
- Verify oleodynamics are activated as reported on electric project outline;
- Give potential difference to controller;
- With remote control (or floor switch when planned) make rise the platform;

DO ONLY VERTICAL MOVEMENT, the platform might not shift.

- Put temporary some wood blocks near stripes;
- Lift the folding temporary arresting it to platform (the folding is not stopped to grave: its load pulls it towards ground;
- Put the maintenance KIT screws on grave;

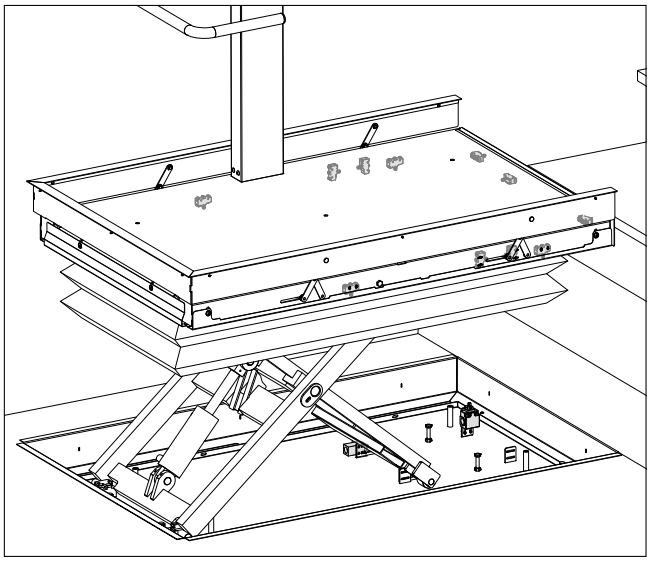
KIT F710.23.0002



Screws should not press on grave

- Verify with a tester that all contacts are propperly working;

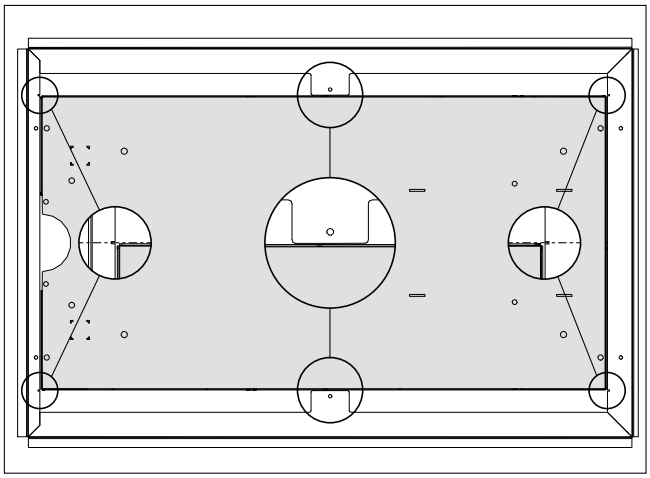
- Verify visually that there are no oil waste on circuit.



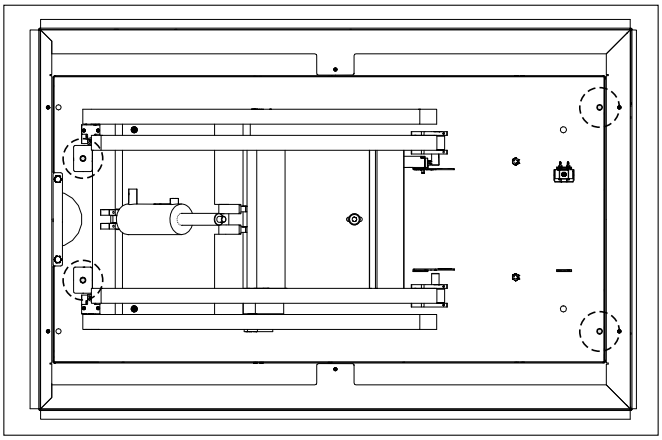
7.4 PLATFORM INSTALLATION

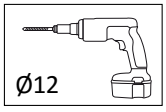
· Verify the right positioning of platform using spider pointers.
Move platform base using lever;

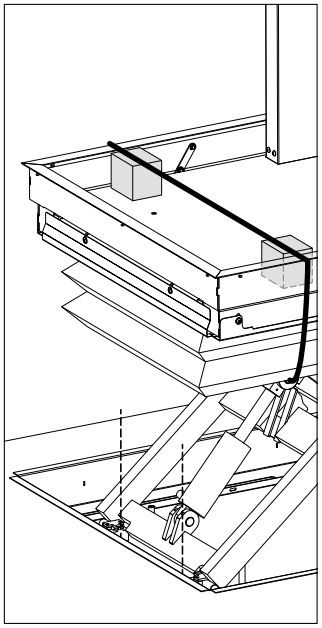
Use the protection (wood board) between level and platform base.



· Drill on grave the arranged points;
· Fix platform base with supplied screws.







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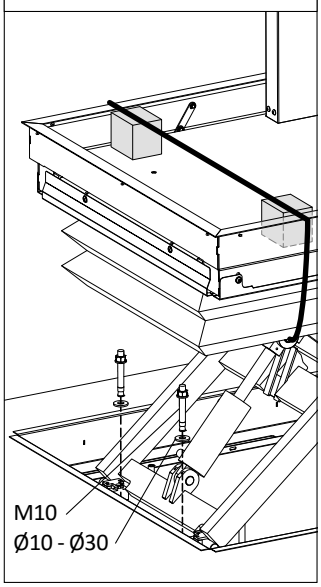
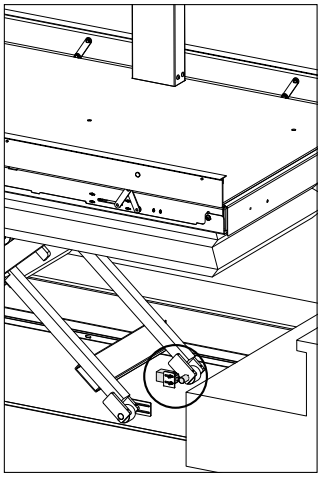
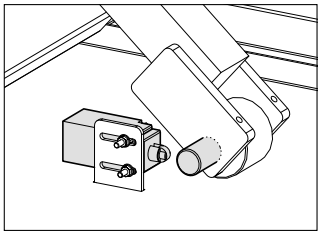
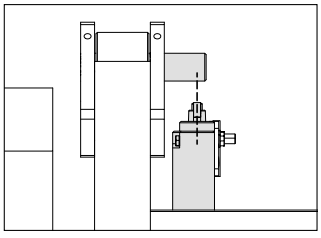


· Verify upper final limit contact;
The contact must be in perspective of the pivot positioned on pantograph roller.
When contact opens, platform ha sto stop.







· Lower the folding;
· With remote control (or floor switch when planned) put down the platform.

8 FIRST TEST SWITCH / CONTACTS CHECK

We suggest, before complete platform switch to:
- Check that on compartment there are no clear barriers or stick out materials interferring with platform movement;
- Verify that the STOP on column (if expected) is misfit;
- Verify that the 2 security screws on grave are mounted (maintenance kit);
- Verify that horizontal distance between platform and lobby level is less than 800mm;
- Verify folding to be stretched out and correctly positioned;
- Give potential difference to controller;
- Verify that activating transfering ultimate limit contact, the platform stops;
- Verify that, when the platform is on landing floor, the gap between the platform and the floor is less than 10 mm, otherwise please rehang the upper ultimate limit contact;
- Verify that, on slope stage, activating safety edge the platform stops, otherwise please regulate perimeter safety contracts;
- Verify that, driving the platform at lower floor, it regularly stops at the floor, otherwise, regulate lower ultimate limit contact;
- Verify that, electric cables positioned on machinery edge don't interfere to platform mechanisms;
- Make full travels.

Record the checked test as descrive at point **2.2** of handbook **"Final Checks"**.

9 FINAL ELECTRICAL CONNECTION

9.1 CHECKING THE CONNECTION IN THE CONTROL BOARD AND INSULATION TEST

Verify, according to electrical outline project, that all connection on controller have been made.
Make isolation test on circuits for earthing, a sit follows:
- Take platform out of floor to close security chain;
- Interrump the supply to motive power circuits;
- Disconnect controller circuits of earthing system and possible batteries;
- Connect a plug (generally the black one) to an external mass (for example motor casing, or the center of electric socket when earthing).
  With the other plug please test all circuits (motive power, controller circuit, lights signals circuit, motor pump supply, alarm circuit);
- Detach the pulg (black) from external mass and connect it to clump of controller circuit and test it with all other circuits;
- Ripete the operation to test the precise isolation among all circuits.

10 PLATES TO BE ATTACHED TO THE LIFT

HYDRAULIC PUMP UNIT AND CONTOLLER
INSTALLATION ON CABINET OF CONTROLLER

On cabinet top

PLATFORM MACHINERY
DANGER
ENTRANCE FORBIDDEN
WITHOUT AUTHORIZATION
05

10

RECOMMENDED HYDRAULIC OIL
Mineral oil ISO VG **46**
Viscosity ≥ 100
Working temperature: + 5°C ÷ + 70
06

On main switch supply

PLATFORM MAIN SWITCH
CUT OFF THE POWER SUPPLY ONLY WHEN THE PLATFORM HAS REACHED THE FURTHER DOWN FLOOR
04

PLATFORM DRIVING FORCE SWITC 08

From external platform alarm

PLATFORM ALARM 09

LOAD SUPPORT
On colum (if expected)

Press the button chained to the desired floor, and hold throughout the entire tr 11

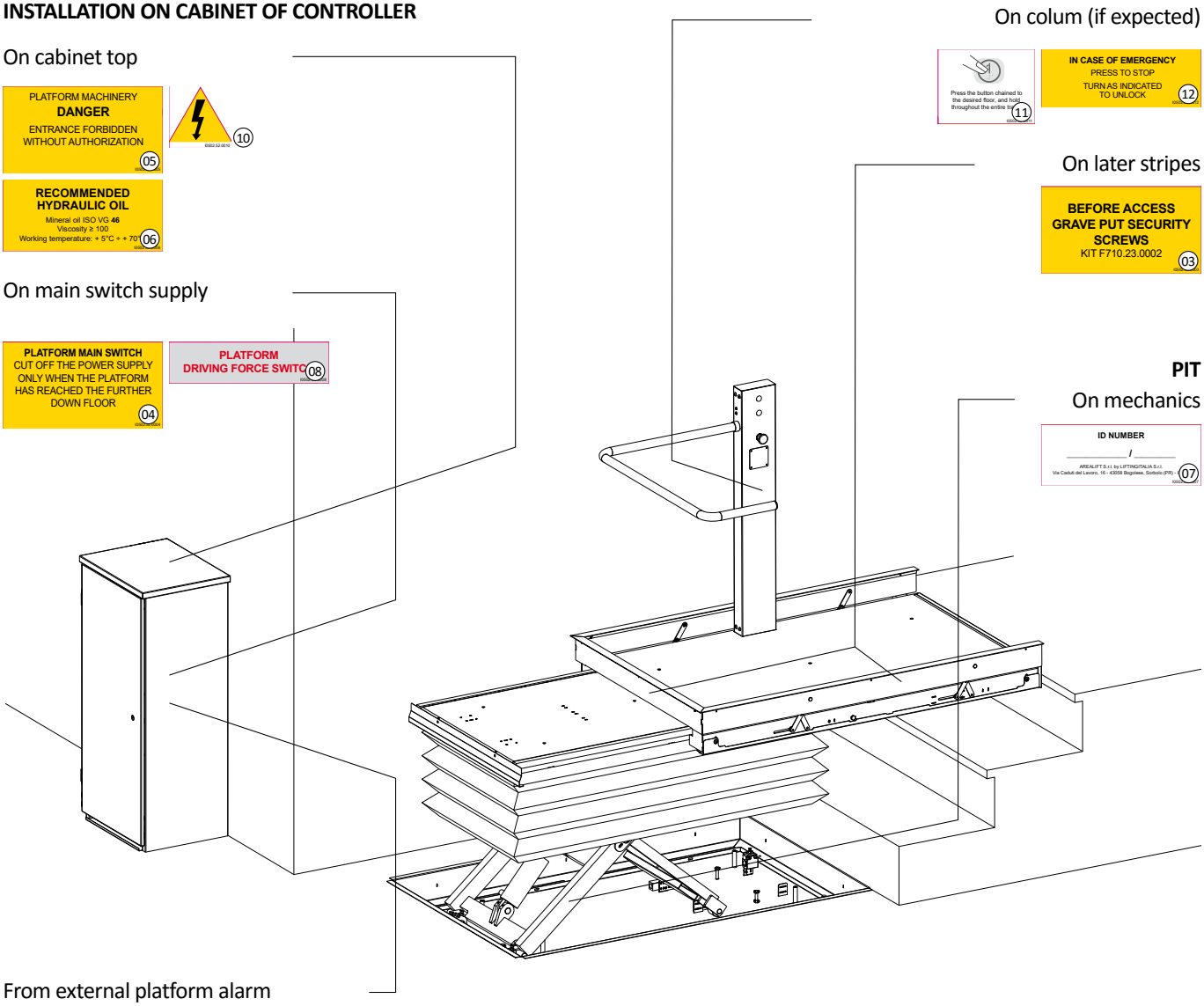
IN CASE OF EMERGENCY
PRESS TO STOP
TURN AS INDICATED TO UNLOCK
12

On later stripes

BEFORE ACCESS GRAVE PUT SECURITY SCREWS
KIT F710.23.0002
03

PIT
On mechanics

ID NUMBER
_____ / _____
AREALIFT S.r.l. by LIFTINGITALIA S.r.l.
Via Caduti del Lavoro, 16 - 43058 Bogolese, Sorbolo (PR)
07



OUT OF SERVICE
01

To apply near call push button in case of out of service system.

02

To apply near call push button in case of public buildings.

11 FINAL TEST AND ADJUSTMENT

At this point continue on general system checks, in order to pledge ride comfort and execute later safety test according to laws (see point 2 of handbook “Final checks").

The operations as described in this paragraph are to bene carried out by the qualified and authorized personnel.

11.1 GENERAL STEPS

Make sure the lift features match the contract details, the project drawings and the electrical scheme.
In particular:

- tension values in general and for each electrical device;
- duty load;
- speed;
- hydraulic unit features (load, tension, electric drive absorption, etc.);
- action of engine safety devices;
- platform micro-movement at floor;
- difference in height between emtpy car and full car when at stops;
- type and functioning of starting gate at upper floor;
- safety chain;
- safety distances;
- electrical insulation towards grounding, between operation circuit and driving force and between operation circuit and lighting.

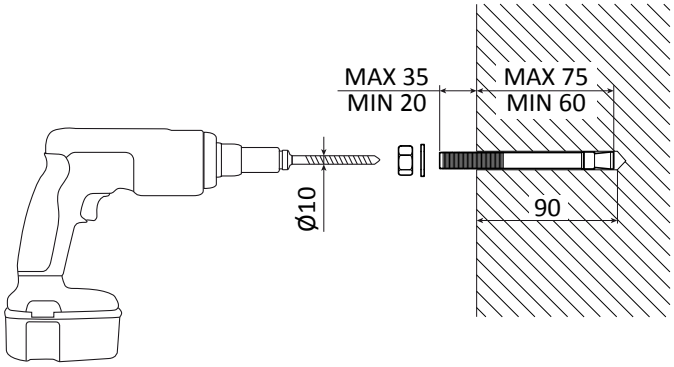
12 NOISE EMISSION

Platform noises sources are unit and creeping of guides on shoes, in particolar during rise and fall of full load.
Unit is always positioned inside fix column.
In different contexts analysed, the results were under 70dB(A).

Appendix. 1 ANCHOR BOLTS usage instruction

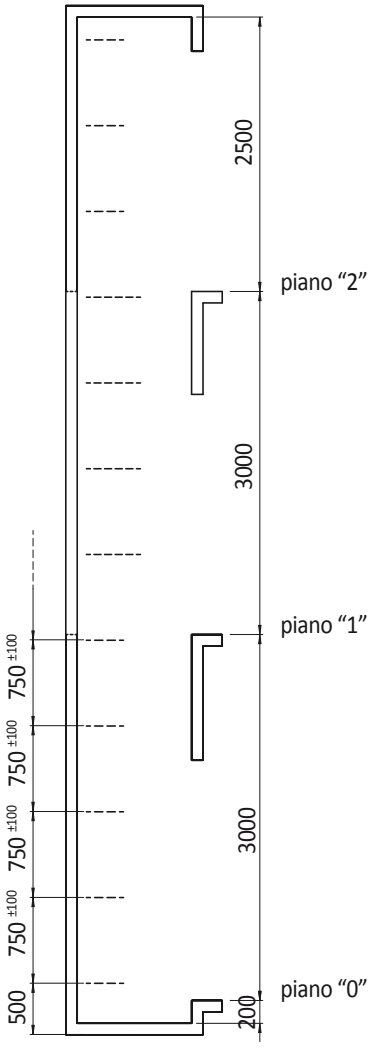
Appendix.1.1 CONCRETE SHAFT

Unless differently specified, all the anchor bolts are M10 and require holes to be arranged using the 10 mm drill bit, to the minimum 90 mm depth. The anchor bolt must be inserted in the hole up to 70 mm approximately.



Appendix.1.2 MASONRY SHAFT

The guide rail brackets assembly (shafts being constructed in either hollow or solid bricks), requires a certain gap reduction, to make up for the minor mechanical resistance of the walls.
The recommended gap is 750 mm, to be increased by 100 mm to avoid the guide rail junction, starting from the pit bottom ≤ 500 mm.
The number of bracket perimeters, with the standard values for pit (140÷200 mm), distance between floors (3000÷3200 mm) and headroom (2400÷2600 mm), is 4 for each stop.

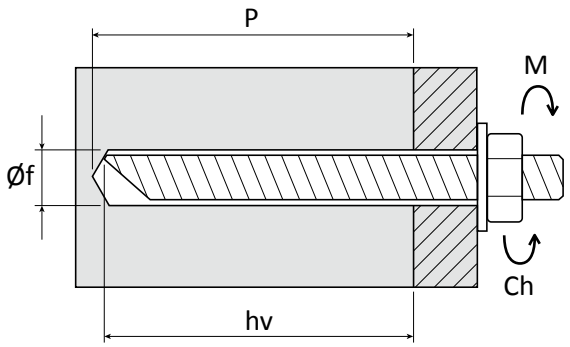


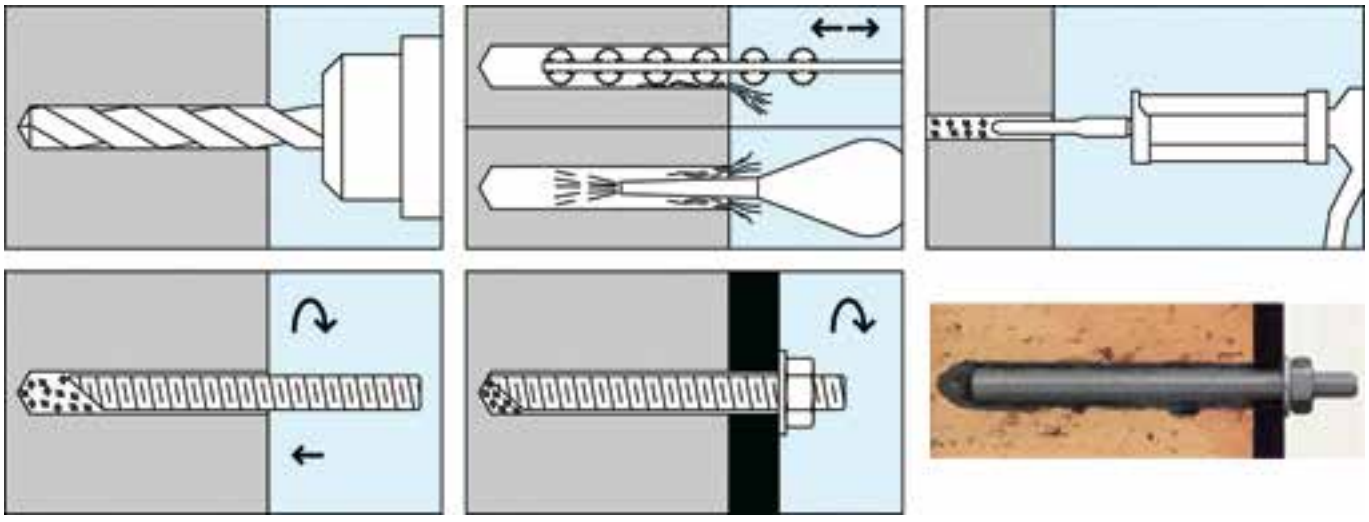
SOLID BRICKS

The special kit F350.23.0026V01 for chemical bolts application is composed of:
- n° 16 zinc coated THREADED BARS M10x110, 45° cut (anti rotation);
- n° 2 300 ml vinyl ester CARTRIDGES (styrene free), suitable for elevated loads and application in humid holes, to be used with standard caulking guns;
- n° 2 multipurpose MIXERS ø9 mm, additionally to the 4 mixers foreseen for the cartridges.

Each kit is sufficient for 8 brackets, required for approx. 1 stop.
For instance, 3 F350.23.0026V01 kits are required for a 3 stops' lift, the brackets being positioned as per the sample drawing.
The following procedure explains the correct use of chemical bolts in case of solid bricks:

Bolt features			
Bar threading	Ø b	mm	M10
Total bar length	L	mm	110
Space to be closed	S	mm	max 15
Hole preparation			
Nominal bit diameter	Ø f	mm	10
Drilling depth	P	mm	≥ 140
Bar insertion depth	hv	mm	≈ 75
Resin filling volume			≈ 3/4 hole (≈ 18÷28 ml)





HOLLOW BRICKS

The special kit F350.23.0025V01 for chemical bolts application is composed of:
- n° 16 zinc coated THREADED BARS M10x110, 45° cut (anti rotation);
- n° 2 300 ml vinyl ester CARTRIDGES (styrene free), suitable for elevated loads and application in humid holes, to be used with standard caulking guns;
- n° 2 multipurpose MIXERS ø9 mm, additionally to the 4 mixers foreseen for the cartridges;
- n° 2 NET COVERED bolts ø16 mm, length 1 mt each.

Each kit is sufficient for 8 brackets, required for approx. 1 stop.
For instance, 3 F350.23.0025V01 kitskits are required for a 3 stops' lift, the brackets being positioned as per the sample drawing.
The following procedure explains the correct use of chemical bolts in case of hollow bricks:

Bolt features			
Net bolt	Ø x L	mm	16 x 100
Bar threading	Ø b	mm	M10
Total bar length	L	mm	110
Space to be closed	S	mm	max 15
Hole preparation			
Nominal bit diameter	Ø f	mm	16
Drilling depth	P	mm	≥ 140
Bar insertion depth	hv	mm	≈ 75
Resin filling volume			≈ 3/4 del foro (≈ 18÷28 ml)