

UNIVERSAL SYSTEM





innovation in construction





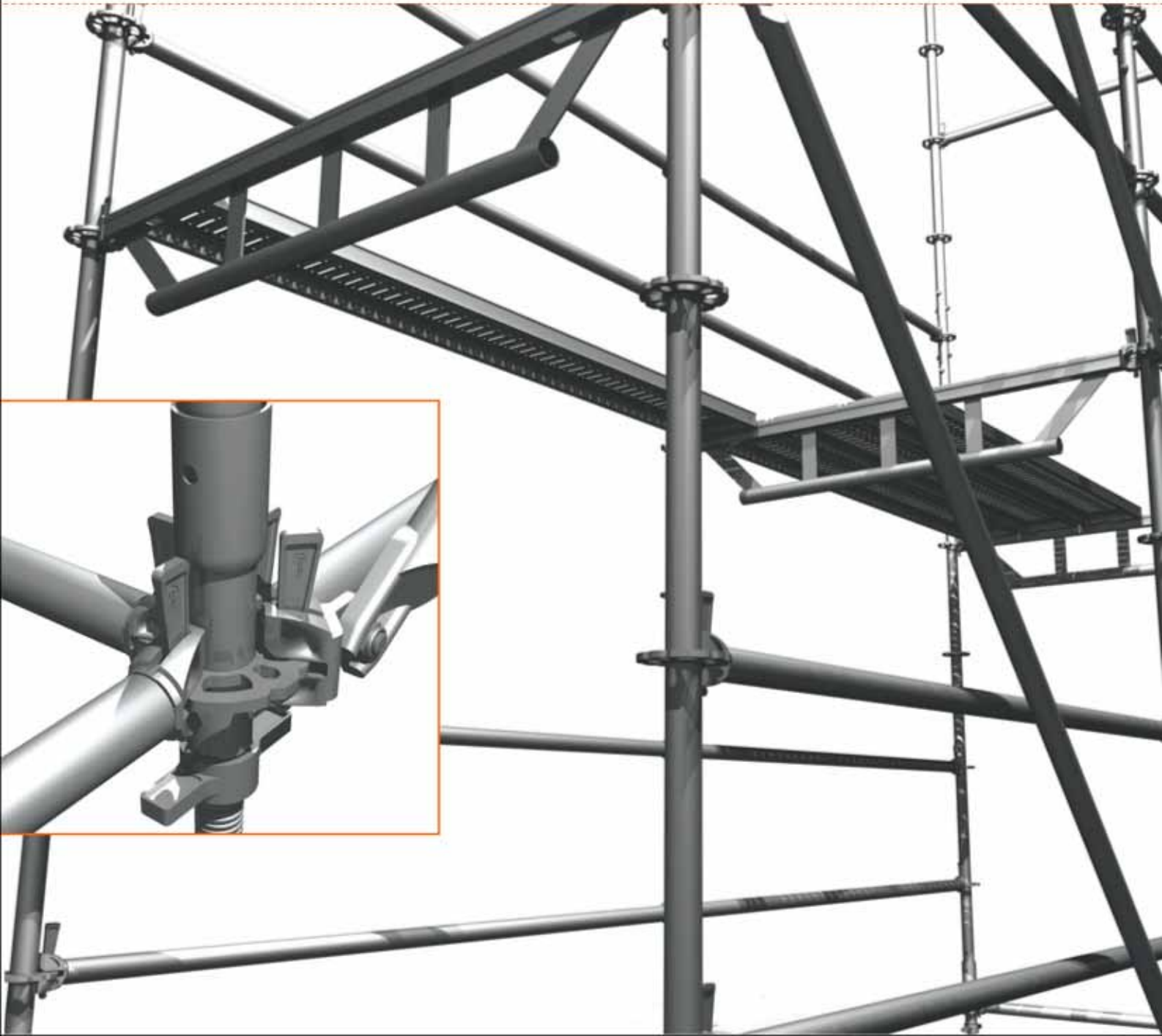


catani guarantee is the best quality certificate that a professional can demand.

UNIVERSAL SYSTEM

industry engineering
civil works

technology at lower costs, stability, aesthetic, economy, efficiency, durability



THE UNIVERSAL SYSTEM WILL ALWAYS BE RELIABLE EQUIPMENT THAT WILL HELP YOU TO GET THE HIGHEST LEVELS OF PROFITABILITY WITHOUT EVER NEGLECTING SECURITY.

The scaffolding system Universal System (US) offers solutions of big versatility to all kind of works. US scaffolding is built with vertical elements in which a rosette is welded each 50cm. This rosette has holes with several geometries to be able to receive different connection devices of fast attachment (endings) welded at the diagonal and horizontal extremities. All the metallic elements are hot-dip galvanized giving it a high resistance to corrosion.

QUALITY from the purchase of the raw materials to the equipment expedition, high selection and control criteria are used allowing us to offer a product of high quality. Besides the strict indoor tests (of quality and resistance) to which the US components are periodically submitted, Catari also appeals to reputed outer laboratories in order to insure the system's quality.

SECURITY the scaffolding system US has been developed and conceived to answer the most demanding assembly needs of scaffolding without neglecting security. In the development of this scaffolding system there has always been present a strict procedures accomplishment.

VERSATILITY this system allows the assembly of every type of scaffoldings. The possibility of getting infinite angles, due to the new rosette's geometry and the high structural values of the coupling assembly are some of the reasons that make this scaffolding especially profitable. Using the US system it is possible the assembly of light scaffoldings with a high capacity of weight and with material saving.

TO ALL USES

The US allows us to deal with all kinds of work with the certainty of having a solution. Round scaffoldings for deposits and bin systems, scaffoldings for industry, scaffoldings for restoration works in churches (indoor and outdoor), hanging scaffoldings, scaffoldings for work's access, scaffoldings for events, for naval and aeronautics building etc..., these are just some possible uses of the Universal System scaffolding.

the best choice



security



Easy handling and storage



quality



lightness



multiple solutions versatility



client's satisfaction

the rosette

fast acquisition of square angles / possibility of getting infinite other angles.

New design
High steel quality
High carrier capacity



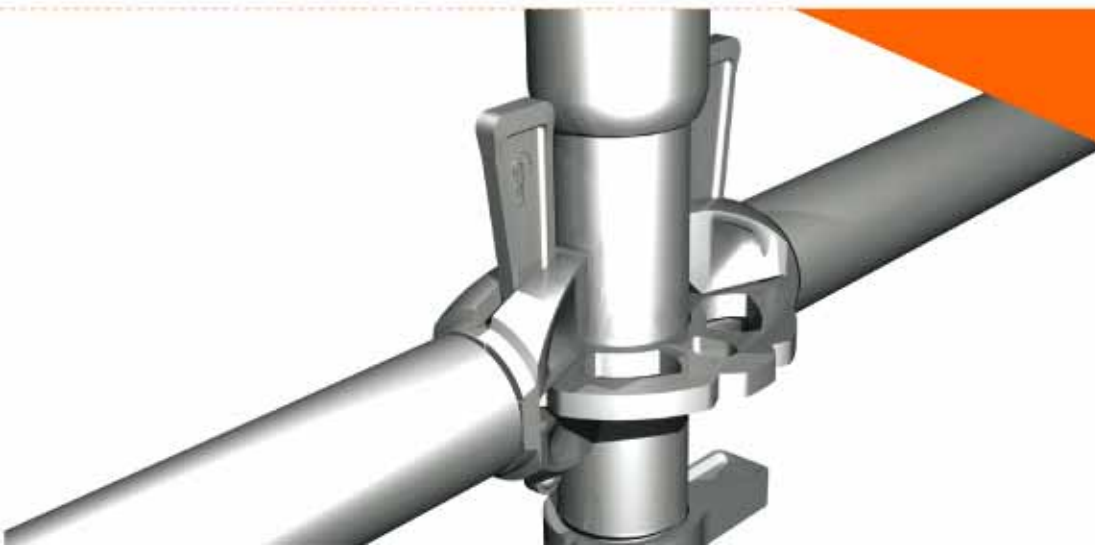
catarri's
GUARANTEE

technical characteristics and functions

the
insuperable
system



towers
stairways
catwalks
access slope
advertising holders



new
product
newness

STAIRCASE

It gives the possibility of having exterior access to the scaffolding giving a comfortable mobility between the different levels. Made of aluminium, it is extremely light and easy to handle.



“...comfortable mobility
between the different levels...”



security



quality



lightness



client's
satisfaction

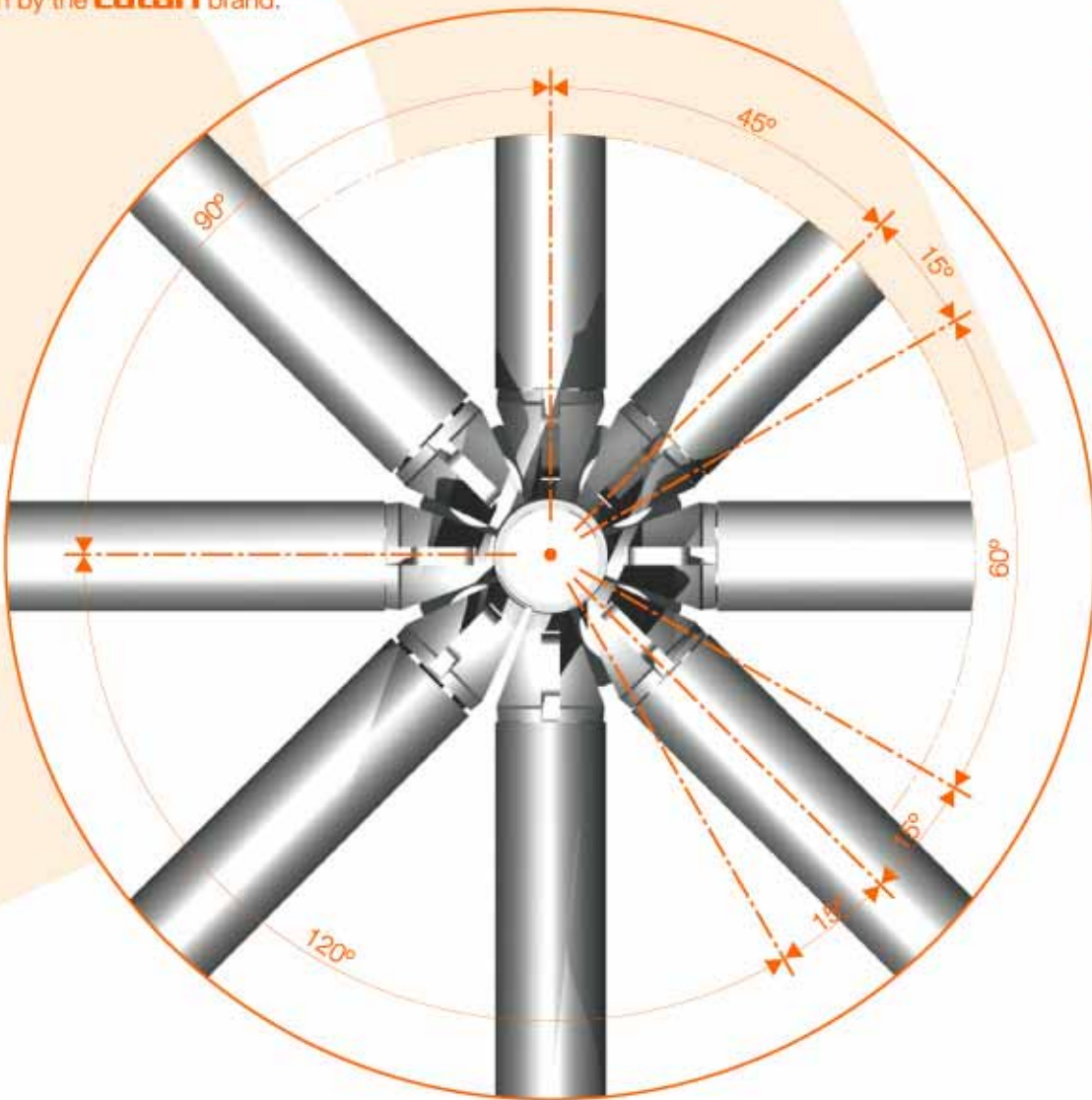
QUALITY
TECHNOLOGY
INVESTIGATION



catarr's
GUARANTEE

allowable angles

The possibility of changing angles between modules facilitates the scaffolding assembly in structures as tanks and deposits. The assembly scheme is the same as for the conventional scaffoldings, always respecting the security rules given by the **catani** brand.



15°

45°

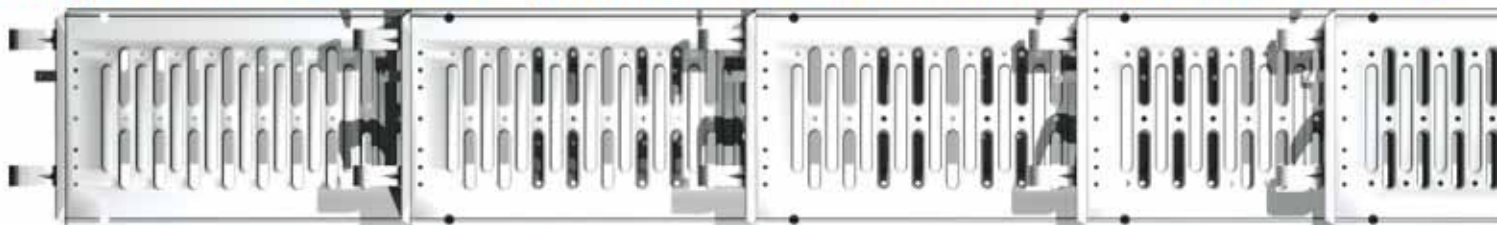
60°

90°

120°

adjustment

hot galvanized steel platforms with non-skid surfaces.



0.73

1.09

1.57

2.07

2.57

3.07

catarrs products guarantee is expressed by the respect for the technical indications described by the images, having as main aim the security of its users and the equipment's good behaviour during its use.

instructions

assembly scheme

01



1_ settlement of the levelling bases

levelling base 01, adjustable according to the ground's specificity; collocation of the collar on the base to allow the vertical and horizontal attachment for the scaffolding's base construction (01.1);

02



2_ scaffolding area / reticulated basis

the collocation of levelling bases should be done according to the ground's specificity; according to the technical characteristics, namely the screwed set; it is possible to get infinite regulations.

03



3_ vertical / horizontal attachment

vertical attachment for the construction of the following module; the vertical and horizontal attachment allows the stable construction of one structure adaptable to several work situations; between the verticals it is possible the collocation of horizontals or U horizontals to fit FA-48 front scaffolding platforms.

04



4_ use of U horizontal

use of horizontal U to fit FA-48 front scaffolding platforms (04.1); these horizontals U can also be reinforced when the width reaches the measure of 1.09m;

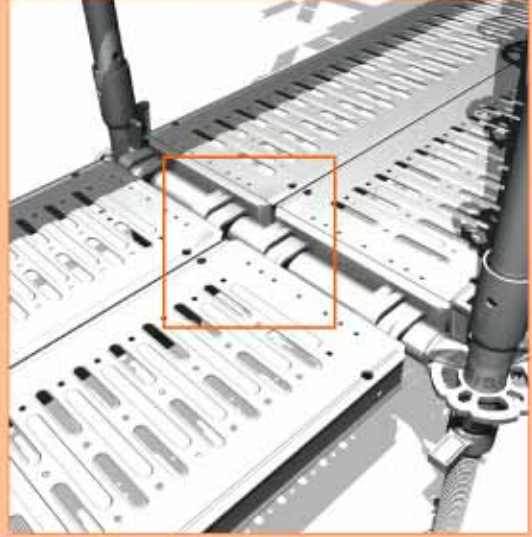
05



5_diagonals attachment

diagonals attachment to achieve the stability of the assembly, allowing from this point on the setting of following modules;

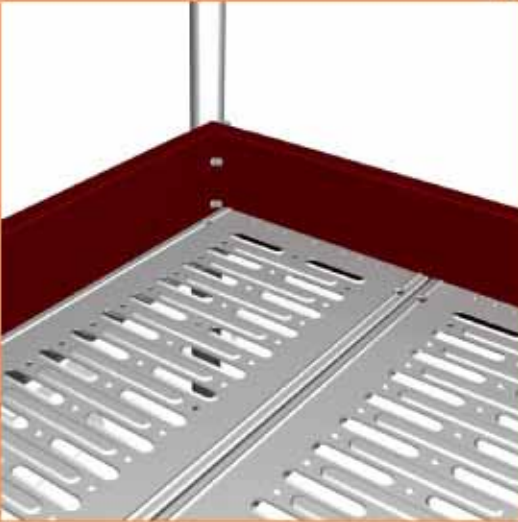
06



6_metallic decks attachment

use of US horizontals perpendicular to the verticals to use metallic decks of the same model, Universal Systems decks; it can also be used other platforms according to the client's needs (aluminium wood platform);

07



7_toe boards

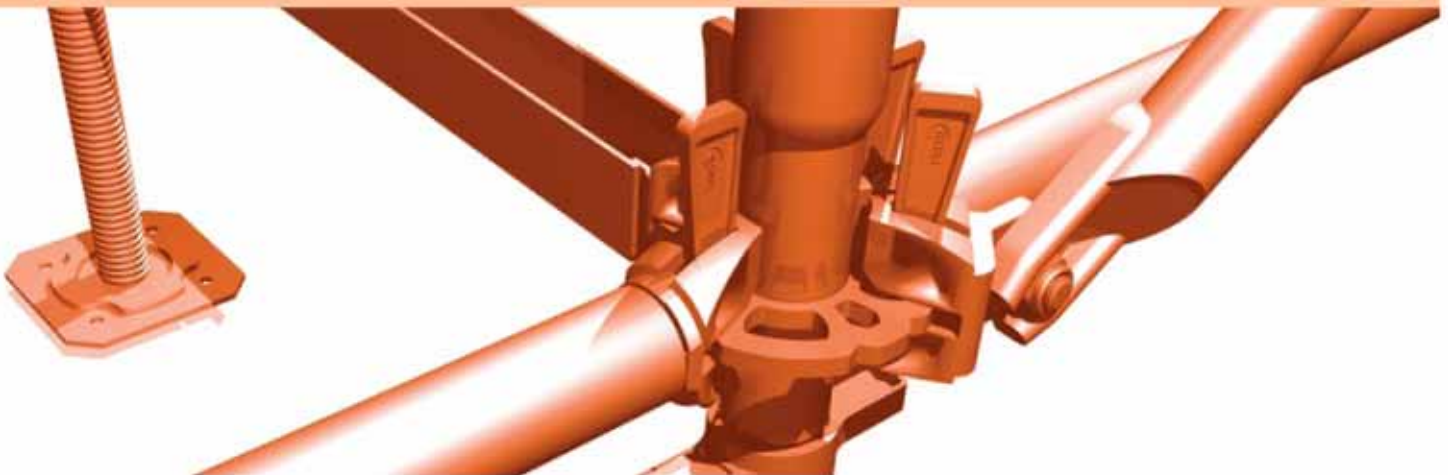
attachment of toe boards along all scaffolding's level, preventing accidental fall of tools and other accessories used when working; it can already be used two types of toe boards, wood or PVC (new product);

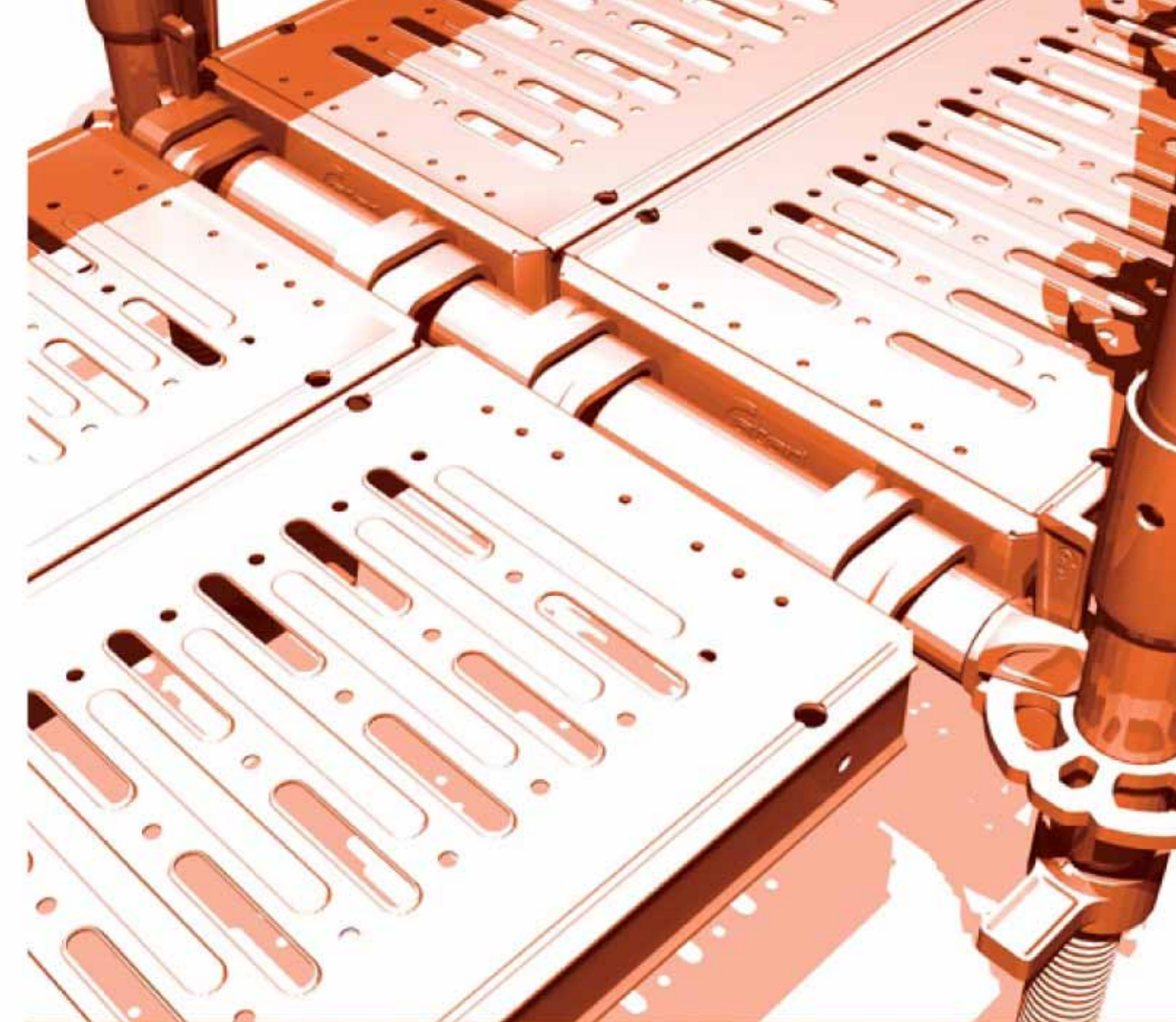
08



8_toe boards

collocation of an intermediate terminal notch, between the decks; it is an element of relevant importance as far as security is concerned, it avoids the accidental rising of the decks, helping to a higher stability in the scaffolding's level too;





UNIVERSALSYSTEM

COMPONENTS AND ACCESSORIES





VERTICAL

code	dimension weight (kg)		code	dimension weight (kg)		description
US.VT.1000	1.0	5.5	US.VS.1500	1.5	6.8	
US.VT.1500	1.5	7.8	US.VS.2000	2.0	8.0	
US.VT.2000	2.0	10.2	US.VS.2500	2.5	11.7	
US.VT.2500	2.5	12.2	US.VS.3000	3.0	13.7	
US.VT.3000	3.0	14.6				
US.VS.500	0.5	2.5				
US.VS.1000	1.0	4.5				



HORIZONTALS

code	dimension weight (kg)		code	dimension weight (kg)		description
US.HZ.730	0.73	3.4	US.HZ.2070	2.07	7.6	
US.HZ.1090	1.09	4.6	US.HZ.2570	2.57	9.30	
US.HZ.1570	1.57	6.0	US.HZ.3070	3.07	11.0	



U HORIZONTALS

code	dimension weight (kg)		description
US.HZ.U.730	0.73	3.0	



HORIZONTALS U REINFORCED

code	dimension weight (kg)		description
US.HZ.U.1090	1.09	5.0	



DIAGONALS

code	dimension weight (kg)		code	dimension weight (kg)		description
US.DG.2000.730	2.0x0.73	7.3	US.DG.1500.2070	1.5x2.07		
US.DG.2000.1090	2.0x1.09	7.7	US.DG.1500.2057	1.5x2.57		
US.DG.2000.1570	2.0x1.57	8.4	US.DG.1500.3070	1.5x3.07		
US.DG.2000.2070	2.0x2.07	9.2	US.DG.1000.730	1.0x0.73		
US.DG.2000.2570	2.0x2.57	10.3	US.DG.1000.1090	1.0x1.09		
US.DG.2000.3070	2.0x3.07	11.4	US.DG.1000.1570	1.0x1.57		
US.DG.1500.730	1.5x0.73		US.DG.1000.2070	1.0x2.07		
US.DG.1500.1090	1.5x1.09		US.DG.1000.2570	1.0x2.57		
US.DG.1500.1570	1.5x1.57		US.DG.1000x3070	1.0x3.07		



STEEL PLATFORMS

code	dimension weight (kg)		code	dimension weight (kg)		description
US.PL.0730	0.73	6.0	FA.PL.0730	0.73	6.0	
US.PL.1090	1.09	11.0	FA.PL.1090	1.09	11.0	
US.PL.1570	1.57	13.0	FA.PL.1570	1.57	13.0	
US.PL.2070	2.07	15.0	FA.PL.2070	2.07	15.0	
US.PL.2570	2.57	17.0	FA.PL.2570	2.57	17.0	
US.PL.3070	3.07	20.5	FA.PL.3070	3.07	20.5	



START PEICE

code	dimension weight (kg)		description
US.CL	0.25	1.6	

ALUMINIUM AND WOOD PLATFORM

code	dimension weight (kg)		code	dimension weight (kg)		description
US.PAM.1570	1,57	12,1	FA.PAM.1570	1,57	12,1	
US.PAM.2070	2,07	14,6	FA.PAM.2070	2,07	14,6	
US.PAM.2570	2,57	18,0	FA.PAM.2570	2,57	18,0	
US.PAM.3070	3,07	21,0	FA.PAM.3070	3,07	21,0	

This is a wood platform (phenol anti-slip panel) assembled on a metallic structure (aluminium).

ACCESS DECK/LADDER PLATFORM

code	dimension weight (kg)		code	dimension weight (kg)		description
US.PA.2070	2,07	20,0	FA.PA.2070	2,07	20,0	
US.PA.2570	2,57	23,0	FA.PA.2570	2,57	23,0	
US.PA.3070	3,07	25,0	FA.PA.3070	3,07	25,0	

This double platform replaces the use of two conventional steel decks, having the advantage of reducing the equipment weight making easier its assembling/ disassembling. This highly professional solution is the best option for the rental market as reduces the assembling/disassembling time. The main structure is made of aluminium and the floor is in phenol anti slip panel.

TOP AND FRONTAL TOE BOARDS

code	dimension weight (kg)		code	dimension weight (kg)		description
US.RP.730	0,73	2,7	US.RP.2070	2,07	5,4	
US.RP.1090	1,09	3,6	US.RP.2570	2,57	6,4	
US.RP.1570	1,57	4,6	US.RP.3070	3,07	7,6	

It is a protection element (against objects' falling) of the working platform. It is made of wood (with special treatment) with special tops for a perfect attachment in the scaffolding.

STAIRCASE

code	dimension weight (kg)	
USEP. 2570	2,0x2,57	23,0
USEP. 3070	2,0x3,07	28,0

description

It gives the possibility of having exterior access to the scaffolding giving a comfortable mobility between the different levels. Made of aluminium, it is extremely light and easy to handle.

OUTSIDE STAIRCASE RAIL

code	dimension weight (kg)	
FA.CE.	2,0x2,57	16,0

description

It is used as a lateral protection of the exterior staircase. It is made of steel tube with 32mm diameter.

BRIDGE BEAM

code	dimension weight (kg)		code	dimension weight (kg)		description
US.VP.1570	1,57	9,60	US.VP.3070	3,07	21,0	
US.VP.2070	2,07	12,8				
US.VP.2570	2,570	17,5				

For spans superior to 1,5m the horizontals become transom bridges in order to bear higher loads. They are made of steel tube hot-dip galvanized. They have in their extremities endings to be able to adapt perfectly to the rosettes from the verticals. This transom can be used as a structural element.

U BRIDGE BEAM

code	dimension weight (kg)		description	
US.VPU.1570	1,57	9,60	US.VPU.3070	3,07 21,0
US.VPU.2070	2,07	12,8		
US.VPU.2570	2,570	17,5		

description

SECURITY BOLT

code	dimension weight (kg)		description	
US.FS.730	0,73	1,2	US.FS.2070	2,07 7,4
US.FS.1090	1,09	1,7	US.FS.2570	2,57 8,5
US.FS.1570	1,57	3,0	US.FS.3070	3,07 11,5

description

Made of steel plate and hot-dip galvanized it has double functionality. It prevents that FA 48 decks accidentally rise and prevents the accumulation of dirtiness in transom bridges and U console's notches.

TRANSOM BRACKET

code	dimension weight (kg)		description	
US.VS.4014	4,14	44,6		
US.VS.5014	5,14	54,0		
US.VS.6014	6,14	63,5		

description

Made of 48,3mm diameter steel tube hot-dip galvanized it has 50cm high and it has 4 ends in the extremities which adapt to the rosettes in the verticals.



TRANSOM PASSAGE

code	dimension weight (kg)	
US.VP	1.57	21.0

description

It is used when the scaffolding is assembled in places where it is necessary to limit pedestrian corridors. It is made of 48,3mm diameter steel tube hot-dip galvanized. It allows the assembly of a 0,73m or 1,09m scaffolding.



TRANSOM U PASSAGE

code	dimension weight (kg)	
US.VP.U	1.57	20.0

description

This transom is different from transom passage in its superior crossbeam. The tube was replaced by a U profile to be possible the use of scaffolding FA 48 decks.



LEVELLING BASE

code	dimension weight (kg)	
AA.BN.500	0.50	3.3
AA.BN.700	0.70	4.5

description

Whenever working in unlevelled grounds this component should be used as it allows the levelling in height. The levelling is done by a screwed assemblage allowing infinite refining. It is hot galvanized.



LEVELLING BASE WITH COUPLERS

code	dimension weight (kg)	
AA.NA	0.70	5.9

description

It is used to level the scaffolding whenever this is supported on a tube-shaped structure.



ADJUSTABLE TOP BASE

code	dimension weight (kg)	
AA.CR	0.70	5.9

description

Made of hot-dip galvanized steel it is used as support to the framework steams transferring the load to the verticals.



BRACKET

code	dimension weight (kg)	
AA.CS.320	0.32	3.9
AA.CS.730	0.73	6.4

description

They allow the scaffolding's adaptation to irregular fronts amplifying the working surface. Made in steel tube hot-dip galvanized they have an end to be able to adapt to the verticals.



CONSOLES U

code	dimension weight (kg)	
US.CS.U.320	0.32	3.5
US.CS.U.730	0.73	6.0

description

Having the same function as the tubo console it allows the use of FA 48 decks.



BRACKET'S SUPPORTING TUBE

code	dimension weight (kg)	
AA.TC	2.0	7.5

description

It is used as support for the 0,73m console. It is made of steel tube of high quality and hot-dip galvanized.



ANCHOR CLAMP

code	dimension weight (kg)		code	dimension weight (kg)		description
AA.GA.500	0.50	1.9	AA.GA.1500	1.5	4.8	It is used to attach the scaffolding to the front. It guarantees scaffolding's stability even with strong winds. It is made of steel tube hot-dip galvanized.
AA.GA.1000	1.0	3.2	AA.GA.2000	2.0	7.0	



SCREW LOOP/ANCHOR EYEBOLT

code	dimension weight (kg)	
AA.OL.120	0.12	0.16
AA.OL.190	0.19	0.18

description

This is an accessory for the scaffolding's attachment to the front. It is made of steel and it is characterized by its special screw which guarantees a safe anchorage.



STOPPER/WALL PLUG

code	dimension weight (kg)	
AA.BC.90	0.06	0.01
AA.BC.100	0.10	0.01

description

This is a stopper prepared for great efforts and to work together with the loop. It is indicated for attachment in solid elements such as concrete, ceramic tiles etc...



NUT SCREW

description

This is a screw with a m12x65 nut to use together with the connection spigot.



FIXATION PLATE

code	dimension weight (kg)	
AA.PF	220x200x5	3.5

description

This is a multifunction element that it is used, for example, to attach an advertising plate to a 48,3mm diameter tube or to create an additional anchorage, perpendicular to the front line. It consists of a 250mm tube welded on a 220x220mm base with 5mm thickness.



VERTICALS CONNECTION SPIGOT

code
US.EC

description

It is used to connect verticals without spigot or beams. It has 4 holes for M12 screws.



SPIGOT FOR JOINTING

code	weight (kg)
AA.EE	1.3

description

It has as main function joining two 48,3mm diameter tubes. It is totally made of steel and consists of two cross endings with a 48,3mm diameter bushing in the centre.



LOOP/PIG TAIL

code	dimension weight (kg)	
AA.PS	0.25	0.13

description

It should always be used to guarantee a perfect connection between the verticals.



COUPLERS

code	weight (kg)	description
AA.OT	1.20	01_orthogonal coupler
AA.AF	0.65	02_ball coupler
AA.AD.48	1.50	03_double coupler
AA.AR	0.80	04_coupler for toe boards
AA.AE	0.90	05_coupler with spigot
AA.OG	1.40	06_swivel coupler



OBSERVATIONS



Obs

SECURITY AND USE ADVICES

The security of each worker is an essential value and we consider indispensable the accomplishment of the Security, Hygiene and Health in work Plan. Therefore, this should be considered at work as a group task and not as a set of imposed administrative procedures.

The scaffolding construction in a safe way implies the responsibility of all the intervenient parts in its conception and construction process.

It is essential to guarantee its security as well as users' or others' who may be affected by its actions.

Scaffoldings without security are an important cause for accidents. The risks are bigger for those who don't know or don't prevent them. Avoid accidents.

Take special cares when you begin the scaffolding assembly; confirm if the scaffolding is adequate concerning height, the number of people that are going to use it, the work that has to be done and the protections required by law;

Check ground's solidity; check and use resistant bases to support the loads transmitted by the plumb line.

Even if the ground is solid you should be aware that rain may reduce considerably its resistance capacity. Therefore, it is essential to distribute the loads transmitted by the plumb lines by elements of higher sections and strength, interpolated between the bases and the ground in order to reduce the tensions invested;

Observe the manual of assembly instructions and, if it is the case, follow the imposed dispositions by the given project;

Use the security individual protection equipments;

Assure the adequate anchorage using the prescribed moorings; these should be done in stable and resistant zones such as those of concrete.

You shouldn't do anchorage in points which don't guarantee the necessary resistant capacity.

Don't forget that to determine the number of anchorages you should know if the scaffolding will be lined with protection net; anchorages should be reinforced due to the accidental action of the wind. If necessary you should consult a specialized technician to do the necessary calculations. Don't allow intervals superior to 30cm between the wall and the scaffolding ground and establish interior guard

ralls when the span is superior. Establish appropriate accessibilities between the different levels in the scaffoldings.

Portugal '07

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