BRIO Modular Scaffolding

The highly flexible scaffolding system for all kind of applications

ULMA

IMPORTANT:

Any safety provisions as directed by the appropriate governing agencies must be observed when using our products.

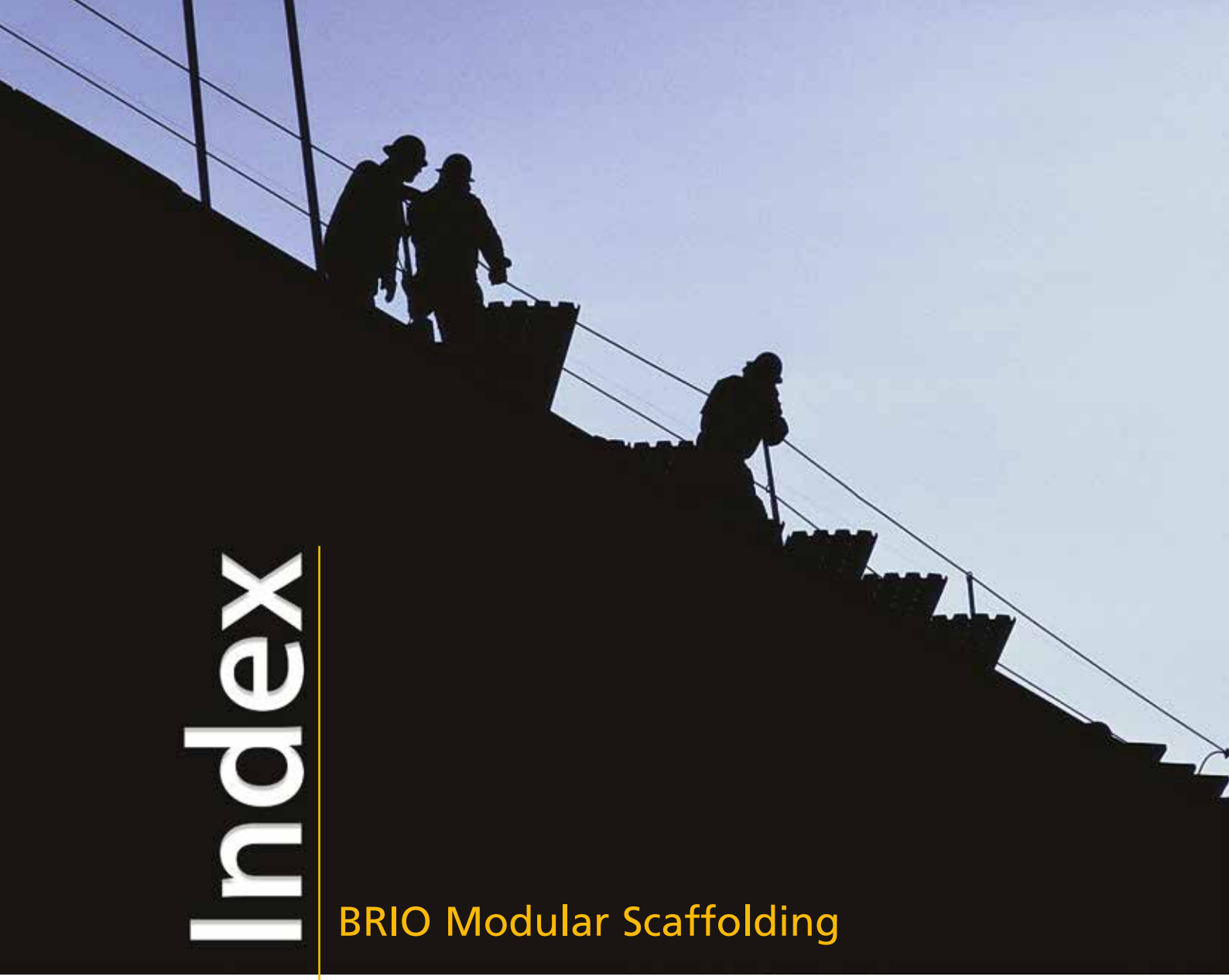
The pictures in this document are snapshots of situations at different stages of assembly, and therefore are not complete images. For the purpose of safety, they should not be deemed as definitive.

All instructions regarding safety and operations contained in this document, and the data on stress and loads must be respected. ULMA Construcción's Technical Department must be consulted any time that field changes alter our equipment installation drawings.

The loads featured in this document, related to the basic parts of the product, are approximate.

Our equipment is designed to work with accessories and parts produced by our company only. Combining such equipment with other brands is not only dangerous without having made all corresponding verifications, it also voids any or all our warranties.

The company reserves the right to introduce any modifications deemed necessary for the technical development of the product.



Index

BRIO Modular Scaffolding

Safety sign

Control sign

Warning sign

Information sign

Product description

The BRIO Modular Scaffolding meets the highest requirements of different configurations and applications arising in construction projects. It can be used as working area, protection, access or support, for both, new buildings as well as restoration projects.

Moreover, due to its versatility it also covers other fields such as industrial maintenance or leisure and entertainment.

The system is based on standards with collars spaced every 50 cm which have 8 holes to ease the assembly of all its system components, providing great stiffness and overall stability.

The BRIO scaffolding is certified according to the **European standards EN 12810-1/2 and EN 12811-1/2/3.**

Ministerial Authorisation no. (of the Italian Ministry of Labour and Social Affairs):
PROT. 15/VI/12246/14.03.01.01 "BRIO 102"
PROT. 15/VI/12245/14.03.01.01 "BRIO 70"

System features

Advantages

- **Certified scaffolding** according to European standards ensures highest product quality.
- The **connections** are easily assembled by only one scaffolder due to its mechanism of captive wedges forming rigid joints unaffected of vibrations, diminishing looseness and being capable of bearing high loads. The non-circular node prevents the standards from rolling around on the ground.
- **Quick and easy assembly** with reduced number of components and tools

1 Hook in the ledger.

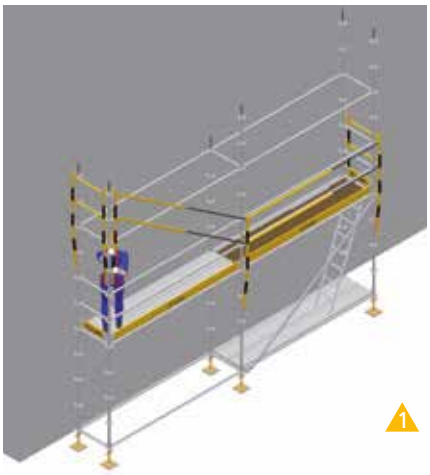
2 Insert the wedge.

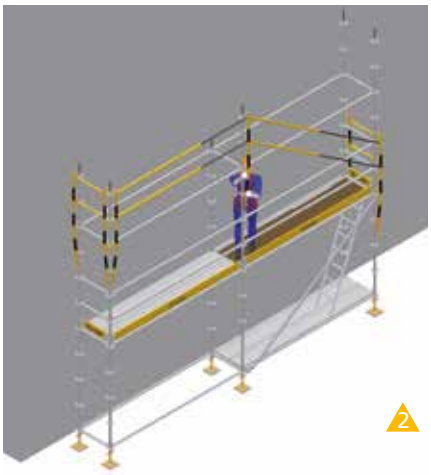
3 Fix the wedge.

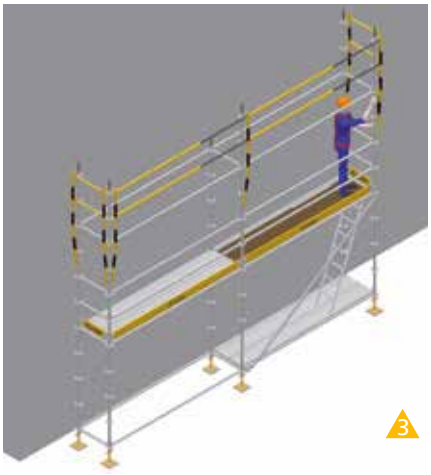
4 Standard and ledger are joined.

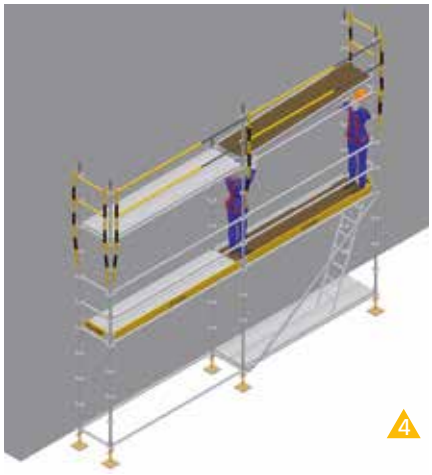
- **Versatility and flexibility** to adapt to any shape or to assemble many different configurations such as scaffolding towers, stair towers, temporary roofs, footbridges - with a minimal number of different components.

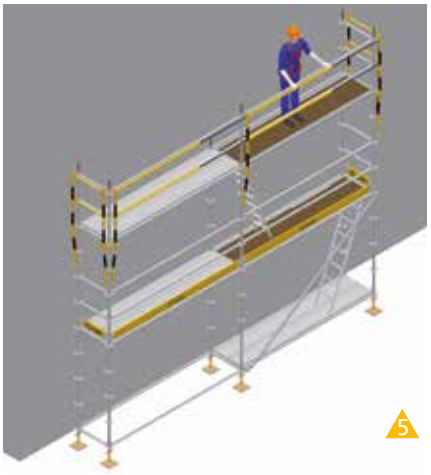
Safe assembly ensured by the use of a safety system consisting of **safety guardrail post and telescopic safety** ledger as means of collective protection. This system is easily assembled from the ground with its telescopic aluminium-steel ledgers thereby protecting the scaffolder from falls when accessing the upper level by ladders through the trapdoor platform.











▲ Assembly sequence of the safety system ▲

The safety system is verified by tests based on the standard EN 795 for protection against falls from height regarding anchor devices.

▲ Safety guaranteed in the assembly of BRIO scaffolding ▲

- **Safe working** due to the protection provided by guardrails and toeboards: They are installed at both sides, the outside and if necessary the inside. Toeboards prevent the falling of objects from height.

With the BRIO Modular Scaffolding any part of the structure where works are wanted to be carried out can be covered and protected.

In addition, access is completely secure, either through trapdoor platforms or with stairs attached to the scaffolding, each option depending on the height of the scaffolding.

▲ Access via ladder through trapdoor platform

▲ Access via stairs attached to the scaffolding

▲ Working levels protected with guardrails and toeboards

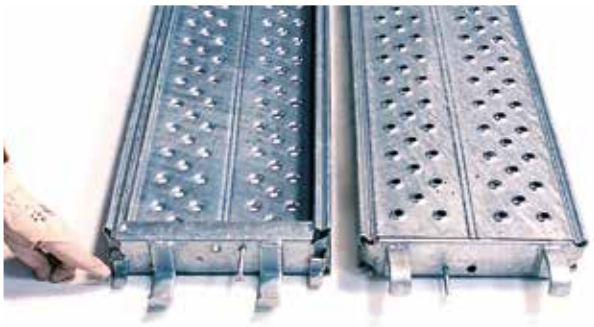
Third-party safety due to protections and configurations such as pedestrian walkways or protection fans which allow of free mobility of pedestrians and vehicles, without the work on the scaffolding structure posing a risk to others.

▲ Scaffolding standards secured with protecting tubes in pedestrian walkway

▲ Protection fan

It is **compatible with the DORPA Frame Scaffolding** even having in common a great number of system components. Common widths of the BRIO Modular Scaffolding and the DORPA Frame Scaffolding when used for façades are 0.7 m and 1.02 m.

▲ BRIO Modular Scaffolding in the irregular part of the support and DORPA Frame Scaffolding in the upper part ▲

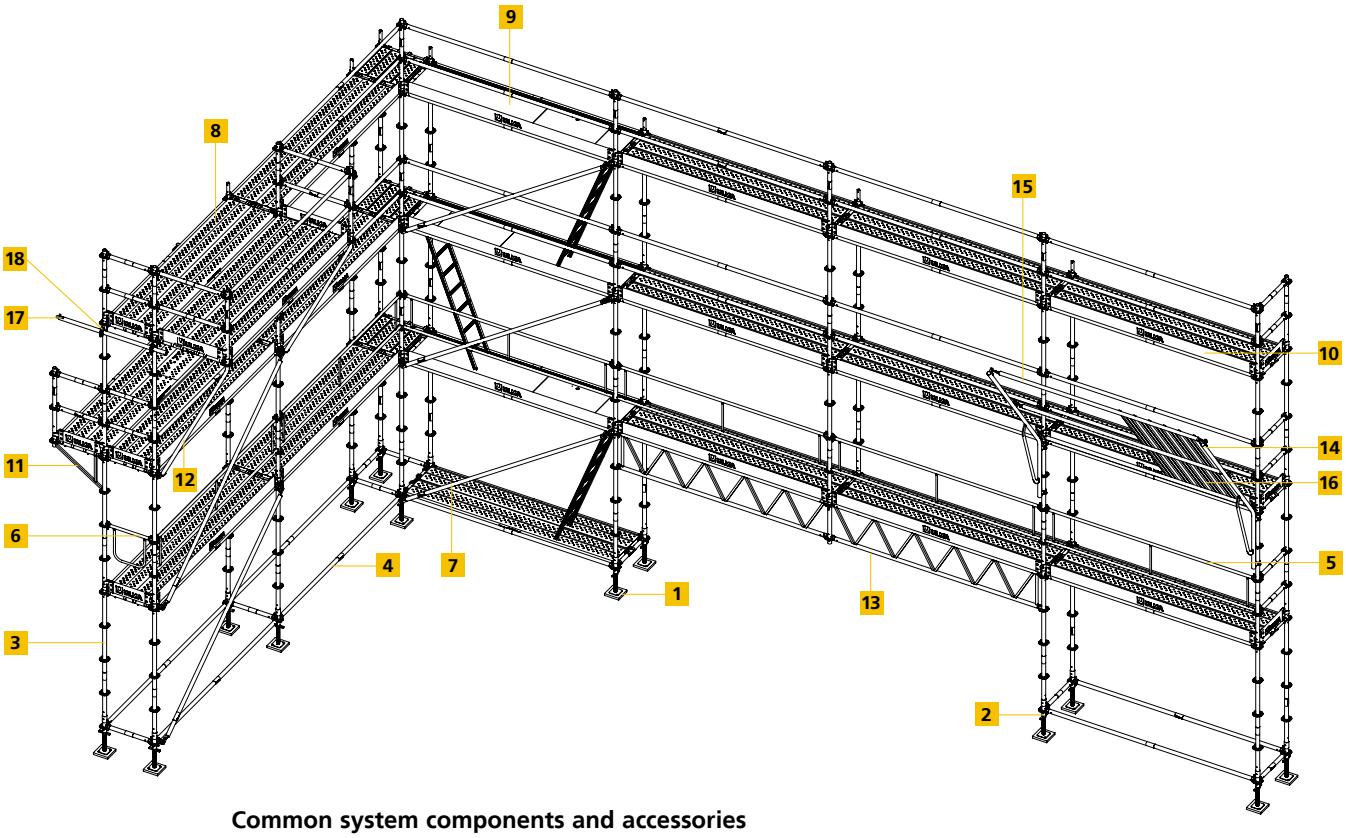


▲ Platform support elements and hook

- The hot-dip galvanising provides an excellent surface finish and **great durability** resulting in a highly profitable product.
- **Anti-slip platforms** with unintentional disengagement system through safety pin against accidental platform uplifting. Moreover, the provision of hooks on the platforms ensures their proper support on the ledgers, avoiding movements.

  There is a wide range of platforms of different lengths and capacities available, all according to European standards EN 12810 and EN 12811.

Basic system components



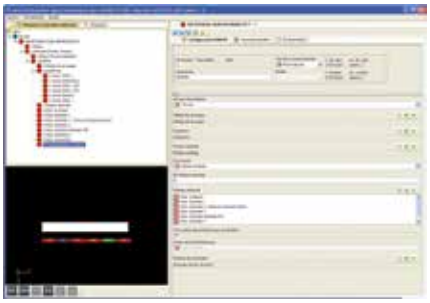
Common system components and accessories

1 **Adjustable base**
2 **Base collar**
3 **Standard**
4 **Ledger**
5 **Guardrail**
6 **Corner guardrail**
7 **Diagonal brace**
8 **Platform**
9 **Trapdoor platform**
10 **Toeboard**
11 **Console**
12 **Cantilever**
13 **Bridging beam**
14 **Cover shield**
15 **Shield ledger**
16 **Sheet**
17 **Tie**
18 **Right angle coupler**

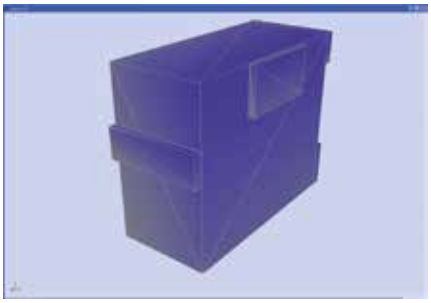
Solutions

grafsystem: Application software

This software has been developed by **ULMA Construcción** to offer all possible solutions for projects in the application of any product of the range. With **grafsystem**, assembly drawings and quotes including a detailed list of the required material can be obtained for the project in a quick and easy way.



▲ Parameter entry

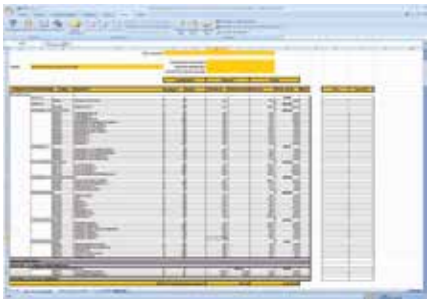


▲ Building geometry

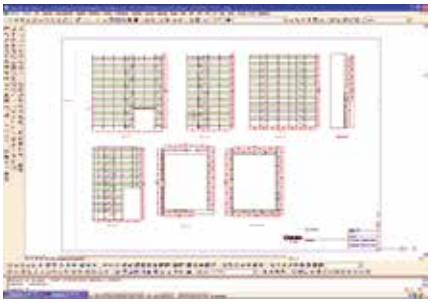
With respect to the BRIO Modular Scaffolding, the software offers two levels of solutions:

- **Solutions for quotes:** It provides the assembly drawing and the list of required materials for projects with façade scaffolding, scaffolding towers and stair towers in a quick and easy way. It is the user who designs the scaffolding.
- **Solutions for layout:** Once the building has been drawn in Autocad, grafsystem automatically generates the scaffolding in 3D. Complete assembly drawings and a detailed quote of the required material is obtained for each project. It provides solutions for all issues of façade scaffolding.

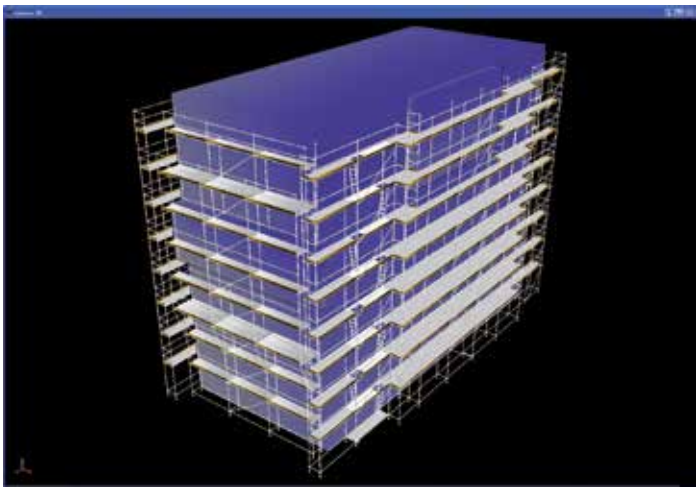
In short, this program with the simple introduction of the parameters or geometry of the building through a straightforward interface automatically provides the best solution and all necessary information for each project.



▲ List of materials - quote, in various formats for editing



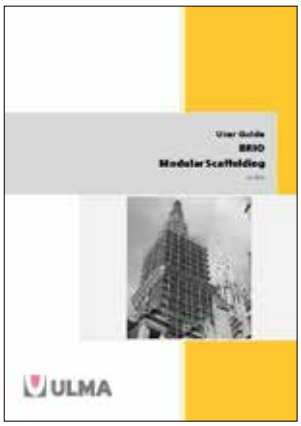
▲ Assembly drawings for the solution in different formats



▲ 3D model output

Common solutions

1 **Console**
2 **Cantilever**
3 **Protection fan**
4 **Bridging beam**



▲ For more information about solutions and erection, please refer to the User's Guide BRIO Modular Scaffolding

Pedestrian walkway:
System enabling pedestrian traffic on pavement under the scaffolding in a comfortable and safe manner.

Bridging beam:
Item to create 4, 5 or 6 m wide vehicle passageways through the scaffolding.

Console:
Item to extend the working area of the platforms at height which can be placed as well on the inside as on the outside. There are three different sizes available to place 1, 2 or 3 additional platforms.

Protection fan:
Protection system to prevent materials from falling down.

Cantilever:
Item designed for the adjustment of the scaffolding shape towards the inside or outside according to balconies or other projecting parts of the building.

Other:
Miscellaneous accessories for the solution of more complex applications in an easy and safe manner.

Applications

BRIO Modular Scaffolding offers solutions for rather simple up to the most complex and diverse applications:

Façade scaffolding / Irregular geometries

It is the most common application where working and access platforms are created to deal with regular and irregular façades. The system perfectly adapts to the geometry, in an easy and safe way.

◀ BRIO scaffolding in façade restoration

▲ Erection of scaffolding towers

▲ Restoration of Basilica of Our Lady of the Pilar, Zaragoza, Spain

▲ Restoration of Saint Mary's Cathedral, Vitoria, Spain

▲ BRIO Modular Scaffolding in inclined façade

▼ Erection for enclosure of irregular façade

Stair towers

With the stair tower configuration of the BRIO Modular Scaffolding, quick and safe access is created to any place of the building site.

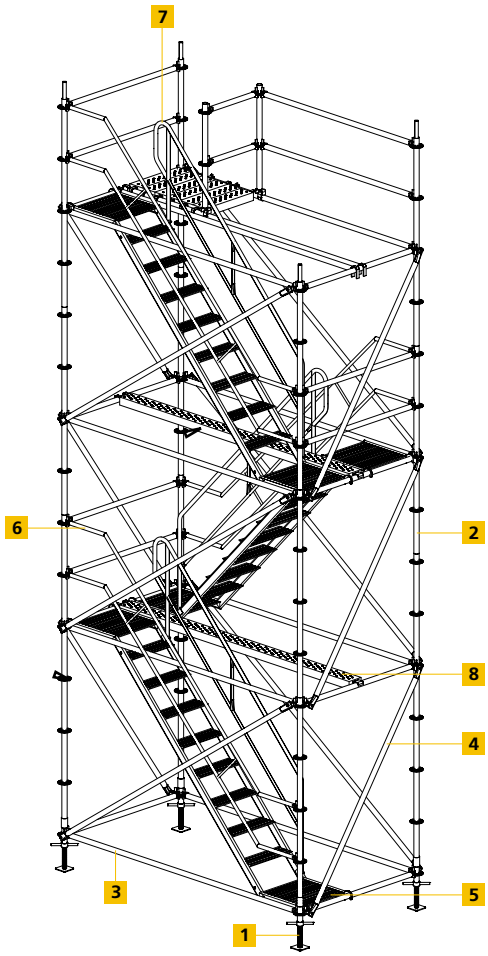
The following stair towers for access can be erected:

- 3 x 1.5 (4 standards) with complementary platform or landing deck.
- 3 x 1.4 (6 standards).
- 3.4 x 1.5 (8 standards).

Advantages:

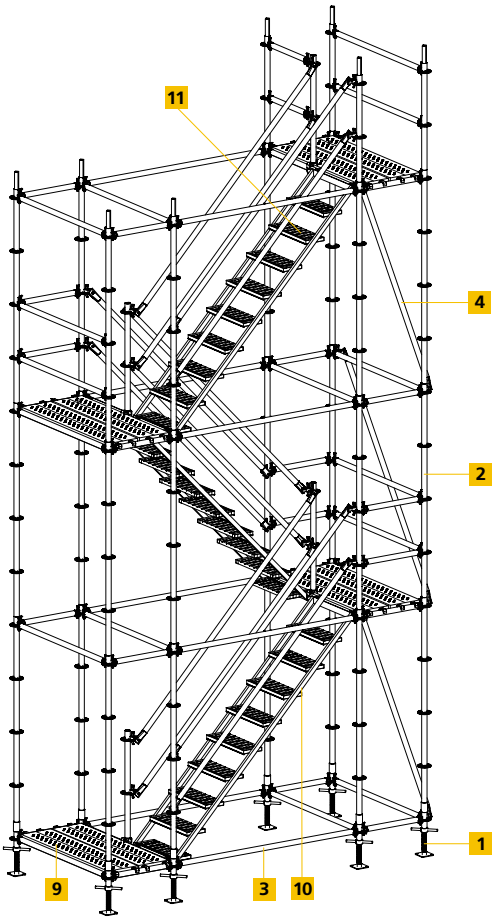
- Capable of reaching great heights.
- Movable with crane.
- Stable and safe access surface.
- Stair widths from 0.70 m to 1.02 m according to the requirements.
- Different stair landings possible.
- Stair assembly attached to the scaffolding.
- Aluminium or steel stair frames.

▲ Stairs to access the pier head formwork



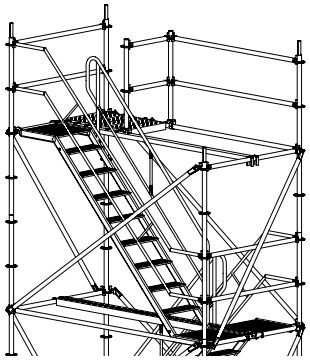
▲ Stair tower 3 x 1.5 with aluminium stair frame

1 **Adjustable base**
2 **Standard**
3 **Ledger**
4 **Diagonal brace**
5 **Aluminium stair**
6 **Outer guardrail**
7 **Inner guardrail**
8 **Complementary platform**
9 **Platform**
10 **Stair frame**
11 **Stair Step G**

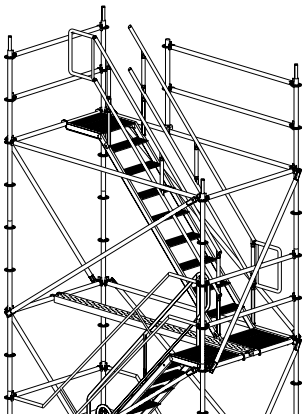


▲ Stair tower 3.4 x 1.5 with steel stair frame

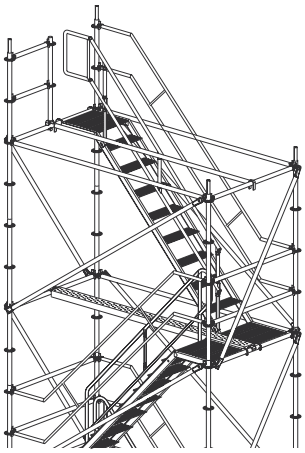
Different stair landing options depending on the top, for stair tower 3 x 1.5 m



▲ Long stair landing to the side



▲ Short stair landing to the side



▲ Stair landing to the front

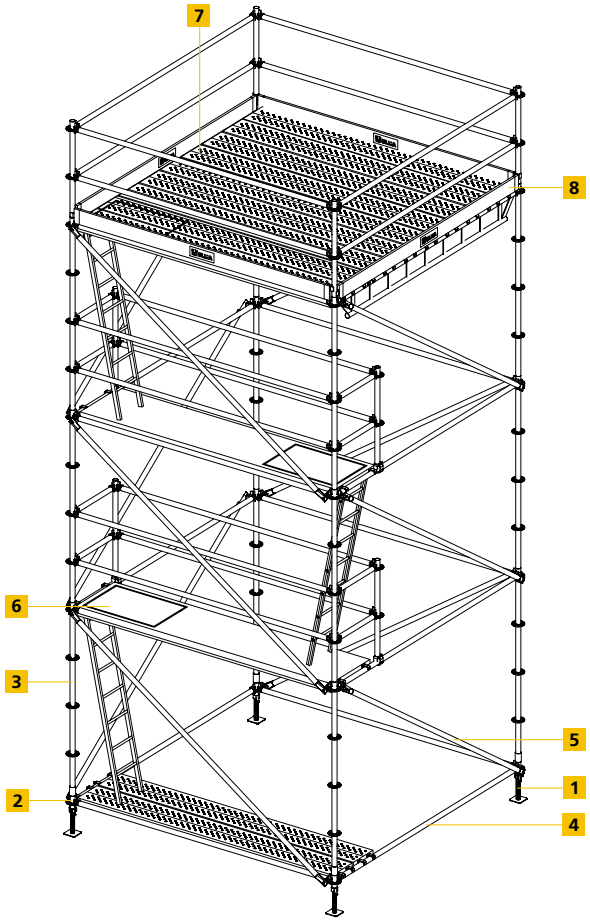
▲ Access to formwork in silo construction

▲ Stair tower to access the formwork in the extension of the Jorge Chavez Airport, Lima, Peru

Scaffolding towers

Working platforms up to 12 m height are created without stabilisation.

The scaffolding towers can be static or mobile with the possibility to lift and move them with crane.



1 Adjustable base Castor
2 Base collar
3 Standard
4 Ledger
5 Diagonal brace
6 Trapdoor platform
7 Platform
8 Toeboard

Erection of mobile scaffolding tower with safety guardrail posts.

Lifting and moving of towers

Scaffolding towers for pouring of columns in the extension of the Jorge Chavez Airport, Lima, Peru

BRIO Shoring System

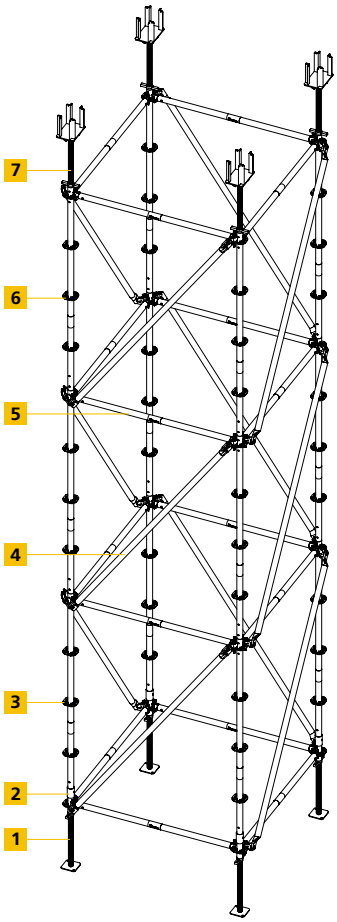
The BRIO Modular Scaffolding can be used as shoring system primarily in building construction to shore formwork consisting of main and secondary beams.

Features:

- **Wide range** of tower configurations: 0.35; 0.7; 1.02; 1.5; 2; 2.5 and 3 m.
- Load-bearing capacity optimised for building construction.

System advantages:

- **Quick and easy assembly.**
- Great **flexibility** to adapt to different geometries and configurations.
- **Safe assembly of the shoring** with assembly platforms and other safety items of the scaffolding.
- **Safe use** of the shoring by installing safe accesses, and with the possibility to create working areas and to install guardrails at the top level for the positioning of the formwork.
- Very reduced number of components.
- Possibility to lift and move the shoring once the vertical components are fixed.
- Assembly of individual shoring towers or full shoring possible.
- Excellent height adjustment.



1 **Adjustable base**
2 **Base collar**
3 **Standard**
4 **Diagonal brace**
5 **Ledger**
6 **Standard without spigot**
7 **Head**

▲ Creation of safe working spaces for formwork erection and at the perimeter ▲

▲ BRIO Shoring System supporting the roof of the Church of the Holy Family in Alzira, Valencia, Spain

▲ Wastewater tank, Lima, Peru

▲ Slab construction at great height

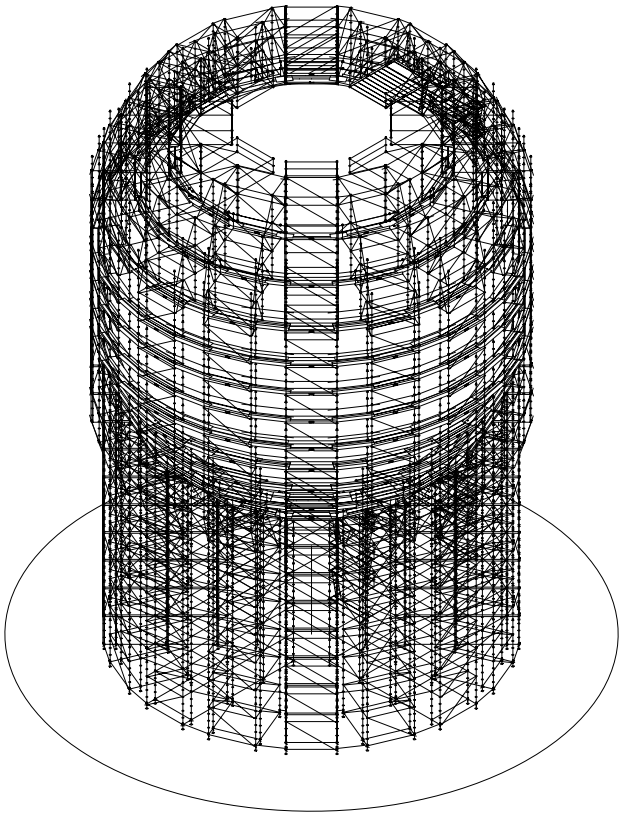
▲ Tank shoring at 24 m height

Circular solutions

BRIO Circular Scaffolding offers solutions for curved geometries while meeting high safety standards in any type of work such as for example industrial maintenance.

▲ BRIO Scaffolding in industrial maintenance works

▲ Maintenance of circular tank



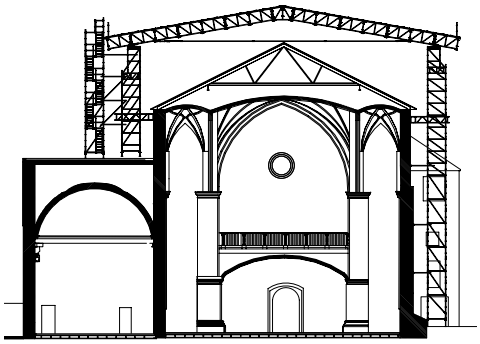
Temporary roofs

Provide a comfortable and protected space with wide spans for restoration works, pavillions, etc.

Pre-assembly takes place on the ground for subsequent lifting by crane. Temporary roof solutions consist of beams and supports, sheets and standard items of the BRIO Scaffolding system.

▲ Roofing and side covering of Chantilly Castle, Paris, France

▲ Roofing of San Telmo Convent, San Sebastian, Spain ▶



▲ Roofing at great height without possibility to tie the top level, Selles-sur-Cher Castle, France

▲ Roofing of Villagonzalo Palace, Madrid, Spain

Footbridges / Public staircases

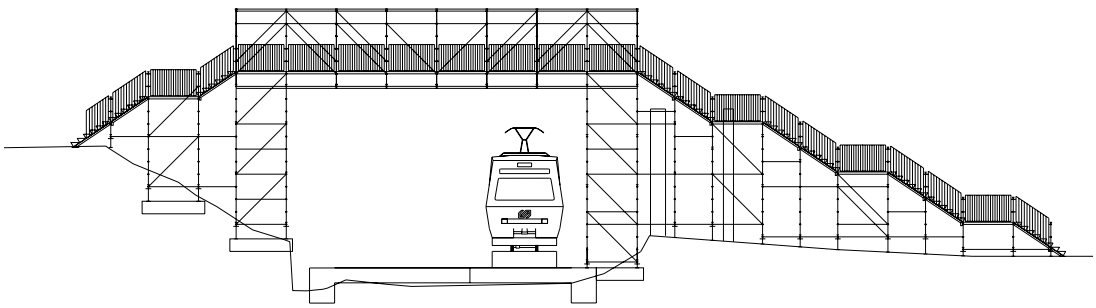
Footbridges and public staircases are temporary structures that, with appropriate widths suiting any requirements, provide safe spaces for pedestrian traffic.

▲ Scaffolding staircase for access to flats

▲ Pedestrian ramp

▲ Metal steps and anti-slip wooden stair landing

▲ Footbridge to cross over railway line



Roof edge protection

This system provides edge protection for roofs with nets or with metal perimeter protection.

The edge protection is verified according to the NF regulations based on the standard EN 13374:2004, class C.

▲ Roof edge protection in new building construction

▲ Protection net reinforced at the perimeter

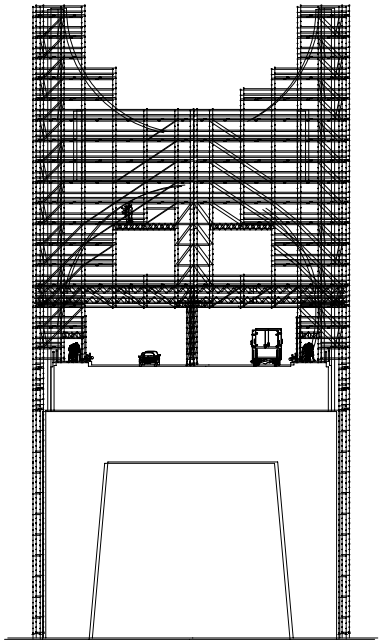
Support of façades

The BRIO scaffolding can also be used for the support of façades by combining simplicity and safety.

This application is aimed at the market of restoration and maintenance of façades.

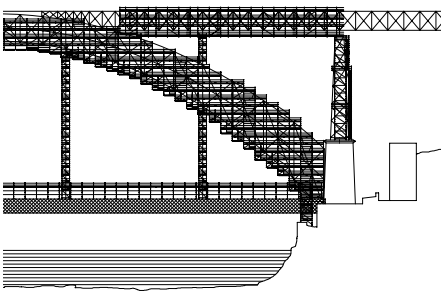
Special solutions

Maintenance of transport infrastructure



▲ Restoration of the La Salve Bridge, Bilbao, Spain ▲

▼ Restoration of the Ponte D. Luis I, Oporto, Portugal ▲



▲ Hanging scaffolding for maintenance works at a viaduct

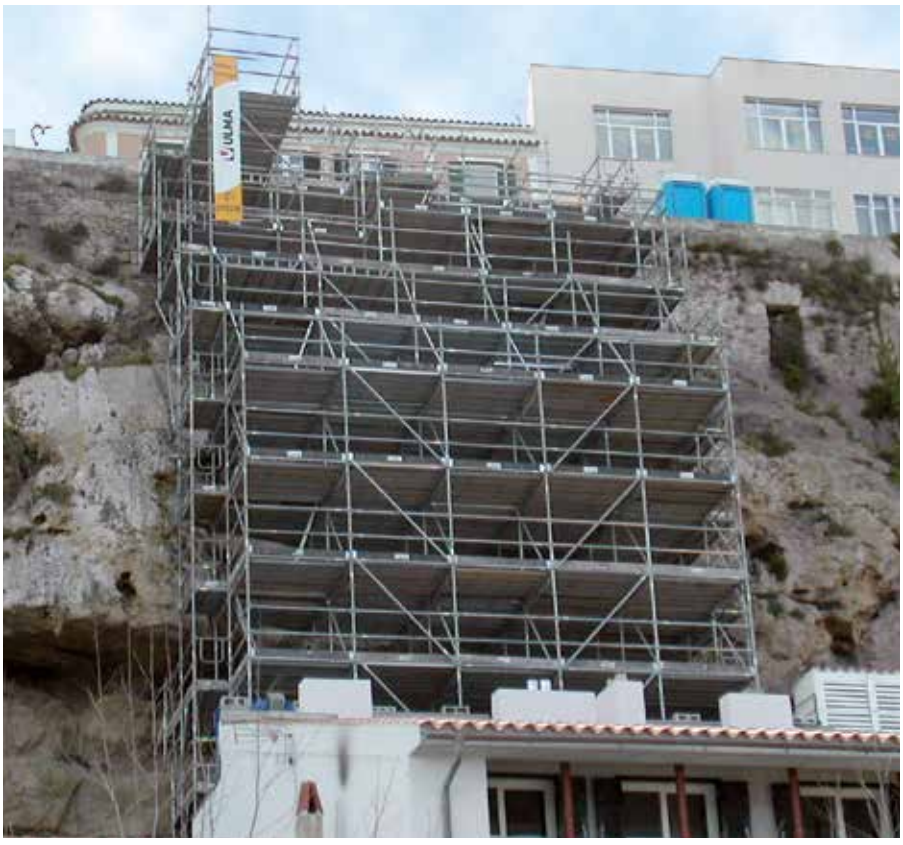
▲ Restoration of the Ponte Figueira Da Foz, Portugal

Construction of large structures

▲ Control tower at the Barcelona Airport, Spain

▲ Water tank in Chimbote, Peru

Creation of working platforms



▲ Erection of scaffolding over cliff

▲ Working platforms under roofing

▲ Mobile working platform

Diverse structures

▲ Temporary roof with a span of 22 m erected with standard items of the BRIO Scaffolding system.

▲ Structure for the simulation of a building

Leisure and entertainment

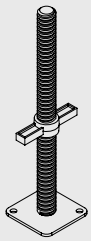
▲ Stages and screens for shows ▲

▲ Snowboard ramp

▲ Staircase in the Beaujoire Stadium, Nantes, France

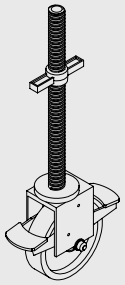
System components and accessories

	WEIGHT (kg)	Item no.
ADJUSTABLE BASES		
Adjustable base		
Adjustable base 0,5	4.9	2124902
Adjustable base 1	8.7	2124907

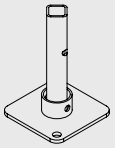


Adjustable swivel base	7.8	2127766

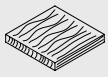
Castor 200	11.8	2127961
Jack with wheel 38/1250 kg	11.8	2127242



Base plate	1.4	2125216

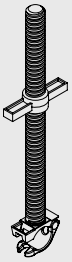


Wood runner 200 x 200 x 27	0.7	2127889



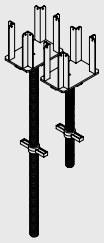
	WEIGHT (kg)	Item no.
Adjustable swivel base with coupler	10.2	2129561

Adjustable base with coupler	5.1	2129404

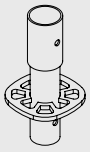


Handle lock	1.6	2129485

Adjustable head		
Adjustable head 0.5	8.8	2127973
Adjustable head 1	12.9	2127960



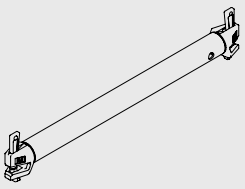
STANDARDS		
Base collar	1.4	2127510



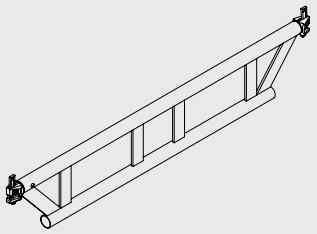
	WEIGHT (kg)	Item no.
Standards		
Standard 1	4.6	2127500
Standard 1.5	7.4	2127501
Standard 2	9.4	2127502
Standard 3	13.5	2127503
Standard 4	17.8	2127956

Standards w/o spigot		
Standard 0.5 w/o spigot	2.2	2127958
Standard 1 w/o spigot	4.4	2127605
Standard 1.5 w/o spigot	6.6	2127859
Standard 2 w/o spigot	8.5	2127860
Standard 3 w/o spigot	12.5	2127981

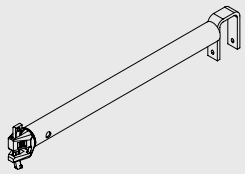
HORIZONTAL ELEMENTS		
Ledgers		
Ledger 0.5	2.2	2127985
Ledger 0.7	3.2	2127522
Ledger 1.02	4.4	2127523
Ledger 1.5	6	2127524
Ledger 2	7.6	2127525
Ledger 2.5	9.4	2127526
Ledger 3	11.7	2127527



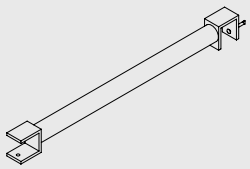
	WEIGHT (kg)	Item no.
Platform supports		
Platform support 1.5	12.2	2127733
Platform support 2	17	2127728
Platform support 2.5	20.1	2127724
Platform support 3	23.9	2127719



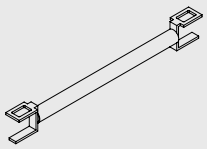
Head-hook ledger		
Head-hook ledger 0.7	3	2128639
Head-hook ledger 1.02	4.4	2128642
Head-hook ledger 1.5	6.2	2128645
Head-hook ledger 2	8.3	2128648
Head-hook ledger 2.5	10.2	2128651
Head-hook ledger 3	12.1	2128654



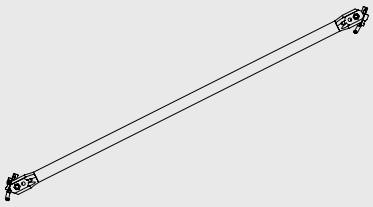
Intermediate transoms		
Intermediate transom 0.7	3.5	2127861
Intermediate transom 1.02	4.7	2127862
Intermediate transom 1.5	6.4	2127863
Intermediate transom 2	8.2	2127864
Intermediate transom 2.5	10.1	2127865
Intermediate transom 3	11.8	2127866



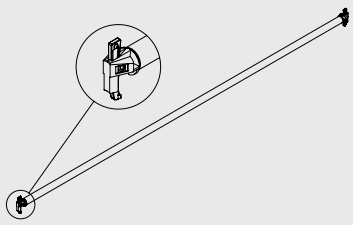
Ledgers BP		
Ledgers BP 1	2.6	2128631
Ledgers BP 2	3.8	2128635
Ledgers BP 3	5.1	2128637



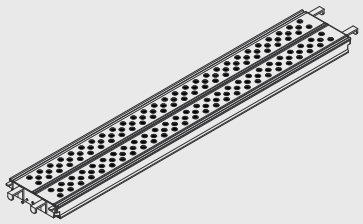
	WEIGHT (kg)	Item no.
DIAGONAL BRACES		
Diagonal braces		
Diagonal brace 0,35 x 2	8.5	2129411
Diagonal brace 0,7 x 2	7.2	2127540
Diagonal brace 1,02 x 2	8.7	2127541
Diagonal brace 1,5 x 2	10.2	2127617
Diagonal brace 2 x 2	11.8	2127542
Diagonal brace 2,5 x 2	13	2127618
Diagonal brace 3 x 2	14.2	2127543
Diagonal brace 0,7 x 1	6.5	2127896
Diagonal brace 0,7 x 1,5	7.2	2127897
Diagonal brace 1,02 x 1	7	2127898
Diagonal brace 1,02 x 1,5	7.6	2127899
Diagonal brace 1,5 x 1	7.6	2127900
Diagonal brace 1,5 x 1,5	8.8	2127901
Diagonal brace 2 x 0,5	8.9	2128241
Diagonal brace 2 x 1	9.2	2127902
Diagonal brace 2x 1,5	10	2127903
Diagonal brace 2,5 x 1	10.9	2127904
Diagonal brace 2,5 x 1,5	12.2	2127905
Diagonal brace 3 x 1	12.9	2127906
Diagonal brace 3 x 1,5	13.7	2127907



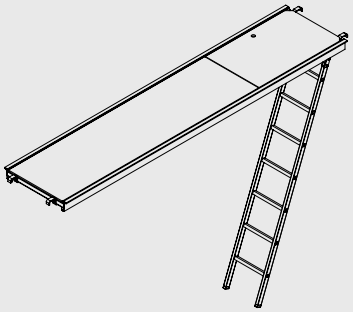
Horizontal diagonals		
Horizontal d. 2 x 2	6.6	2127920
Horizontal d. 2 x 3	5.4	2129541
Horizontal d. 2.5 x 2.5	5.4	2129539
Horizontal d. 2.5 x 3	5.8	2129542
Horizontal d. 3 x 3	6.2	2129540



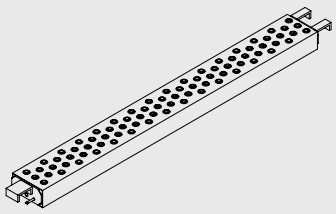
	WEIGHT (kg)	Item no.
WORKING PLATFORMS		
Platforms		
Platform 0.7	6.6	2127718
Platform 1.02	9	2127717
Platform 1.5	12.4	2127716
Platform 2	17	2127715
Platform 2.5	20.2	2127714
Platform 3	22.2	2127713



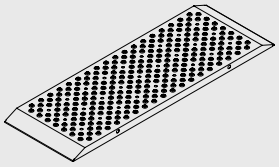
Trapdoor platform		
Trapdoor platform1.02	7.9	2129617
Trapdoor platform 1.5	13.5	2128152
Trapdoor platform 2	18.6	2127868
Trapdoor platform 2.5	25.8	2127867
Trapdoor platform 3	31	2127712



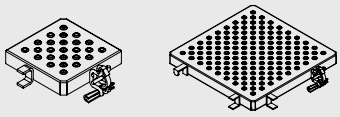
Complementary platforms		
Complementary pl. 1.5	8	2127756
Complementary pl. 2	10.2	2127755
Complementary pl. 2.5	12.8	2127754
Complementary pl. 3	15	2127753



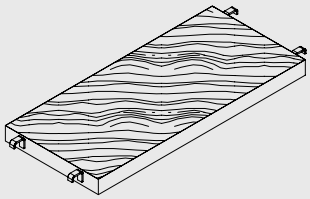
	WEIGHT (kg)	Item no.
Crossing platform	13	2125643



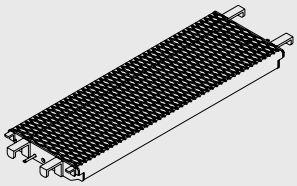
Corner platforms		
Corner platform 0.32	3.2	2125623
Corner platform 0.64	10.3	2125627



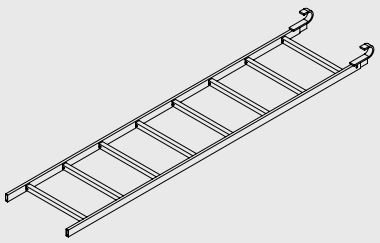
Combi platforms		
Combi platform 1.5	11	2127872
Combi platform 2	14.9	2127871
Combi platform 2.5	17.7	2127870
Combi platform 3	21.5	2127869



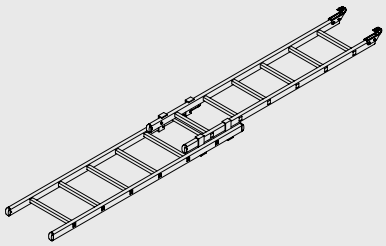
Combi platforms		
Combi platform 0.7	6.6	2128600
Combi platform 1.02	8.8	2128601
Combi platform 1.5	12.4	2128602
Combi platform 2	16	2128603
Combi platform 2.5	19	2128604
Combi platform 3	21.7	2128605



Ladder 2 x 0.43	12.2	2135352

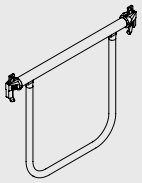


	WEIGHT (kg)	Item no.
Telescopic ladder 1.8-3	9	9840430

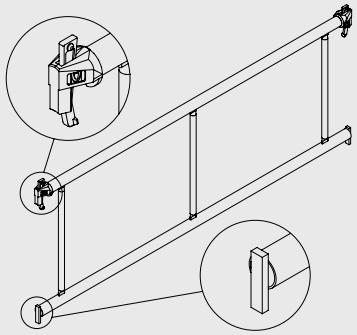


SAFETY GUARDRAIL

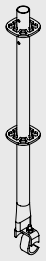
Corner guardrails BRIO		
Corner guardrail 0.7 BRIO	3.6	2127572
Corner guardrail 1.02 BRIO	4.6	2127573



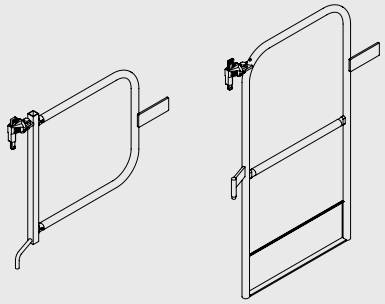
Guardrails BRIO		
Guardrail 1.5 BRIO	7.6	2127554
Guardrail 2 BRIO	9.2	2127555
Guardrail 2.5 BRIO	11.8	2127556
Guardrail 3 BRIO	12.8	2127557



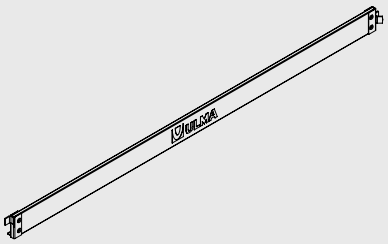
Guardrail post BRIO	5.2	2127656



	WEIGHT (kg)	Item no.
Swivel guardrail 0.70	3.2	2128053
Swivel guardrail with toeboard	5.4	2129627

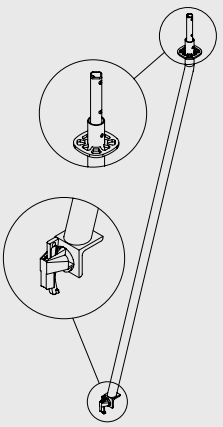


Toeboards		
Toeboard 0.7	2.6	2124998
Toeboard 1.2	3.2	2124999
Toeboard 1.5	4.2	2124994
Toeboard 2	5.2	2124995
Toeboard 2.5	6	2124996
Toeboard 3	6.8	2124997

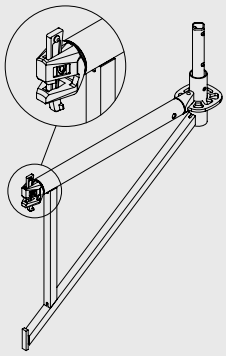


COMPONENTS AND ACCESSORIES

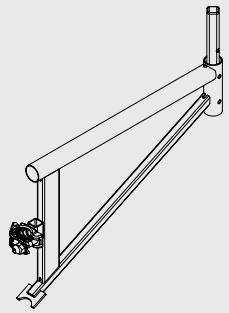
Cantilever BRIO		
Cantilever 0.7 BRIO	9	2127739
Cantilever 1.02 BRIO	10	2127745



	WEIGHT (kg)	Item no.
Consoles BRIO		
Console 0.2 BRIO	1.1	2127234
Console 0.32 BRIO	2.3	2127679
Console 0.7 BRIO	6.6	2127680
Console 1.02 BRIO	9.7	2127681

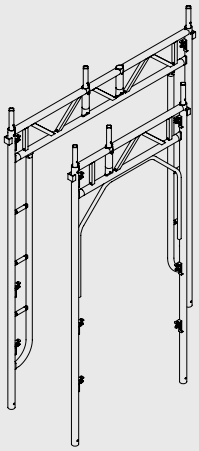


Consoles M		
Console M 0.32	4	2125602
Console M 0.5	4.6	2125695
Console M 0.7	5.3	2125608
Console M 1.02	6.5	2125612

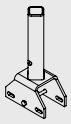


Guardrail post FM	4.1	2125634

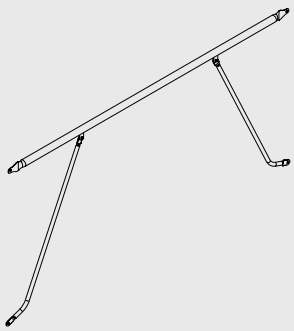
	WEIGHT (kg)	Item no.
Passage frames		
Passage frame 0.9	30	2125486
Passage frame 1.65	46.4	2125175



Initial support U	1	2127966

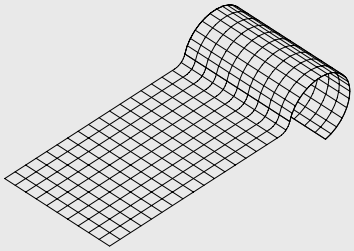


Gangway crossbraces		
Gangway crossbraces 2	8.4	2125324
Gangway crossbraces 2.5	9.6	2125325
Gangway crossbraces 3	10.8	2125326

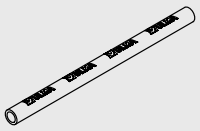


Lifting hook D/B	2.7	2127215

	WEIGHT (kg)	Item no.
Two-colour net 6 x 12	7.2	2125549

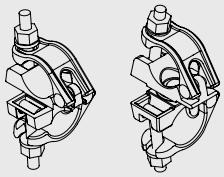


Protector tube	0.28	2125667
Plastic clamp 7.6 x 540 N	0.008	9062601

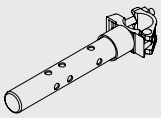


CONNECTING ELEMENTS

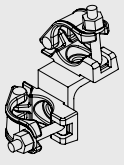
Right Angle Coupler 48/48	1.2	2125148
Swivel Coupler 48/48	1.3	2125147



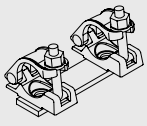
Coupler 48 with spigot	1.7	2125309



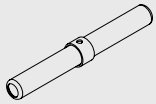
Right angle coupler	1.3	2127964



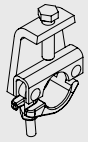
Tension couplers 48	1.7	2125184



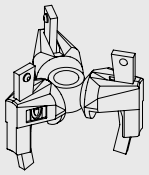
	WEIGHT (kg)	Item no.
Double spigot 48	1.3	2125312



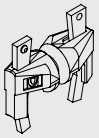
IPN Coupler	0.9	2128077



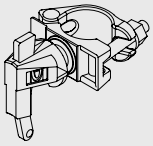
Triplet head	1.7	2128047



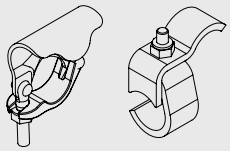
Twin head	0.9	2129381



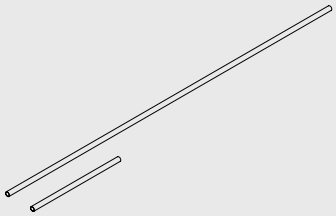
BRIO head with coupler	1.3	2127923



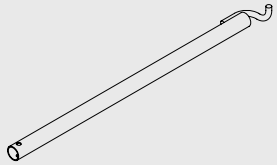
Girder beam coupler	0.62	2129616
Girder beam clamp	0.7	2128400



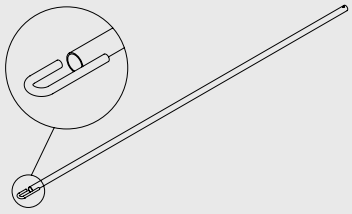
	WEIGHT (kg)	Item no.
Tubes		
Tube 48/0.5	1.8	2125288
Tube 48/1.1	3.7	2125289
Tube 48/1.6	5.5	2125290
Tube 48/2.1	7	2125291
Tube 48/3.1	11	2125249
Tube 48/4.1	15	2125250
Tube 48/5	18	2125251



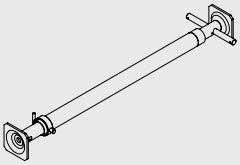
Ties		
Tie 0.3	1.6	2125503
Tie 0.5	2.2	2125137
Tie 1	4.2	2125138
Tie1.5	5.8	2125139
Tie 2	7.6	2125140



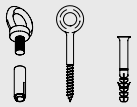
Ties		
Tie 48/3,5	13.3	2125513
Tie 48/5	18.7	2125515



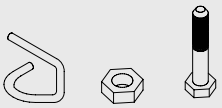
Window ties		
Window tie 0.8-1.2	6.1	2125107
Window tie 1.2-2	7.7	2125108



	WEIGHT (kg)	Item no.
Eyebolt screw M16	0.3	9165400
HKD hilti plug M16	0.9	9850530
Plastic plug 14 x 70	0.01	9371777
Plastic plug 14 x 100	0.01	9371774
Plastic plug 14 x 140	0.01	9371773
Ring 12 x 120	0.18	9371772
Ring 12 x 160	0.22	9371778
Ring 12 x 230	0.29	9371779
Expansion anchor M16 x 145	0.5	9371780

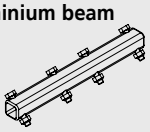


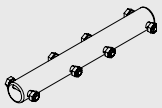
Pin	0.1	2125159
Self-locking hexagonal nut M10	0.01	9056600
Bolt M10 x 60 8.8 DIN 931	0.1	9050901
Bolt M10x80	0.1	9045200



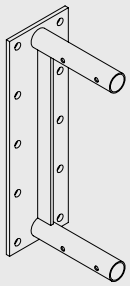
BEAMS

Double spigot	1.1	2127825
Double spigot for aluminium beam	1	2129545

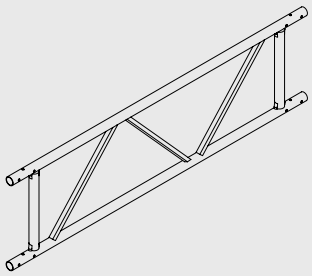




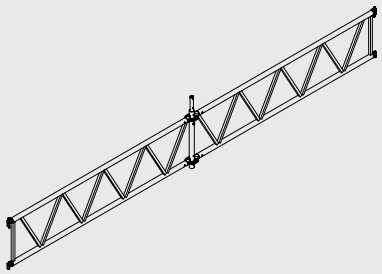
Beam anchorage	10.7	2129372



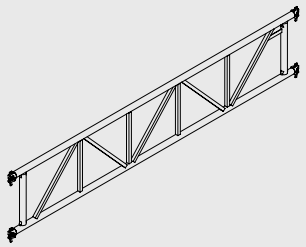
	WEIGHT (kg)	Item no.
Beams		
Beam 500 2	18.8	2128095
Beam 500 2.5	23	2128098
Beam 500 3	27.1	2128100
Beam 500 4	35.4	2128104
Beam 500 6	52	2128106
Beam alu 2	9	2128108
Beam alu 2.5	11.5	2128112
Beam alu 3	14	2128114
Beam alu 4	18	2128118
Beam alu 6	26	2128120



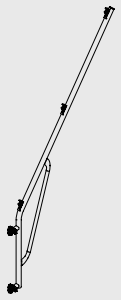
Bridging beam BRIO		
Bridging beam 4 BRIO	44	2127706
Bridging beam 5 BRIO	56	2127702
Bridging beam 6 BRIO	68	2127693



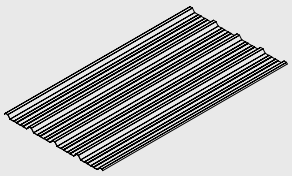
Passage beams		
Passage beam 1.02	12.6	2128052
Passage beam 1.5	16.3	2128081
Passage beam 2	23.4	2128082
Passage beam 2.5	30	2128083
Passage beam 3	35	2128084



	WEIGHT (kg)	Item no.
PROTECTION FAN		
Fan support	12.3	2125316

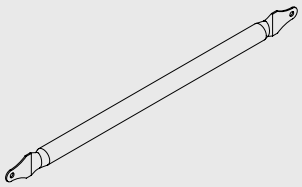


Sheet PL	12.8	2125705

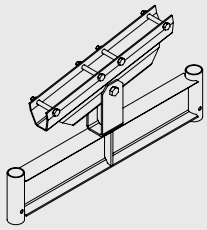


Sheet hook	0.2	2125323

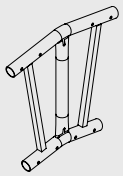
Shield ledger		
Shield ledger 0.7	1.7	2125438
Shield ledger 1.02	2.2	2125439
Shield ledger 1.5	3.6	2125245
Shield ledger 2	4.8	2125246
Shield ledger 2.5	6	2125247
Shield ledger 3	7.4	2125248



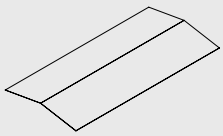
TEMPORARY ROOFS		
Roof supports		
Roof support 0.7	16.1	2129558
Roof support 1	20	2129225



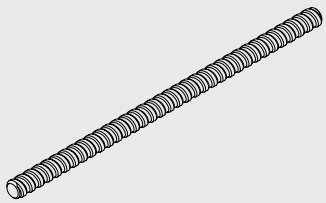
	WEIGHT (kg)	Item no.
Ridge	7.5	1500236



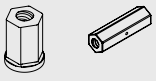
Ridge sheet	9.4	2125678



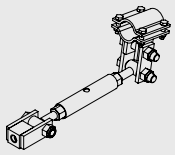
Tie rods		
Tie rod 15/1	1.7	0230100
Tie rod 15/1.5	2.2	0230150
Tie rod 15/2	3.3	0230200
Tie rod 15/2.5	3.6	0230250
Tie rod 15/3	4.3	0230300
Tie rod 15/3.5	5	0230350
Tie rod 15/4	5.8	0230400
Tie rod 15/4.5	6.5	0230450
Tie rod 15/5	7.2	0230500
Tie rod 15/5.5	7.9	0230550
Tie rod 15/6	8.6	0230600



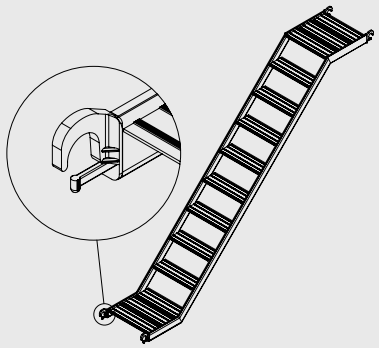
Hexagonal nut 15	0.22	7238001
Hexagonal nut 15/100x30	0.3	7238003
Spring washer B18	0.1	9371767



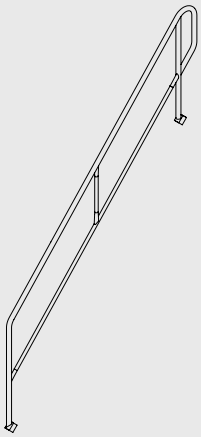
Covering roof tie rod	4.4	1500405



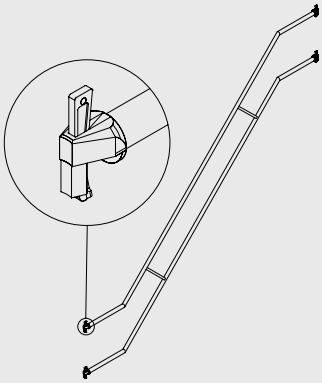
	WEIGHT (kg)	Item no.
BRIO STAIR TOWERS		
Aluminium stair 3 x 2	24.6	2127711



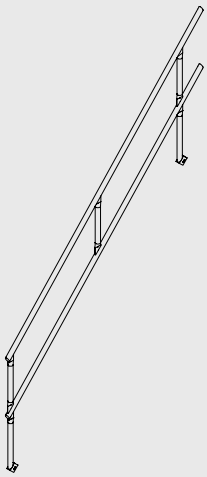
Inner guardrail 3 x 2	15.4	2127999



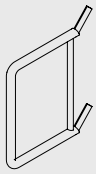
Outer guardrail BRIO 3x2	17	2127777



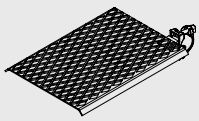
	WEIGHT (kg)	Item no.
Inner guardrail simple 3 x 2	11.5	2128137



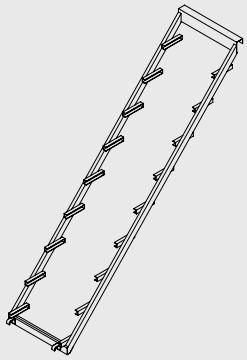
Landing guardrail 3 x 2	3.2	2128138



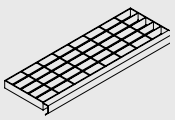
Landing deck 3 x 2	7.2	2128139



Stair frame 2 x 2	27	2127648

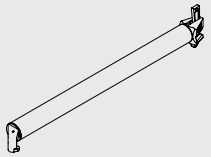


Stair step G	3	2066959

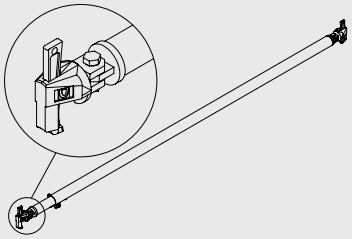


	WEIGHT (kg)	Item no.
Ladder safety pin	0.01	9027400

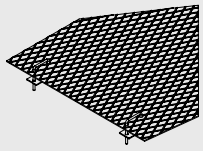
BRIO CIRCULAR		
Right transom 0.7	3.3	2127810
Left transom 0.7	3.3	2127811



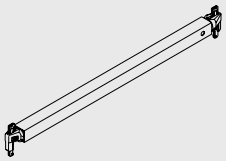
Telescopic ledgers		
Telescopic ledger 2	8	2127813
Telescopic ledger 3	12	2127812



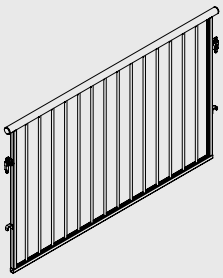
Crossing circular deck	6	2127814



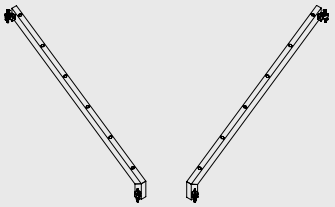
PUBLIC STAIRCASE		
Ledger 1 (rectangular)	4.2	2128000



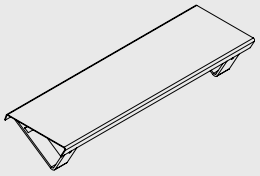
Horizontal guardrail 2	20	2128291



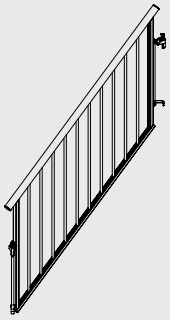
	WEIGHT (kg)	Item no.
Left stringer 1.5 x 1	9.8	2128281
Right stringer 1.5 x 1	9.8	2128285



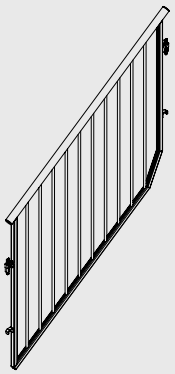
Stair steps		
Step 1	14.1	2128364
Step 2	25.3	2128287



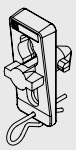
Stair guardrail left-right	14.3	2128709



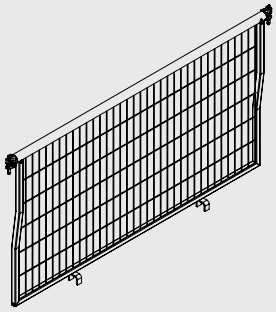
Stair guardrail 1.5	16	2128304



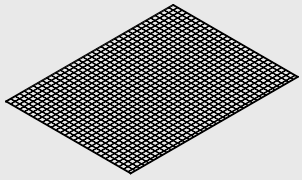
Locking pin FP	0.4	2129546



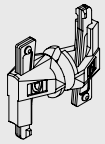
	WEIGHT (kg)	Item no.
ROOF EDGE PROTECTION		
Guardrails BP		
Guardrail BP 3	26.1	2127105
Guardrail BP 2.5	22.3	2127199
Guardrail BP 2	18.3	2127111
Guardrail BP 1.5	14.3	2127203
Guardrail BP 1.02	10.6	2127207
Guardrail BP 0.7	8.3	2127211



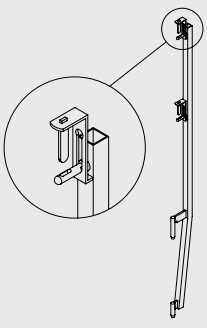
Nets BP		
Net BP 3 x 2	4	2129630
Net BP 2.5 x 2	2	2129631
Net BP 2 x 2	1.6	2129632
Net BP 1.5 x 2	1.2	2129635
Net BP 1 x 2	0.79	2129636
Net BP 0.7 x 2	0.55	2129637



Twin head BP	0.91	2129634

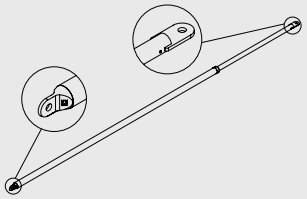


SAFETY ITEMS FOR SCAFFOLD ERECTION		
BRIO safety guardrail post	3.9	2128193

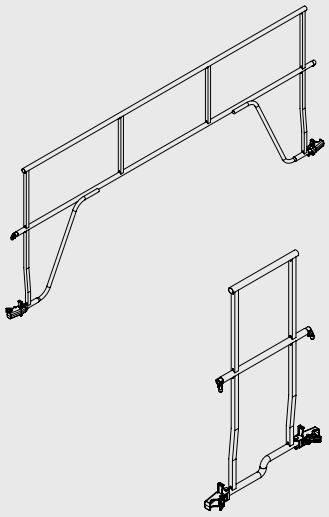


	WEIGHT (kg)	Item no.
90° adapter	2	2129501

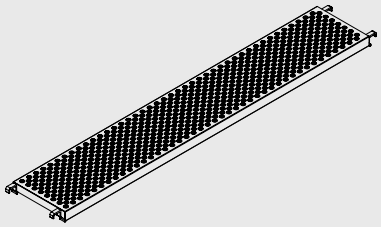
Safety ledgers		
Safety ledger 3-2	4.8	2128194
Safety ledger 1.5	3.8	2129310



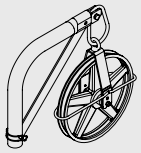
Safety guardrails		
Safety guardrail 0.7	10	2127892
Safety guardrail 1.02	12	2127890
Safety guardrail 1.5	11.9	2127644
Safety guardrail2	15.7	2127641
Safety guardrail 2.5	15.3	2127638
Safety guardrail 3	16.5	2127628



	WEIGHT (kg)	Item no.
Assembly platforms		
Assembly platform 500/2	10.3	2129465
Assembly platform 500/3	14.5	2129464

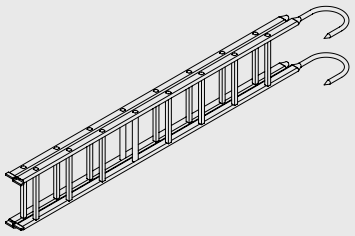


Pulley with support	4.5	2129173



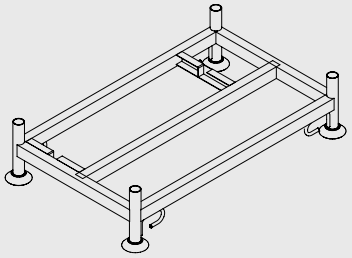
Load hook	0.8	2129172

Assembling ladder	8.6	2129254

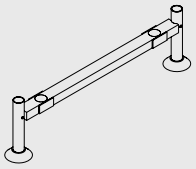


PALLETS

Removable DORPA-BRIO pallet 0.7	38.4	2127938

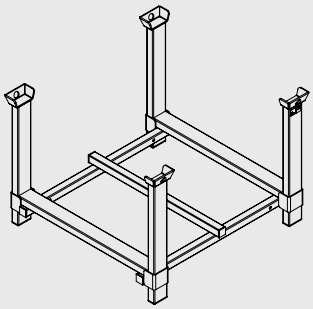


	WEIGHT (kg)	Item no.
Pallet adaptor brio-dorpa 1.02	7.8	2127939



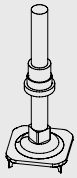
Pallet post		
Pallet post 1.07	3.6	2127940
Pallet post 0.72	2.5	2129645

Pallets		
PL1 pallet	59	2127230
PL2 pallet	59	2127225



OTHER

Window tie screw	8.2	2127922



Double socket BRIO	1	2127833

	WEIGHT (kg)	Item no.
End caps		
End cap D45 (200 uds)	0.01	9372752
End cap D40 (200 uds)	0.01	9372760

Outside ferrule D11 (200 units)	0.01	9370646

Protecting plug	0.03	2125582

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Ps. Otadui, 3 - Apdo. 13
20560 OÑATI (Guipúzcoa)
SPAIN
Phone: +34 943 034900
Fax: +34 943 034920
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