Frigerio S.p.A. CARPENTERIE

Instructions and standards for the use of mobile scaffolds equipped with wheels

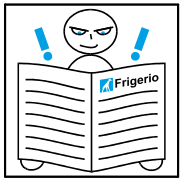
EXPORT
EXPORT HD
EXPORT 3001

Mandatory instructions for assembly, use, movements and disassembly of the scaffold fitted with wheels.

This booklet should always be attached to the scaffold in order to be submitted to competent authorities, if necessary.

November 2021

Instructions for the use of EXPORT scaffolds



Attention: Mobile scaffolding towers can only be assembled and disassembled by people who are familiar with use and assembly instructions and under the control of a responsible supervisor.

EXPORT maximum weight capacity: 2 kN/m² uniformly distributed (Class 3)
4.25 kN = **430 KG** uniformly distributed
not cumulative on different platforms

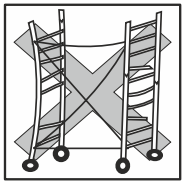
Accesso: XXCD (integrated vertical ladder, optional inclined ladder)

Base dimensions: 2,00 x 1,20 mt.

Maximum height at the platform: 18,45 m. mandatory anchoring as per DL.81
11,40 m. not anchored indoors as per EN 1004
7,80 m. not anchored indoors-outdoors as per EN 1004

Initial operations

The equipment must undergo an annual inspection and the register at the back of this booklet must be completed.



Before erecting the scaffold, it would be better to check the good state of the structure, that is intactness and the perfect functionality of its elements.
In particular, check:

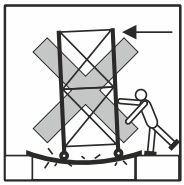
- The original wheels suitable for the use are not damaged, they rotate and the brakes are in working order.
- All the frames and tubes are straight and free of dents; the frame of the platforms is perfect and the wooden boards are well-secured.
- The fastening pawls of the tie rods are intact and unlocked.
- In case, clean and/or lubricate where required.

No damaged or inappropriate parts should be used.

Make sure that there are all the elements of the scaffold, looking at the tables of the components reported on the next pages; in the event that some elements are missing, it is forbidden to replace them with other elements which are not manufactured by FRIGERIO.
(All parts composing EXPORT scaffold are marked by FRIGERIO and MADE IN ITALY)

Make sure that the surface, on which the scaffold shall be erected, is levelled and it is not soft. If necessary, use adequately large boards to prevent any collapses of the structure.

Make sure that there is no wind or destabilising blasts of air.



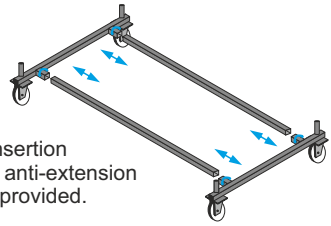
Make sure that the erection of the scaffold is not obstructed by any structures situated in air, such as gutters, cantilevered balconies, suspended cables, etc.

No works should be carried out near electrical lines, at a distance lower than five meters. (Consider also any oscillations of cables due to the wind)

To allow an easier and safer assembly, the scaffold should always be erected at least by two people, following the procedure indicated here below.

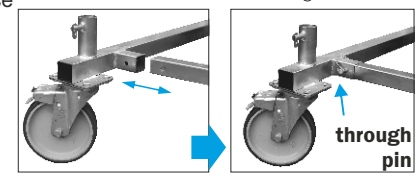
Only people under good psychophysical conditions can access to raised platforms.

Assembly of the Base Section (update 2021)



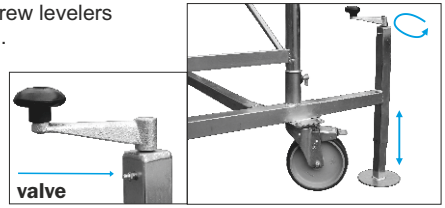
The base is composed of 2 bases with wheels + 2 horizontal cross sections with quick coupling + 4 through-pins

1) For both the horizontal cross sections, insert one end into the insertion compartment provided on a base with wheels and the other end into the insertion compartment provided on the other base with wheels, then make sure the anti-extension lock activates on each joint by inserting all the through-pins into the holes provided.
2) Before continuing, it is necessary to carefully level the entire base with a level (Note: When working on sloped or uneven ground, the wheels must in any case rest on the ground, therefore any gaps must be filled with suitable shims such as wooden planks beyond that, using dedicate screw stabilisers/levellers)

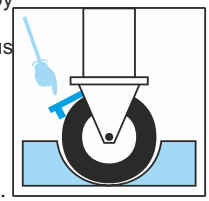


Stabilisers/screw levelers (opzional)
The EXPORT scaffolding allows the use of special stabilisers/screw levelers PEX STAB V to compensate slopes or unlevenness up to 27 cm.

- The levellers must not be pulled out beyond the "STOP" mark indicated on the horizontal tube of the leveller,
- Levelers must not be used to raise the tower, but only to level it.
- Before use, lubricate the leveller using the specific lubrication valve.



3) Insert the first pair of EXP HDSPALLA vertical uprights in the special base pins and tighten all the base bolts.
4) Join the two EXP HDSPALLA vertical uprights with a pair of PEX DAV horizontal rails by setting the pawls to face the scaffolding outwards.
5) Consolidate the base section by hooking 2 P TIR L tie rods to the pawls on both sides thus forming a double X.



Before to climb
- Brake the wheels pressing the foot on the lever will brake the wheels,
- Verticality is verified with a spirit level or plumb line and must not be greater than 1°,
- Always mount the stabilising brackets as per the configurations provided in these pages.

Stabilisers

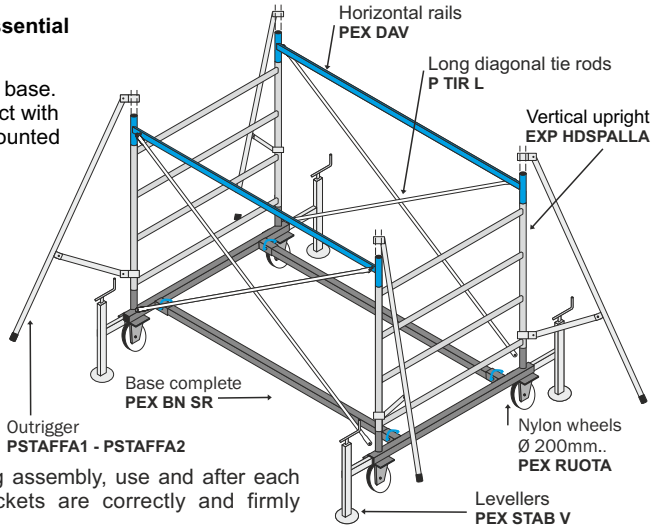
A proper assembly of the brackets is essential for anti-overturning safety purposes!

Le staffe vanno montate a 45° rispetto alla base.
If any works should be carried out in contact with a wall, only the contact brackets can be mounted in parallel with the wall.

The clamp of the bracket must be hooked on to the shoulder upright.

To avoid vertical slipping, the upper clamp of the bracket must be mounted underneath a rail or a crosspiece.

The clamps must be firmly tightened by means of grippers.
The brackets must be well pointed to the ground, which must not be slippery.



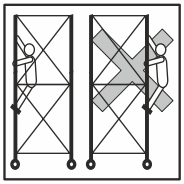
Before climbing on the scaffolding, during assembly, use and after each movement, always check that the brackets are correctly and firmly positioned.

Assembly of Upper Sections

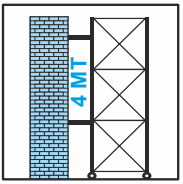
1) Assemble a work platform on which you can stand to easily start assembly of the next section.
2) Insert two EXP HDSPALLA intermediate uprights into the rails of the current section [See P.S.A. page 15] and join them with two other PEX DAV horizontal rails.
3) Consolidate the span by installing n°2 P TIR L diagonal tie rods positioned at X on each side.
4) Install a new work platform on which you can stand to easily start assembly of the next section (if not available, retrieve the work platform below).
5) Repeat operations from point 2 to point 4 until the last section is installed.

Recommendations for a safe assembly at heights more than 2 meters:

Always remain inside the tower.
The operator must go up and down inside the scaffold, using the vertical uprights' anti-slip steps (which constitute a standard rung ladder, having a pitch of 30 cm), or any reclimbing small ladders, which can be supplied on demand. After having overcome the platforms, make sure that the trap door closes. Always work on a platform, protected by a protective rail (alternatively, secure yourself by an anti-falling system fastened to a fixed part).



Anchor the scaffold.
Anchor the scaffold, when possible.
The anchorage should be carried out near rails .
Use one of the anchoring systems indicated.



To erect the elements, it is recommended to raise them by means of a rope tightly tied; this operation should only be performed inside the scaffold or the extended base (area including the stabilisers).
Nobody should stay under suspended loads.

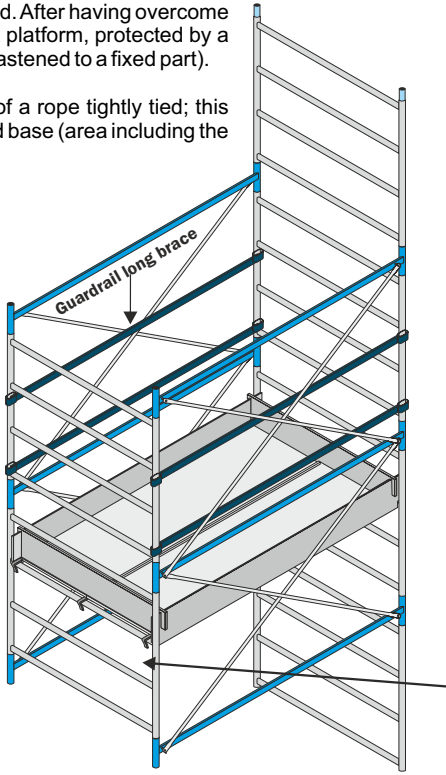
Platforms

Every platform consists of two half-planes to be placed side by side, one of them is equipped with a trap door for the passage.
The working platform should be equipped with jointed toe boards: firstly place the long boards and then the short ones (figure on this side).
Take care that they do not fall from on high while handling them or because of an improper assembly**.**

EXPORT' s platforms have been designed by a registered engineer and tested according to EN 1004.

Guardrail long brace

The guardrail long braces (available on request) must be fitted whenever you are working or moving on a work platform as shown in the following configurations for use.
The guardrail long brace is mounted by hooking the connecting clamps on the vertical pipes of the vertical uprights or the horizontal rails on the same section.



To obtain a complete guardrail with a standard height it is necessary to install n°2 PEX PROTRAV guardrail long braces for each side:

One long brace as a guardrail under the 4th step beyond the work platform so that it is positioned at a distance between 0.95m and 1.10m above the work platform, and other acting as an intermediate handrail resting on the 2nd step beyond the work platform, so that it is positioned at a distance of approximately 0.58m above the work platform (see figure above).

N.B. On each side it is possible to avoid installation of one of the two PEX PROTRAV guardrail long braces if the resulting position required has the same correspondence as a PEX DAV horizontal rail element.

Assembly and disassembly operations must always be carried out:

By at least two operators equipped with a rope for lifting the elements and with the appropriate PPE required: Approved helmet, anti-fall harness with energy-absorbing lanyard, positioning belt with lanyard, safety shoes and gloves (see page 15).

IMPORTANT - During assembly and disassembly of POKER and POKER HD scaffolding:

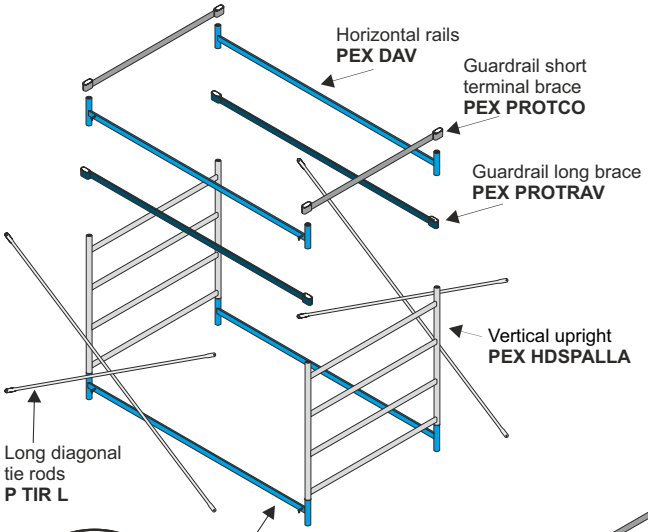
Every time the operator is not on a surface with standard protective frames (n°4 PEX PROTRAV guardrail long braces) and the distance between his/her feet and the lower platform is greater than 2m, the use of a suitable anti-fall safety system is mandatory (CE-standard PPE see page 15).

Assembly of the Terminal Section

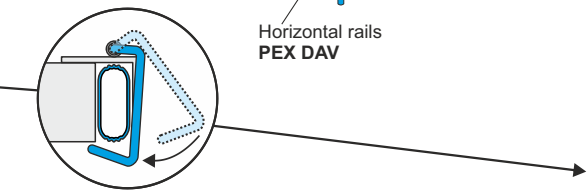
The terminal section is equivalent to an intermediate section but with the addition of n°1 PEX PROTCO guardrail short terminal brace on each short side of the scaffolding to ensure the minimum standard height of the guardrail, and n°1 PEX PROTRAV guardrail long brace.

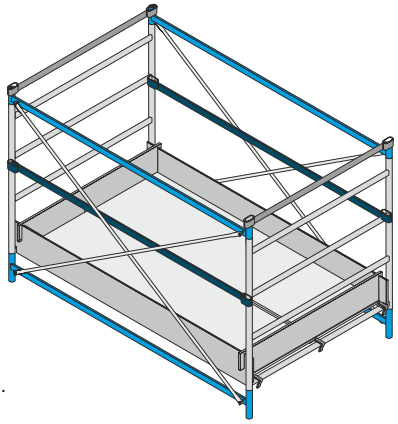
When you reach the desired height, mount the terminal section as shown in the drawing:

1) Insert the two EXP HDSPALLA vertical intermediate uprights into the rails of the current section [See P.S.A. page 15], and install the next two PEX DAV rails in the terminal position.
2) Consolidate the section by hooking n°2 P TIR L rods to the pawls on both sides thus forming a double X.
3) Install the PEX PROTCO guardrail short terminal brace on both short sides of the scaffolding by tightening the clamps on the vertical pipe just above the last PEX DAV rail.
4) Then install the PEX PROTRAV guardrail long brace on both long sides of the scaffolding, resting them on the 2nd step beyond the work platform, so that they are positioned at a distance of approximately 0.58m above the work platform by manually tightening the clamps on the vertical tubes.



N.B.
If you intend to work on work platforms that are mounted at intermediate heights of the scaffold, it is necessary to install all the PEX PROTRAV side shields (available on request), which always provide for regulatory protection and complete toeboards.





The anti-overturning safety devices (n. 2 across for every platform) should be assembled on the platforms.

Make sure of their correct working position (see the box above).

EXPORT CONFIGURATIONS OF USE

according to D.L.81 Italian Regulation

The configurations reported on this page provide the mandatory use of the scaffold **anchored** to some fixed elements (page 12) as well as the mandatory use of an appropriate **anti-falling** safety system (P.P.E. in compliance with EC standards see page 15). (Anti-falling harness sliding on a rope, which can be supplied on demand)

Code			EXP-HD 02	EXP-HD 03	EXP-HD 04	EXP 05	EXP 06	EXP 07	EXP 08
USEFUL WORKING HEIGHT		m	3,80	5,00	6,20	7,40	8,60	9,80	11,00
TOTAL HEIGHT		**m**	**2,85**	**4,05**	**5,25**	**6,45**	**7,65**	**8,85**	**10,05**
PLATFORM HEIGHT		m	1,80	3,00	4,20	5,40	6,60	7,80	9,00
EXP-HDSPALLA	Vertical upright 4 steps	8,2	4	6	8	10	12	14	16
PEX DAV	Horizontal rails	3,0	4	6	8	10	12	14	16
P TIR L	Long diagonal tie rods	1,1	8	12	16	20	24	28	32
PEX BN SR	Base without wheels	20,6	1	1	1	1	1	1	1
PEX RUOTA	Nylon wheels Ø 200mm.	2,5	4	4	4	4	4	4	4
P STAFFA 1	Outrigger - Tipe 1	4,9	0	0	0	4	4	4	4
P STAFFA 2	Outrigger big - Tipe 2	7,8	0	0	0	0	0	0	0
PEX PIANO BW	Trapdoor work platform with toeboard	39,0	1	1	1	1	1	1	1
PEX PROTCO	Guardrail short terminal brace	2,0	2	2	2	2	2	2	2
PEX PROTRAV	Guardrail long brace	3,2	2	2	2	2	2	2	2
Total weight		kg	133	159	186	232	259	285	312

N.B. Each work platform consists of 1 platform with trapdoor, 1 platform without trapdoor, 2 short toeboards and 2 long toeboards.

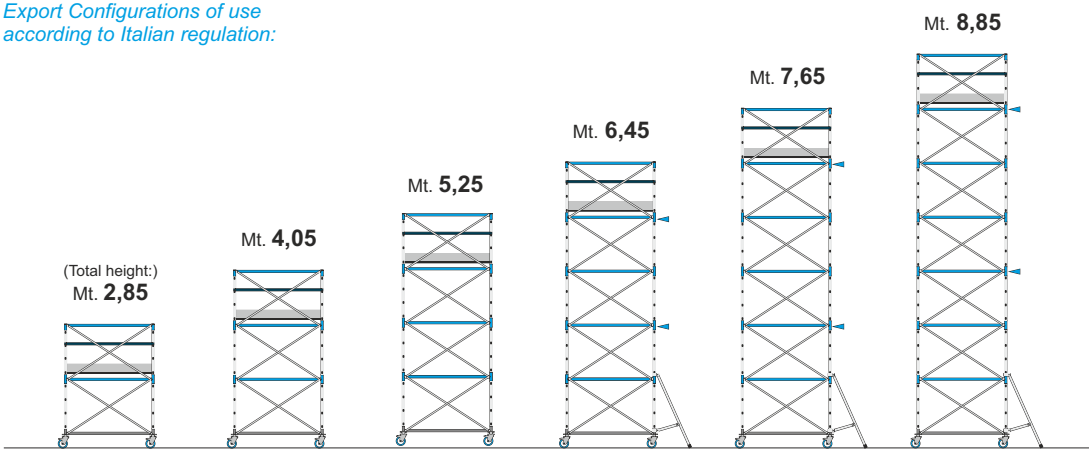
(◄) Anchoring mandatory

Useful working height: + 2 m.

Total height: + 1.05 m.

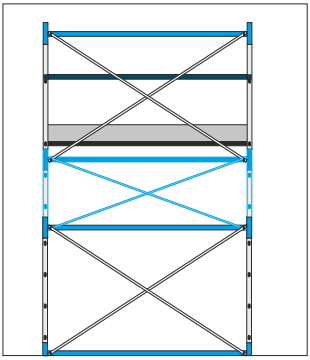
Height at the platform

Export Configurations of use according to Italian regulation:



EXP 09	EXP 10	EXP 11	EXP 12	EXP 13
12,20	13,40	14,60	15,80	17,00
11,25	**12,45**	**13,65**	**14,85**	**16,05**
10,20	11,40	12,60	13,80	15,00
18	20	22	24	26
18	20	22	24	26
36	40	44	48	52
1	1	1	1	1
4	4	4	4	4
4	4	0	0	0
0	0	4	4	4
1	1	1	1	1
2	2	2	2	2
2	2	2	2	2
339	365	403	430	457

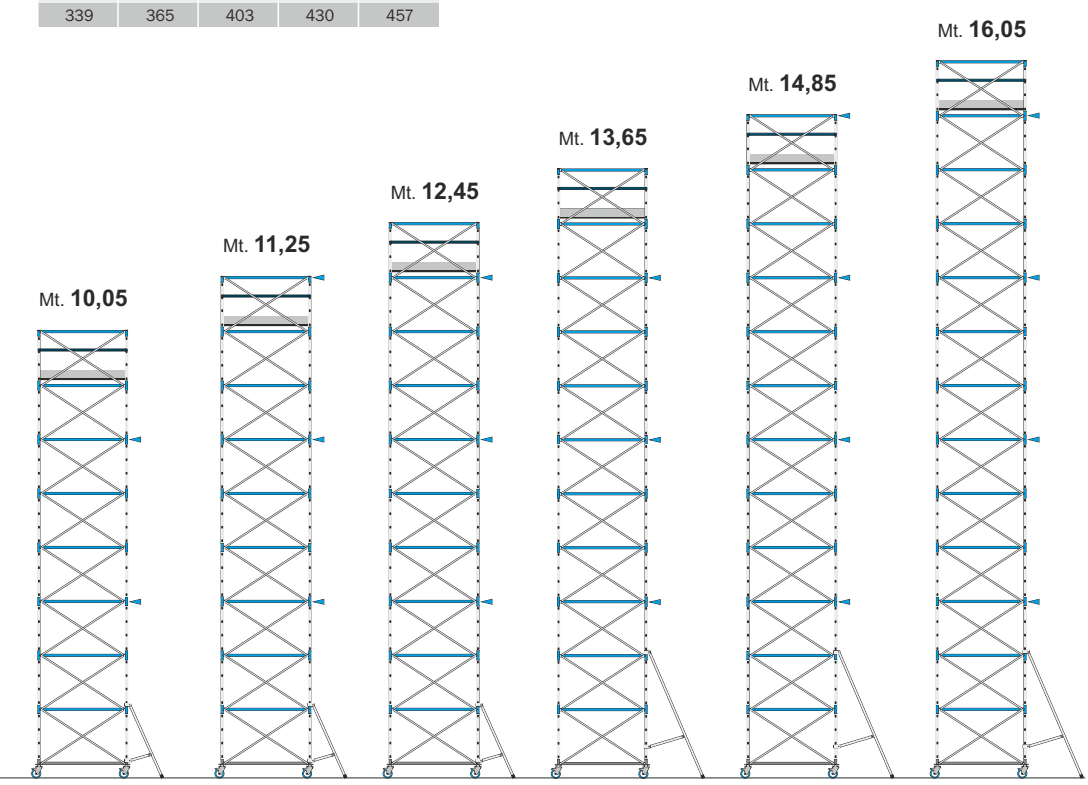
Use of the midspan



The EXP HD1/2CA midspan must always be installed under the last section and cannot be used to raise the tower beyond the measurements indicated in the booklet, but to reach reduced intermediate heights of 60 cm if there are vertical dimensions.

The midspan is composed of 4 short tie rods per PEX 1/2TIR midspan + n°2 PEX 1/2SPALL half uprights + n°2 PEX DAV horizontal rails.

N.B. It is recommended to use only 1 midspan per tower



EXPORT HD CONFIGURATIONS OF USE

according to EN-1004 European Regulation

The configurations reported on this page allow to use the scaffold **not anchored.**

EXPORT HD scaffold shows the same structural features of standard EXPORT, the only difference is the following one: there cannot be a distance higher than 3.90 m. (13 small traverses) and lower than 2.10 m. (7 small traverses) between a platform and the next one, in order to use the tower not anchored.

Code			EXP-HD 02	EXP-HD 03	EXP-HD 04	EXP-HD 05	EXP-HD 06	EXP-HD 07	EXP-HD 08
USEFUL WORKING HEIGHT		m	3,80	5,00	6,20	7,40	8,60	9,80	11,00
TOTAL HEIGHT		**m**	**2,85**	**4,05**	**5,25**	**6,45**	**7,65**	**8,85**	**10,05**
PLATFORM HEIGHT		m	1,80	3,00	4,20	5,40	6,60	7,80	9,00
EXP-HDSPALLA	Vertical upright 4 steps	8,2	4	6	8	10	12	14	16
PEX DAV	Horizontal rails	3,0	4	6	8	10	12	14	16
P TIR L	Long diagonal tie rods	1,1	8	12	16	20	24	28	32
PEX BN SR	Base without wheels	20,6	1	1	1	1	1	1	1
PEX RUOTA	Nylon wheels Ø 200mm.	2,5	4	4	4	4	4	4	4
P STAFFA 1	Outrigger - Tipe 1	4,9	0	0	0	4	4	4	4
P STAFFA 2	Outrigger big - Tipe 2	7,8	0	0	0	0	0	0	0
PEX PIANO BW	Trapdoor work platform with toeboard	39,0	1	1	1	2	2	2	3
PEX PROTCO	Guardrail short terminal brace	2,0	2	2	2	2	2	2	2
PEX PROTRAV	Guardrail long brace	3,2	2	2	2	6	6	6	10
Total weight		kg	133	159	186	284	311	337	416

N.B. Each work platform consists of 1 platform with trapdoor, 1 platform without trapdoor, 2 short toeboards and 2 long toeboards.

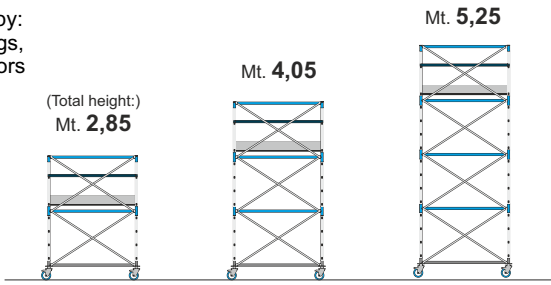
Each intermediate work platform must be assembled with toeboards and correctly mounted PEX PROTRAV guardrail long braces (see page 4).
Any internal ladders can be added to the EXPORT HD, thus transforming it into EXPORT 3001 (see following pages).

When the anchorage of Export mobile scaffold is mandatory:
- When the tower is not equipped with the platforms required according to the HD configurations reported on this page.
- When the height at the platform of the tower exceeds 12 m. (EXP-10) indoors.
- When the height at the platform of the tower exceeds 8 m. (EXP-07) outdoors or in presence of wind *.
- When there is wind which exceeds the minimum soft breeze.
- When the scaffold is left unattended.
- Where possible, anyway mobile scaffolding towers used outside buildings should be safely fastened to the building or to any other fixed structure.

* You should avoid any additional loads of wind generated by: tunnel effect of buildings open upwards, not coated buildings, on the corners of buildings, blasts of air caused by main doors left opened …

(◄) **Anchoring mandatory**

(◅) **Anchoring mandatory outdoors**



DECLARATION OF CONFORMITY

Hereby, we declare the EXPORT scaffold erected on base has been manufactured in compliance with the D.L.81 dated April 9th 2008.

Furthermore, we declare this scaffold, in the EXPORT HD configuration, complies with EN 1004 European regulation.

In that regard, we declare that Export scaffold has passed the tests provided by the Ministerial Decree on March 27th, 1998 (O.G. n. 102 on May 15th, 1998). The tests have been carried out by the Laboratory of Material Tests of the Polytechnic in Milan, as indicated in the test certificate n. 2009/514 issued in Milan on March 3rd, 2009.

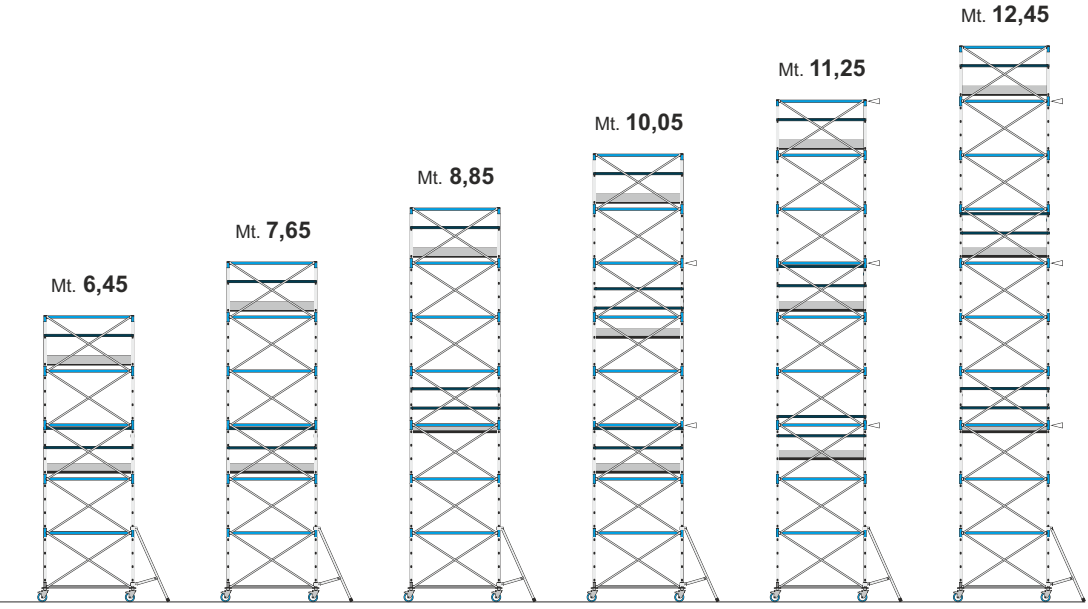
FRIGERIO CARPENTERIE S.p.A.

EXP-HD 09	EXP-HD 10
12,20	13,40
11,25	**12,45**
10,20	11,40
18	20
18	20
36	40
1	1
4	4
4	4
0	0
3	3
2	2
10	10
442	469

Useful working height: + 2 m.

Total height: + 1.05 m.

Height at the platform



EXPORT 3001 CONFIGURATIONS OF USE

according to EN-1004 European Regulation

The configurations reported on this page allow to use the scaffold **not anchored.**

EXPORT 3001 scaffold shows the same structural features of standard EXPORT HD, the only difference is the following one: there cannot be a distance higher than 3.90 m. (13 small traverses) and lower than 2.10 m. (7 small traverses) between a platform and the next one, in order to use the tower not anchored.

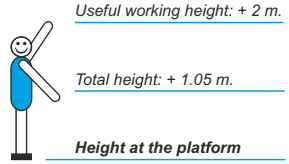
Code			EXP-3001 03	EXP-3001 04	EXP-3001 05	EXP-3001 06	EXP-3001 07	EXP-3001 08
USEFUL WORKING HEIGHT		m	5,00	6,20	7,40	8,60	9,80	11,00
TOTAL HEIGHT		**m**	**4,05**	**5,25**	**6,45**	**7,65**	**8,85**	**10,05**
PLATFORM HEIGHT		m	3,00	4,20	5,40	6,60	7,80	9,00
EXP-HDSPALLA	Vertical upright 4 steps	8,2	6	8	10	12	14	16
PEX DAV	Horizontal rails	3,0	6	8	10	12	14	16
P TIR L	Long diagonal tie rods	1,1	12	16	20	24	28	32
PEX BN SR	Base without wheels	20,6	1	1	1	1	1	1
PEX RUOTA	Nylon wheels Ø 200mm.	2,5	4	4	4	4	4	4
P STAFFA 1	Outrigger - Tipe 1	4,9	0	0	4	4	4	4
P STAFFA 2	Outrigger big - Tipe 2	7,8	0	0	0	0	0	0
PEX PIANO BW	Trapdoor work platform with toeboard	39,0	1	1	2	3	3	4
PEX PROTCO	Guardrail short terminal brace	2,0	2	2	2	2	2	2
PEX PROTRAV	Guardrail long brace	3,2	2	2	6	10	10	14
P 3001PIANO	Small base platform for ladder support	15,0	1	1	1	1	1	1
P 3001SCALA	3001 simple internal ladder with hooks	4,2	0	0	1	2	2	3
P 3001/07+06	3001/7+6 internal ladder in two extensions	8,8	1	0	1	1	1	1
P 3001/08+07	3001/8+7 internal ladder in two extensions	10,0	0	1	0	0	0	0
Total weight		kg	183	211	312	395	421	504

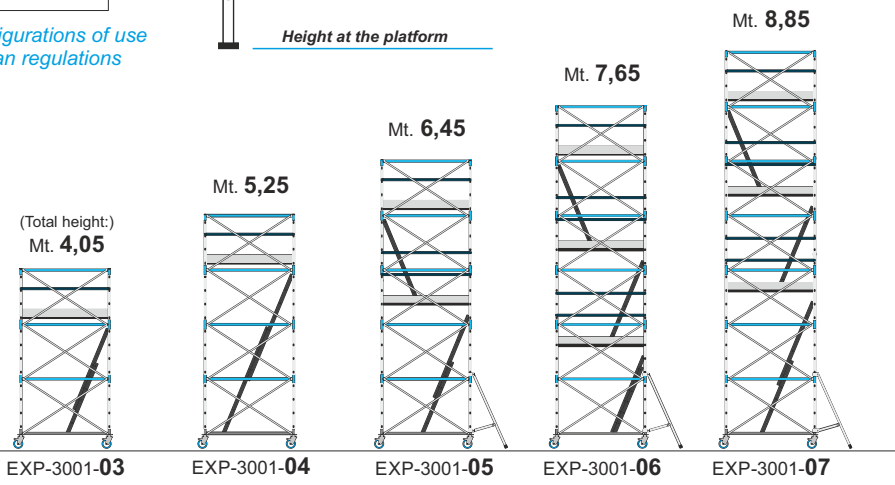
N.B. Each worktop consists of 1 platform with trapdoor, 1 platform without trapdoor, 2 short toeboards and 2 long toeboards.

(◄) Anchoring mandatory

(◄) Anchoring mandatory outdoors

***EXPORT 3001** Configurations of use according to European regulations*

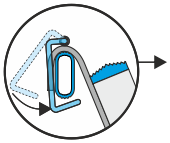


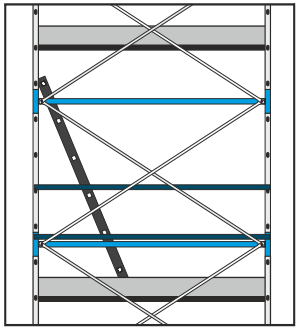


Assembly of inner ladders

Reclimbing inner ladders represent a safer and extremely convenient mean to use the scaffold.

EXPORT 3001 assembly is the same of standard EXPORT: the only difference is the following one: it is necessary to add inner rung ladders and intermediate platforms with relative guradrail brace and toeboard.



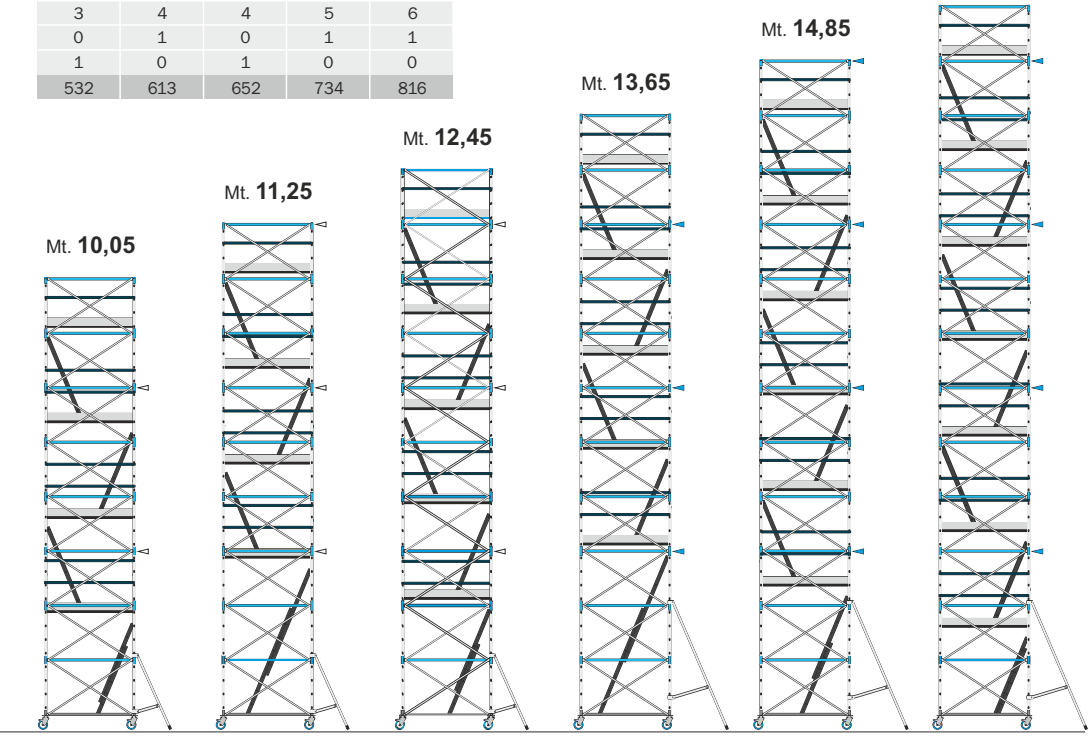


All ladders should be leant on a platform and connected under the trap door of the upper platform, on the underneath small traverse (See on the right). Check the correct working of the safety spring (See above).

When the base span has been assembled, take care of mounting the Base small Plane, that is the appropriate semi-plane which is designed to keep the ladder raised from the ground.

The first platform shall have to be assembled on the small traverse corresponding to the number indicated in the plan here below, so that all upper spans are equally spaced out each other.

EXP-3001 09	EXP-3001 10	EXP-3001 11	EXP-3001 12	EXP-3001 13
12,20	13,40	14,60	15,80	17,00
11,25	**12,45**	**13,65**	**14,85**	**16,05**
10,20	11,40	12,60	13,80	15,00
18	20	22	24	26
18	20	22	24	26
36	40	44	48	52
1	1	1	1	1
4	4	4	4	4
4	4	0	0	0
0	0	4	4	4
4	5	5	6	7
2	2	2	2	2
14	18	18	22	26
1	1	1	1	1
3	4	4	5	6
0	1	0	1	1
1	0	1	0	0
532	613	652	734	816



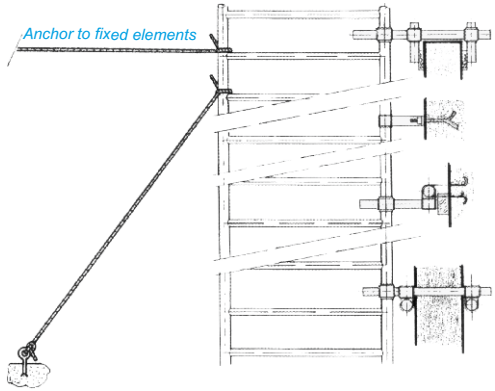
Sistemi di Ancoraggio

Mandatory anchorage of EXPORT scaffold, except for EXPORTHD configurations.

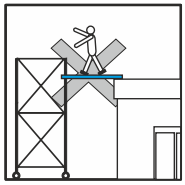
Anchor the scaffold approximately every 3.6 meters (3 vertical upright) even when it is not used, but erected.

Anchor the scaffold to the perimetrical uprights and provide a maximum stress of 60 Kg. for each anchorage. The anchoring operation should only be carried out by qualified personnel,

Anchoring by means of retention cables (or ground approach), the tensioning and nodes of which must always be checked, must be supported by a calculation report carried out by a qualified professional.

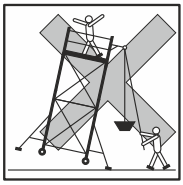


It is forbidden to create bridge connections between a mobile scaffolding tower and a building as well as between two different scaffold.
It is possible to access covers only by means of the LANDING KIT (available on request).



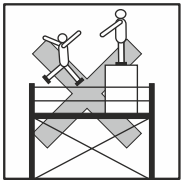
It is forbidden to lean or to use hoisting devices.

Except for the Frigerio pulley specifically designed for scaffolding with a lifting capacity not exceeding 50kg.



This operation must only take place inside the scaffold or the area included in the stabilising brackets.

It is forbidden to jump on platforms.
It is also forbidden to lean out of the lateral section and to push scaffolds from on high.
In case of scaffolds having different platforms, it is possible to work every time only on a platform.
It is forbidden to overload the platforms, exceeding the weight capacities indicated.
Never use on the platforms ladders or superstructures, which may increase their working height.
It is forbidden to assemble, to use and to move scaffolds in case of strong wind.



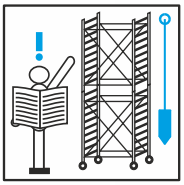
It is also forbidden to exceed 35kg of horizontal loading
per person, pushing with work tools, such as drills, etc.

Disassembly and storing.

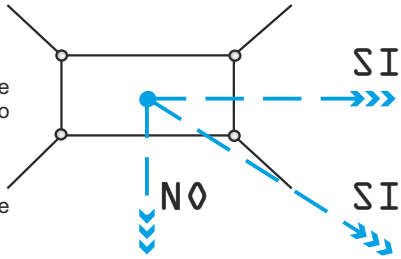
The disassembly should be carried out in reverse sequence in comparison with the one indicated in assembly instructions.

It is strictly forbidden to throw parts from on high, both for the safety of people being under and for the intactness of the elements.
All the elements of the scaffold shall have to be stored, thus avoiding their deterioration or loss as well as the improper use for other functions.

Before every use
(and after every movement) it is always necessary to check if the mobile scaffolding tower has been correctly and completely assembled according the instructions supplied in order to guarantee a perfect erection.
Verify also it is in the vertical position.
Check that no environmental modification affects the tower safety.
Before every use, it is necessary to ensure that all safety measures have been taken in order to prevent any accidental movement, applying locking brakes and stabilisers.

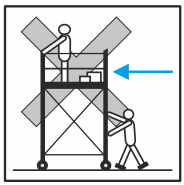


Instructions for movements



Movements are allowed only on perfectly smooth surfaces and in the total absence of wind. To move the scaffolding, lift the brackets, but no more than 12mm.

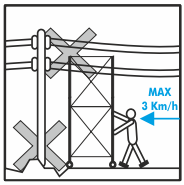
Movements can only occur longitudinally or diagonally.
With a unilateral extension of the base with wall support, movements are allowed only if performed parallel to the wall.



Mobile scaffolding towers can be moved only manually and exclusively on compact and smooth surfaces free of obstacles.

During the movement, there should not be any people or things on the scaffold.
Furthermore, there should not be any people at a distance of ½ the height of the scaffold.

During the movement, the standard speed of walking should not be exceeded.

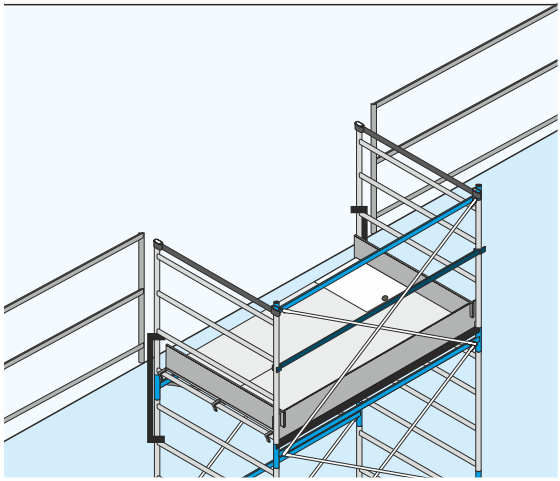


It is necessary to avoid any destabilising collision, therefore it is necessary to take the greatest care of any obstacles situated on the ground and in air. Always keep at least five meters away from high voltage lines.
The surface, on which the tower is moved, should be able to carry its weight.
After every movement, it is mandatory to brake and to stabilise the scaffold.
Check also its perfect verticality.

ADAPTATION KIT FOR LANDING ON ROOFS OR COVERS

The LANDING KIT is applicable only to decks used alongside the wall and allows to maintain the structural rigidity of the terminal section, even without lateral guardrail and the relative diagonal tie-rods, thus allowing a landing on the exit platform.

The LANDING KIT consists of two elements in galvanised steel, with clamps on both ends. These elements are applied on the side where the landing is to be carried out, on both the terminal rising shoulders by hooking the upper clamp of the element to the vertical tube of the terminal shoulder, and the other clamp to the vertical tube of the lower shoulder.

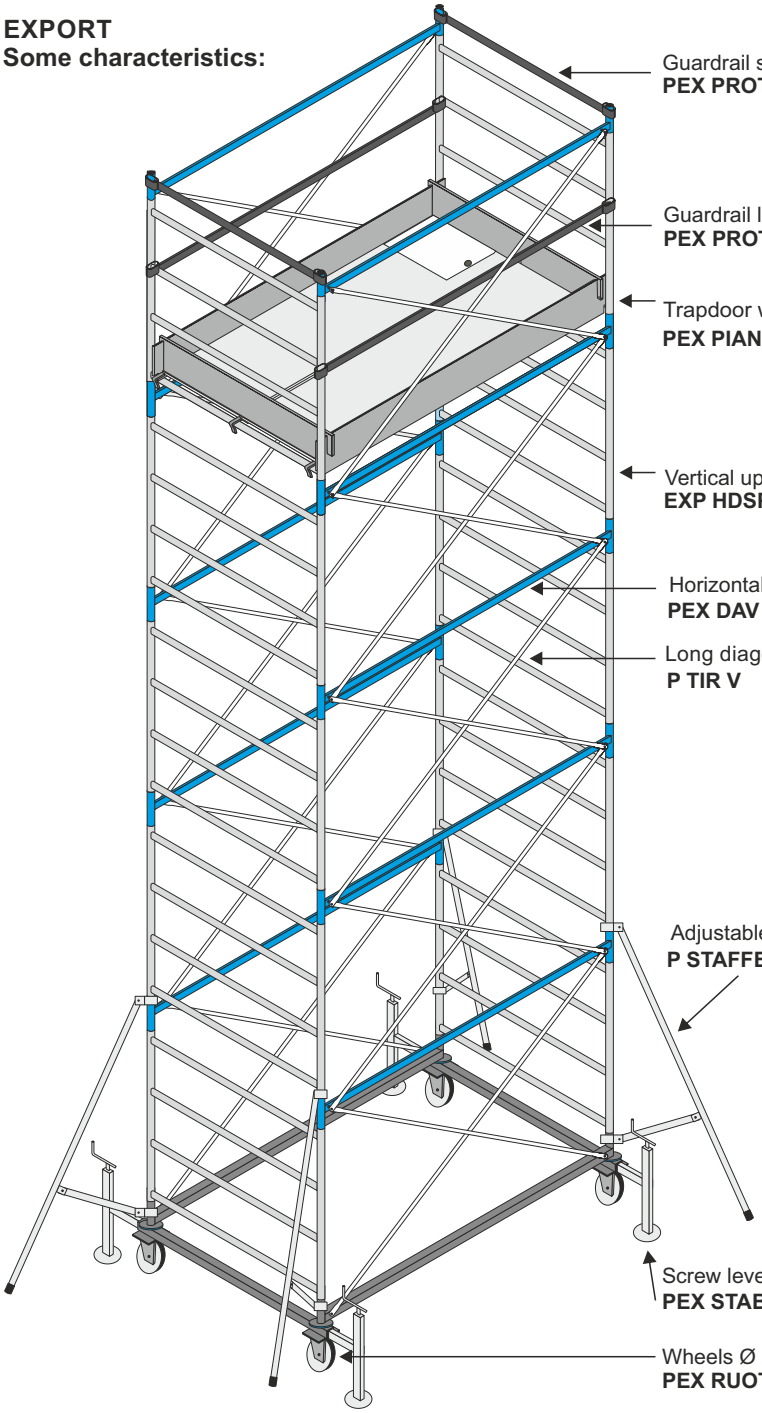


Legal requirement for use according to Legislative Decree 81:

The scaffold must be anchored to the building on which the landing is to be carried out.

- Access to raised floors is permitted only if there is suitable anti-fall protection.
- Detachment of the walkway boards from the masonry is allowed if not exceeding 20cm.
- The maximum difference in height between deck and landing surface must not exceed 25cm.
- Any differences in height can be filled using the EXPORT half-section or by actioning the levellers.

EXPORT
Some characteristics:



Guardrail short terminal brace
PEX PROTCO

Guardrail long brace
PEX PROTRAV

Trapdoor work platform with toeboard
PEX PIANO BW

Vertical upright
EXP HDSPALLA

Horizontal rails
PEX DAV

Long diagonal tie rods
P TIR V

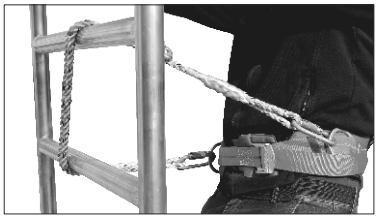
Adjustable outrigger
P STAFFE 1 / P STAFFE 2

Screw levellers to fill drops
PEX STAB V

Wheels Ø 200 fitted with a brake
PEX RUOTA

P.P.E. planned and fastening on the mobile scaffold

The personal protective equipment planned for the mobile scaffolds are:



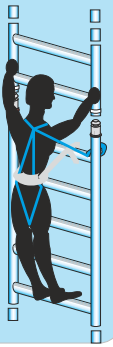
- Fall protection harness with a coupling point, back and sternal
- Rope with double connector and fitted with energy absorber,
- Positioning belt with rope and double clip,
- Certified helmet, safety shoes and gloves.

The personal protective equipment must be coupled to the already completely assembled sections of the structure and on pre-established points capable of supporting the operator's weight in the event of accidental fall:

When climbing up and down the structure or when still in work conditions at a height over 2 m off the ground or from the first lower platform with regulatory guardrail, the operator is obliged to secure himself by coupling the connector (of the rope connected to the harness) to the vertical tube of the vertical upright of any rung, as you can see in the side photo.

While still with hands free using the positioning belt, the relevant rope must at least encompass any two consecutive rungs.

"ELEVATED SAFETY POSITION ON VERTICAL ELEMENTS (P.S.A.)"



Whenever standing at heights over 2 mt from any floor, use the appropriate EC compliant P.P.E.: harness with shock absorber lanyard.

Many times, however, both hands are required to hook the upper elements, such as an upper shoulder; in these cases it is mandatory to use, together with the harness, also the positioning belt with the relative positioning lanyard

- Wear anti-fall harness and positioning belt with their lanyards.
- Climb on the vertical upright to the necessary height, using its rungs and securing yourself with the harness when climbing.
- Upon reaching the desired height, secure the positioning belt lanyard to the most convenient rung and, leaning back, push with your feet to tighten the lanyard.

Regulatory References:

- **L.D. 81** (9 April 2008): "Safety Consolidation Act"
- **Uni EN 1004** (2005): "Mobile work towers (mobile scaffolding) made of prefabricated elements. Materials, components, size, nominal loads and safety requirements".
- **M.D. 27** March 1998 (O.G. no. 102 dated 05/05/1998): "Recognition of compliance to the current norms, of safety means and systems for the building sector, and for the use of tower scaffolds on wheels".
- **EN 1298** (February 1996): "Mobile work towers. Rules and guidelines for the preparation of an instructions manual".

PERSONNEL TRAINING

As for scaffold assembly, dismantling or transformation personnel training, the employer must implement that foreseen by articles 36 and 37 of Legislative Decree 81/08 that clarifies the need to train, educate and inform workers on scaffolding for above ground work.
Circular no. 30/2006 issued by the Ministry of Employment also requires specific training for scaffolding installers.

ITALIAN REGULATION

Legislative Decrete no 81 dated April 9, 2008

Art. 111 - Employer obligations in using equipment for work above ground

1. The employer, when temporary work above ground cannot be performed in safety conditions and adequate ergonomic conditions from a place suited for this purpose, selects the most appropriate work equipment to guarantee and maintain safe work conditions, according to the following criteria:

a) priority to group protection measures over personal protection measures;

b) work equipment dimensions suited to the nature of the work to be performed, expected stress and circulation without risks.

2. The employer selects the most suitable type of access system to temporary workplaces above ground in relation to circulation frequency, altitude and duration of work. The adopted access system must permit evacuation in the event of imminent danger. The passage from an access system to platforms, scaffolds, catwalks and vice versa should not infer additional fall risks.
3. The employer ensures that a ladder is only used as an above ground workplace when the use of other work equipment considered safer is not justified due to the limited risk level and short-term use or site features that cannot be modified.
4. The employer ensures that access and positioning systems are used with ropes to which the worker is directly supported, only in circumstances in which, following risk assessment, work can be safely performed and the use of other equipment considered safer is not justified due to the short-term use and site features that cannot be modified. The employee ensures the use of a seat equipped with specific accessories according to the risk assessment results and, specifically, work duration and ergonomic restrictions.
5. The employer, according to the type of work equipment adopted based on the previous points, identifies measures to minimise worker risks, intrinsic to the equipment in question, installing, where necessary, fall protection devices. These devices must have a configuration and resistance to avoid or stop falls from above ground work sites and prevent, where possible, any worker injuries. Group protection devices against falls may only include interruptions in points where there are ladders or rungs.
6. For special work, the employer may require the temporary elimination of a group protection device against falls, adopting equivalent and efficient safety measures. Work is performed after adopting these measures. Once this special work is permanently or temporarily completed, the group protection devices against falls must be restored.
7. The employer only performs temporary work above ground if weather conditions do not put workers' safety and health in jeopardy.
8. The employer also prohibits workers assigned to above ground work from drinking or administering alcohol or hard liquor.

Art. 112 - Temporary structure appropriateness

2. Before reusing scaffolding elements of any type, they must be checked to eliminate those no longer deemed suitable as per annex XIX.

Art. 123 - Temporary structure assembly and dismantling

1. Temporary structures must be assembled and dismantled under the direct supervision of a work manager.

Art. 124 - Material storage on scaffolding

1. Storage on service bridges and scaffolding in general is prohibited except for the temporary storage of material and tools necessary for work.
2. The weight of the material and people must always be under the one permitted by the scaffolding's structural resistance; the space occupied by material must permit the movement and manoeuvres necessary for work.

Art. 126 - Guard rails

1. Scaffolding and service bridges, catwalks, walkways, over 2 metres off the ground, must be equipped with a sturdy guard rail in good conditions on all sides facing a void.

Art. 128 - Underbridges

1. Scaffolding and service bridges must have a safety underbridge, built like a bridge, at a distance not greater than 2.50 m.
2. Underbridge construction can be omitted for suspended bridges, for cantilevered bridges and when maintenance and repairs lasting under five days are performed.

Art. 138 - Special regulations

1. Throwing scaffold elements from above is prohibited.

Art. 140 - Mobile scaffolding

1) Mobile scaffolding must have ample bases to resist, with ample safety margins, the loads and oscillations they can be subject to during movements or due to wind and to avoid tipping (Carefully follow the assembly instructions. Ed.)
2) The surface in contact with wheels must be level; the scaffold load on the ground must be suitably divided with planks or other equivalent means.
3) Scaffold wheels must be securely locked with shims on both sides or equivalent systems.
4) Scaffold wheels must be anchored to the constructions at least every two floors; an exception is permitted for mobile scaffolding compliant with annex XXIII (European regulation compliance. Ed.)
5) Mobile scaffold verticality must be checked with a level or pendulum.
6) Scaffolds, excluding those used for work on power contact lines, should not be moved when holding workers or loads.

DICHIARAZIONE di CONFORMITA'

Hereby, we declare the EXPORT scaffold erected on base has been manufactured in compliance with the D.L.81 dated April 9th 2008.
Furthermore, we declare this scaffold, in the EXPORT HD and EXPORT 3001 configuration, complies with EN 1004 European regulation.
In that regard, we declare that Export scaffold has passed the tests provided by the Ministerial Decree on March 27th, 1998 (O.G. n. 102 on May 15th, 1998). The tests have been carried out by the Laboratory of Material Tests of the Polytechnic in Milan, as indicated in the test certificate n. 2009/514 issued in Milan on March 3rd, 2009.

FRIGERIO CARPENTERIE S.p.A.

DICHIARAZIONE DI CONFORMITA'

UNI EN 1004

Il Valutatore e il Fabbricante:

FRIGERIO CARPENTERIE S.P.A.
Via E. Fermi, 6
24050 ORIO AL SERIO (BG)

dichiarano che il nuovo trabattello descritto in appresso:

EXPORT

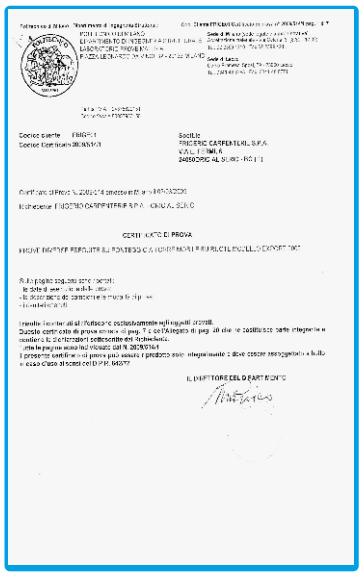
Modello
N° di serie
Anno di costruzione:

- è conforme alle disposizioni della direttiva UNI EN 1004;
- è conforme alle disposizioni dell'art 140 del Dlgs 81/08 Allegato XXIII;

Orio al Serio,

IL VALUTATORE
(Ing. De Sergio Luca)

IL FABBRICANTE
Rappresentante Legale



It should be noted that the above test certificate serves to verify the structural rigidity of the scaffold in its basic EXPORT HD version. Therefore, the same test also applies to the equipped version with the maximum number of EXPORT 3001 internal floors.

It is also noted that in order to comply with the aforementioned standards, the assembly and use instructions provided must be strictly observed.

User's liability:

The manufacturer is not liable for any damages to people or properties which may result from improper use of the scaffold, the total or partial disregard of the rules reported in this booklet or from the lack of periodic checks or maintenance operations due to any damages caused by the use or atmospheric agents. In that regard, it is recommended to carry out an accurate check of the scaffold's parts before every use (Art. 374 Decree by the President of the Republic 547 – User's liability) and the compliance with accident prevention regulations.

Accessori per adattamento ai grandi dislivelli

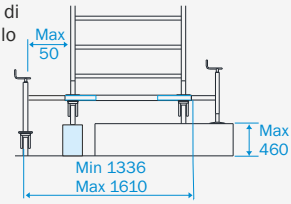
ATTENZIONE: Le soluzioni di livellamento proposte di seguito, superano l'altezza massima di 22 cm. prevista dalla norma europea EN1004 pertanto richiedono sempre l'ancoraggio del trabattello secondo norma italiana D.Lgs.n°81

LIVELLATORI A VITE SU RUOTA PER GRANDI DISLIVELLI - art. P LIV V RF

E' consentito installare e spostare il trabattello anche su superfici in forte pendenza o in presenza di grandi dislivelli fino a 46 cm con regolazione di precisione mediante martinetto a vite

- Inserire completamente il tubo orizzontale del livellatore nel profilo di base con ruote senza superare i 5 cm tra il livellatore ed il trabattello
- Regolare fino all'altezza desiderata, mediante martinetto a vite quindi colmare il vuoto sotto la ruota con spessori adeguati e frenare tutte le ruote.
- Proseguire ad innalzare il trabattello, come da istruzioni

I livellatori P LIV V RF possono essere utilizzati per trabattelli EXPORT fino all'altezza massima di mt. 8 al piano di lavoro

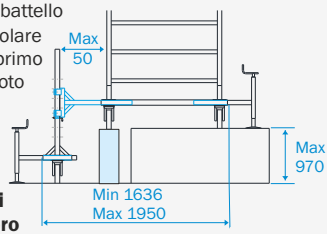


LIVELLATORI TELESCOPICI SU RUOTA PER GRANDI DISLIVELLI - art. P LIV I

E' consentito installare e spostare il trabattello anche su superfici in forte pendenza o in presenza di grandi dislivelli fino a 97cm. La regolazione si effettua a scatti di 8 cm. con fermo mediante spina passante e consentono aggiunta di stabilizzatori a vite art. PEX STAB V utili per ridurre il gioco ruota ed aumentare ulteriormente la stabilità.

- Inserire completamente i telaietti orizzontali nel profilo di base con ruote senza superare i 5 cm tra la gamba telescopica ed il trabattello
- Allentare i bulloni di bloccaggio della gamba telescopica e regolare lo sfilo fino all'altezza desiderata, quindi inserire la spina nel primo foro disponibile, stringere i bulloni di bloccaggio, colmare il vuoto sotto la ruota con spessori adeguati e frenare tutte le ruote.
- Se disponibili applicare gli stabilizzatori a vite art. PEX STAB V (vedi pag.3)
- Proseguire ad innalzare il trabattello, come da istruzioni

I livellatori P LIV I possono essere utilizzati per trabattelli EXPORT fino all'altezza massima di mt. 8 al piano di lavoro

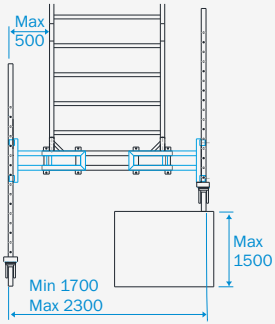


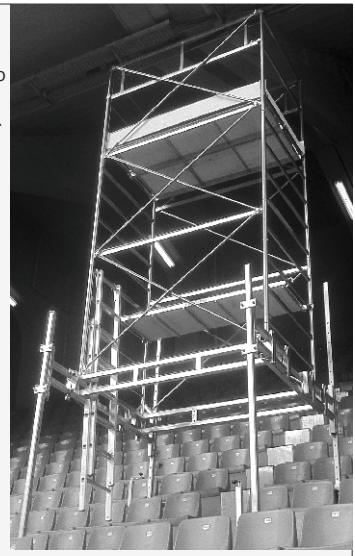
BASE SPECIALE CINEMA - art. P B CINEMA

Una base molto robusta completamente smontabile che garantisce la massima capacità adattamento in altezza ed in larghezza per consentire l'installazione e lo spostamento del trabattello su gradinate o grandi dislivelli con presenza di ingombri a terra come file di sedie in cinema, stadi, teatri o palazzetti dello sport.

- La larghezza della base può essere regolata fino ad un massimo di 50 cm. su entrambi i lati e l'altezza verticale fino a 1,5 mt. su ogni ruota.
- Misure d'ingombro minimo di base: cm 215 x 170.
- Dotata di n°4 stabilizzatori a vite art. PEX STAB V
- Peso totale: kg. 140.

- Inserire i telaietti orizzontali nel profilo di base con ruote fino alla distanza necessaria ma senza superare i 50 cm tra la gamba telescopica ed il trabattello
- Allentare i bulloni di bloccaggio della gamba telescopica e regolare lo sfilo fino all'altezza desiderata, quindi inserire la spina nel primo foro disponibile, stringere i bulloni di bloccaggio e frenare le ruote.
- Applicare gli stabilizzatori a vite art. PEX STAB V (vedi pag.3)
- Proseguire ad innalzare il trabattello, come da istruzioni in questo manuale.





La base P B CINEMA può essere utilizzata per trabattelli EXPORT fino all'altezza di mt. 12 al piano di lavoro

PERIODIC CHECKS To be completed 1 time a year with a ink pen, both in case of an OK check or otherwise, if necessary protect this page from dirt by applying a strip of transparent

Check date	Examined part	Check OK	Check NOT OK	Problem description	Name of the person performing the verification	Signature
Repair date	Type of repair			Name of the person performing the repair		Signature
27/09/2018	PEX SPALLA		X	Crepa laterale	Mauro Rossi	Matteo Milesi
28/09/2018	sostituzione morsetto			Matteo Milesi		Mauro Rossi

EXAMPLE

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