



Please state required colour:

A = aluminium anodized

W = white

F = colour according RAL-card

When using MODUL Double-Deck constructions,
use only bolts and brackets supplied by MODUL.

Especifique el color deseado:

A = aluminio anodizado en natural

W = esmaltado en blanco

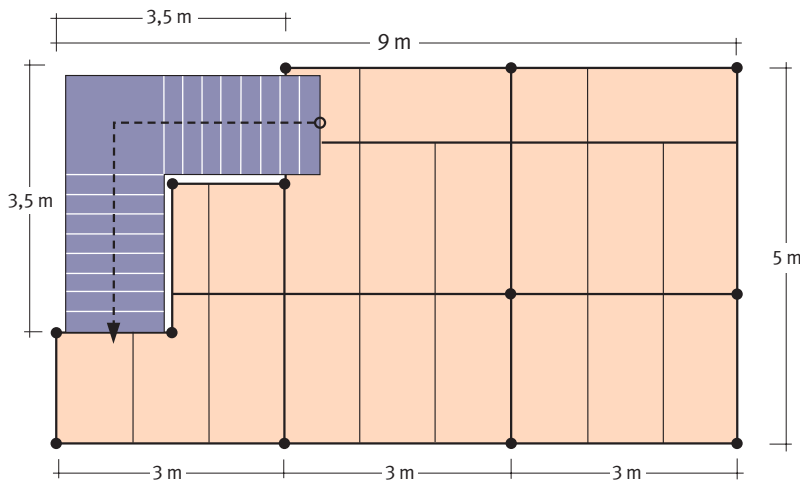
F = esmaltado en color, segun carta RAL

Para la construcción del MODUL Doble Plantas
sólo se deben usar tornillos y piezas de unión
angulares de MODUL.

Double-Deck Doble Plantas

6.5	Support columns	Perfiles verticales
6.6	Main crossbeams	Vigas
6.9	Accessories	Accesorios
6.13	Base plates	Placas de fondo

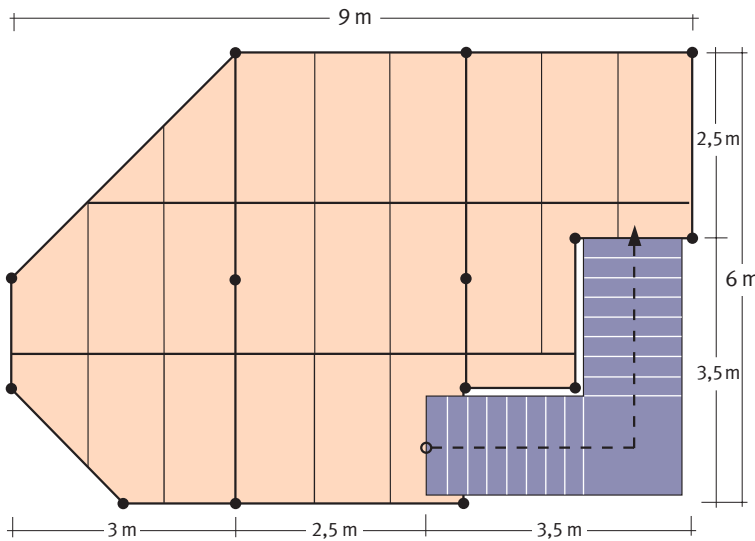
6.1 - 6.13



Designers and contractors will find these examples of Double-Deck plans easy to follow. Standard designs are based on spans between 3 and 5 metres and 90° and 45° degree angles.

It is possible to cantilever first-floor constructions by up to 1 metre, but it is advisable that at all stages of design, MODUL's technical advice be enlisted to guarantee structural stability and compliance with Local Authority and/or exhibition ground requirements.

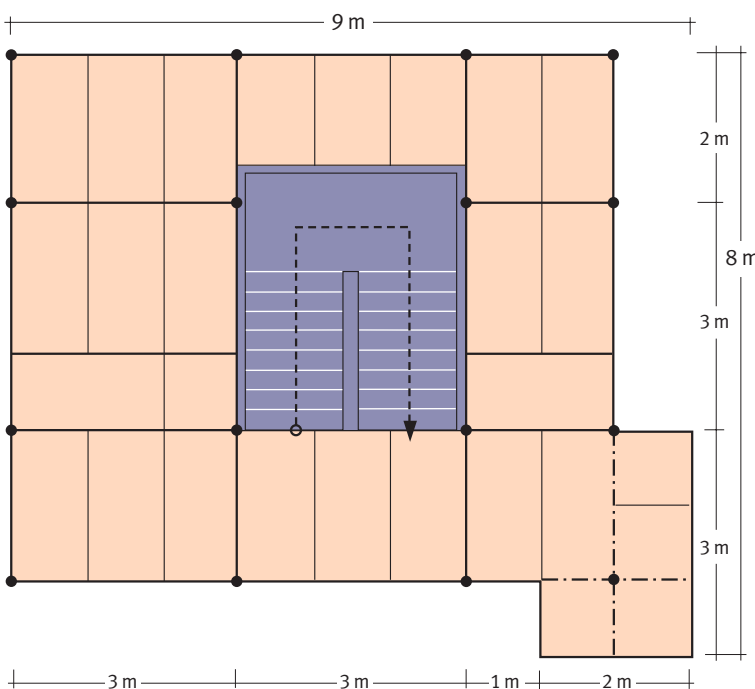
As interpretation of Building Regulations is a matter for individual Authorities, the position, dimension and construction detail of staircases is best resolved locally. Once determined MODUL will manufacture and supply to specification.

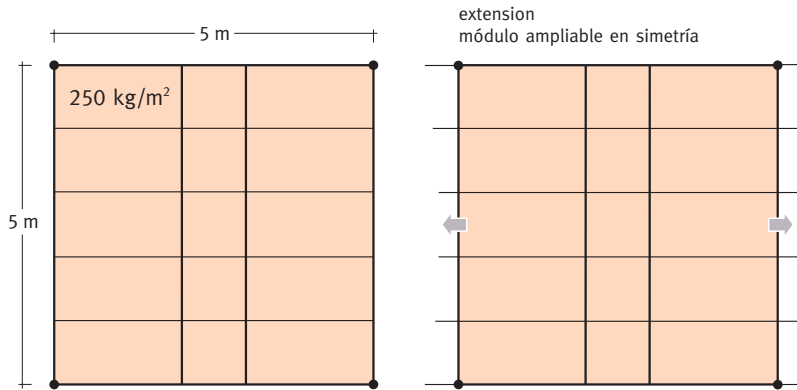


Al diseñar su Doble Planta, no tiene que limitarse a ángulos rectos de 90°. Igualmente son posibles construcciones con ángulos de 135°.

Otros planos horizontales, p. ej. con formas redondas, son también realizables en cierta medida. Le recomendamos discutir estos conceptos de antemano con nuestro departamento de planificación.

Dependientemente de la carga también son posibles salientes "tipo balcón" de un metro.



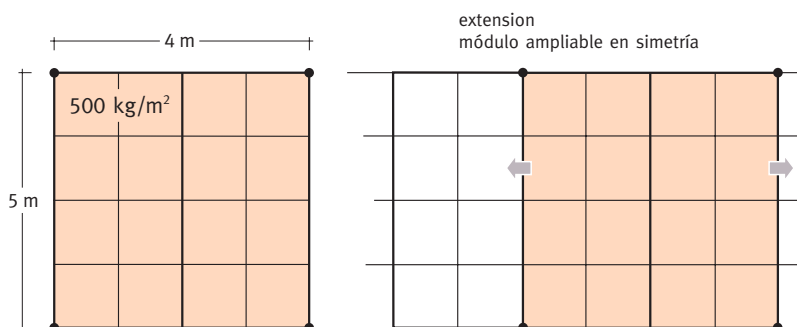
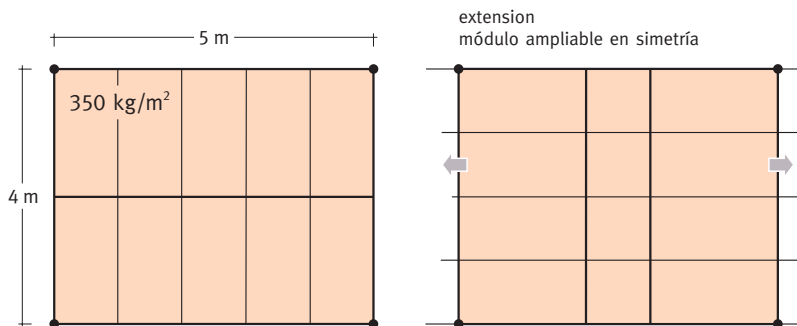
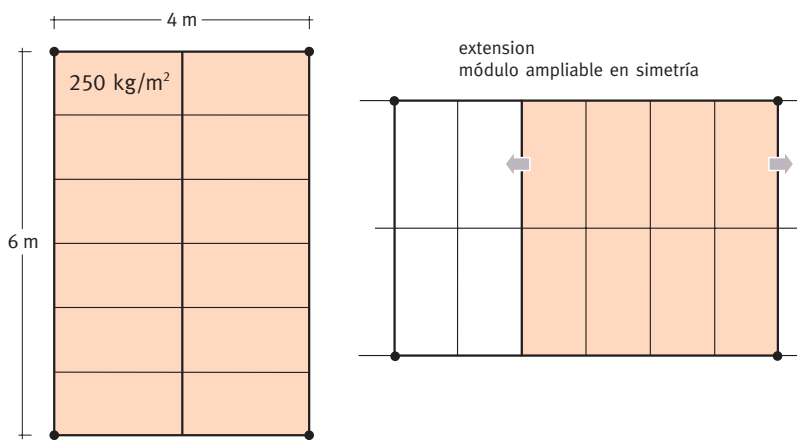


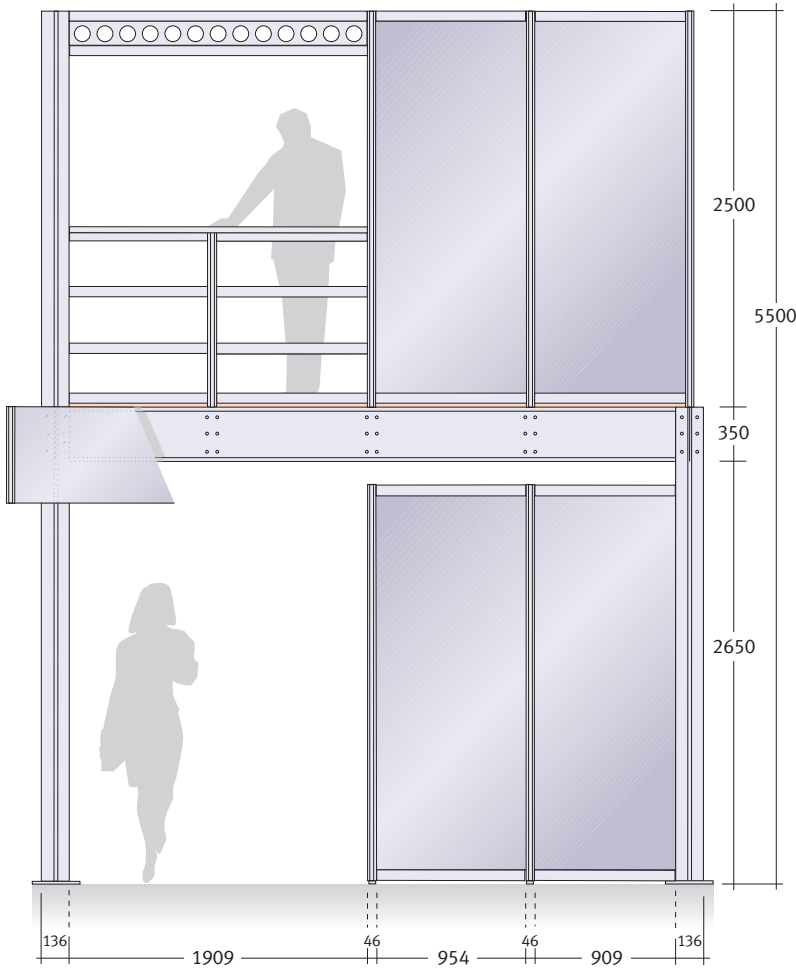
The MODUL Double-Deck structure is designed to accept loadings of up to 500 kg/m² (in certain circumstances loadings below this limit may meet Local Authority and/or exhibition ground requirements, but once the layout of the Double-Deck platform is agreed, structural calculations can be produced by our technical department.)

Los perfiles verticales y las vigas del programa Doble Plantas de MODUL son concebidos para una carga móvil máx. de 500 kg por m².

La distancia entre los perfiles verticales determina la carga admisible de la construcción de la doble planta. La carga móvil requerida depende de la utilización prevista. La carga más corriente es de 350 kg por m².

No obstante le recomendamos obtener una confirmación oficial de la feria o del salón. Sobre lo que piden también nos encargamos de los cálculos de carga necesarios.



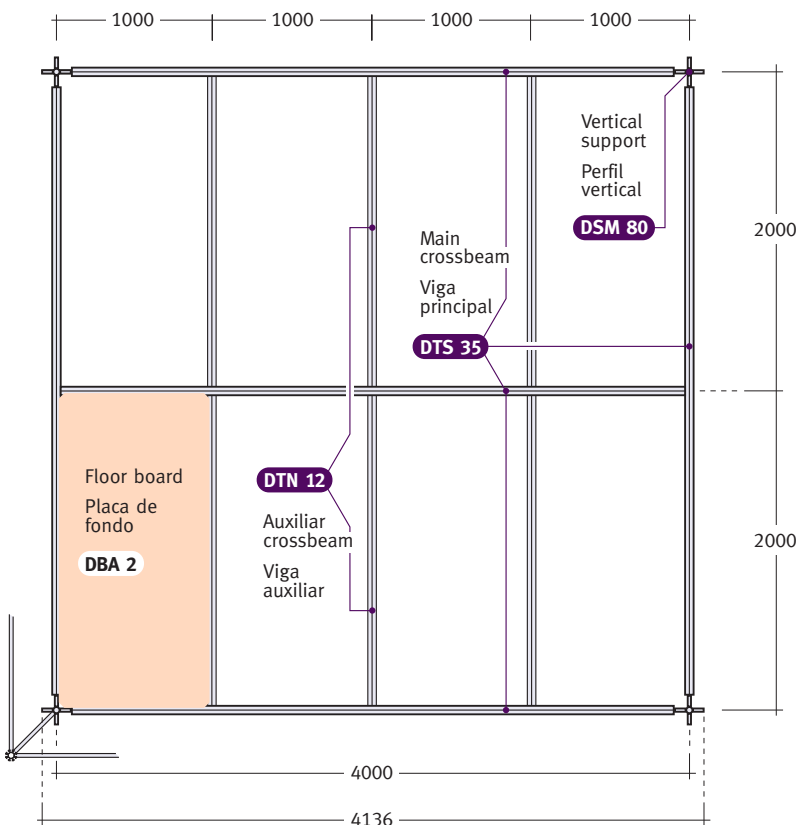


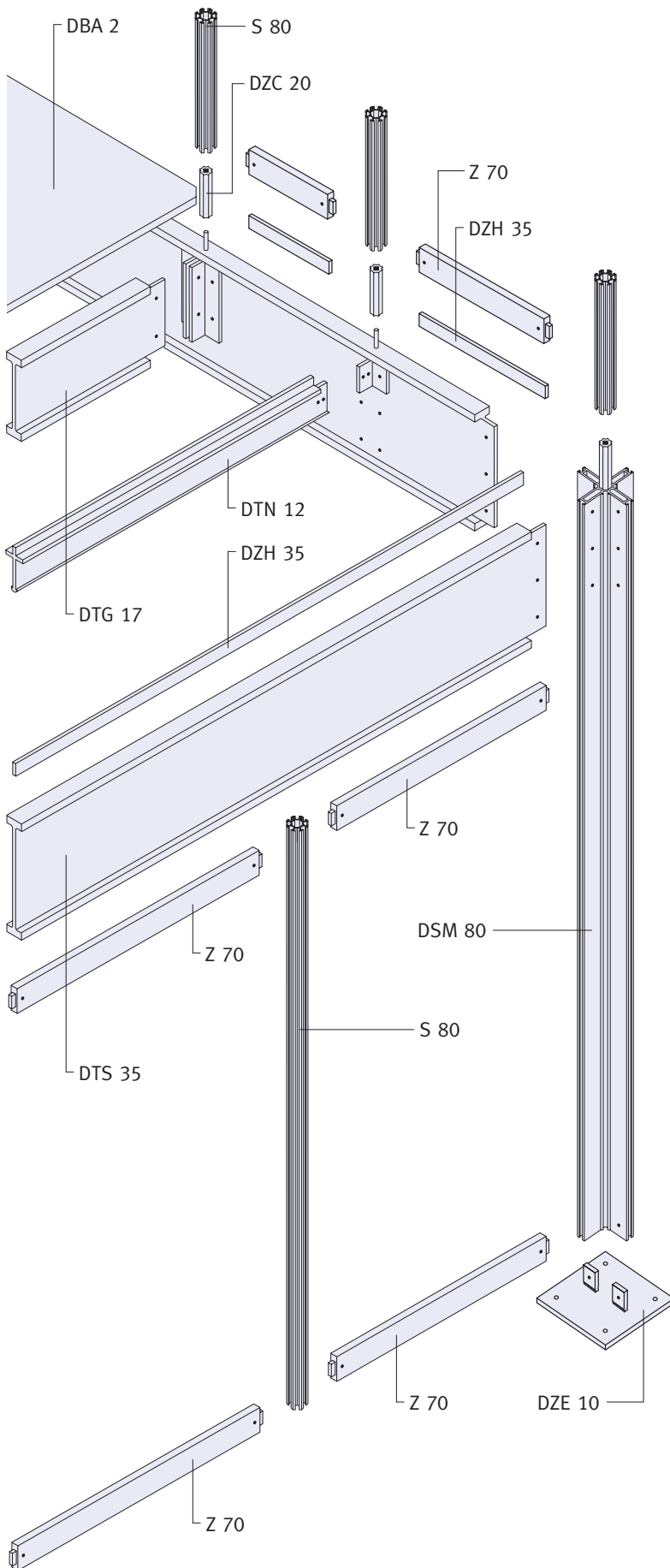
Double-Deck is based on a 1000 mm grid to maximise compatibility with stock 954 mm beams and 2500 mm uprights. However, when a crossbeam is connected to the structural column, this length is reduced to 909 mm.

The 150 mm clearance between the underside of the main crossbeam and standard 2500 mm height of wall construction provides plenty of space for cabling, wiring, plumbing and other services which may be required on the stand.

El modulo estándar de la construcción MODUL Doble Planta tiene una longitud de eje a eje de 1000 mm. La altura del primer piso es de 3000 mm. De esta manera puede utilizar los perfiles horizontales y verticales tanto para el plano horizontal como para la construcción vertical de plantas.

Entre la altura estándar de 2500 mm y el canto inferior del soporte doble plantas, dispone Usted de un espacio libre de 150 mm para la colocación de los cables de alimentación.



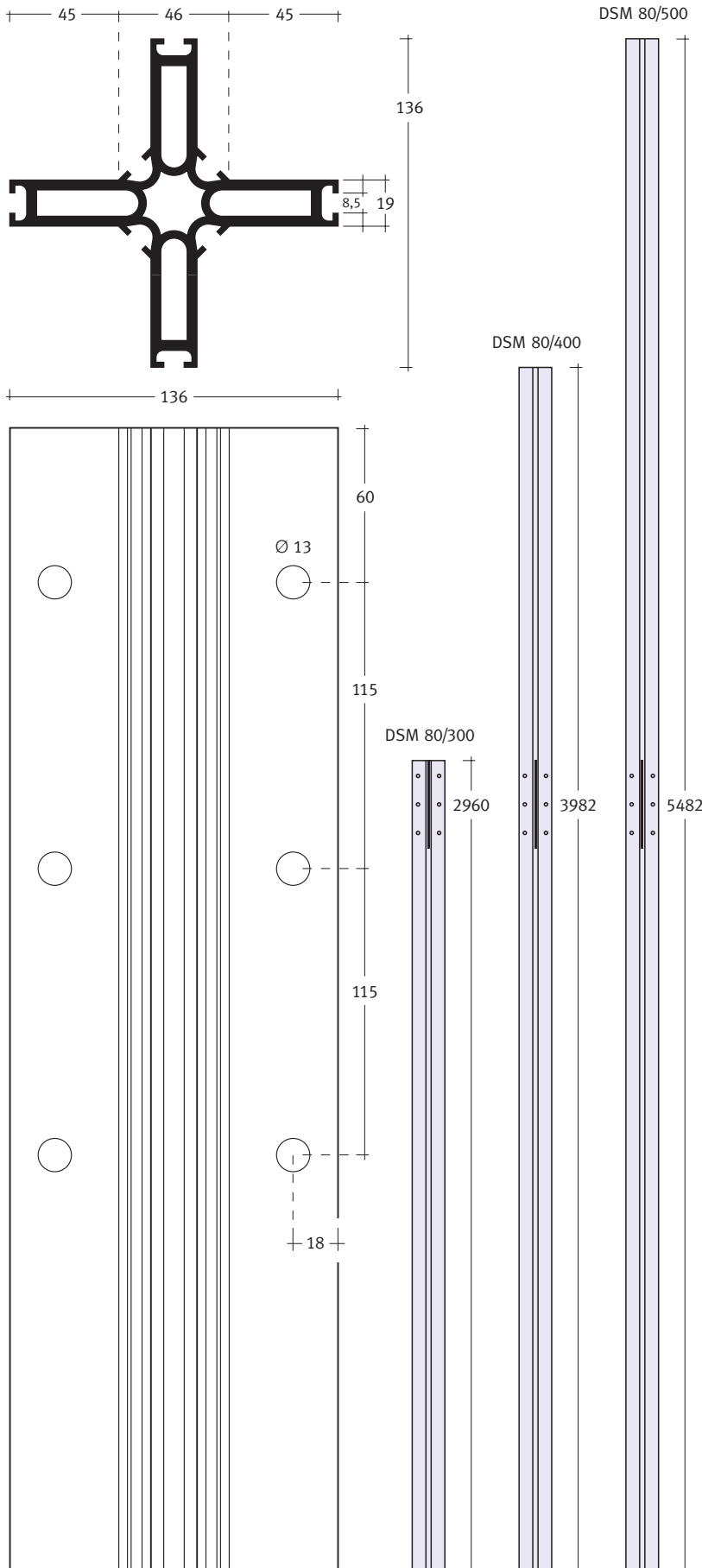


To construct a Double-Deck platform there are only a few elements required. The Double-Deck supports as well as main, secondary and auxiliary supports are the bearing pieces of the construction.

They are screwed together and stabilized by vertical panels. To construct the ground and first floor, the MODUL standard elements are used.

Para el montaje de una Doble Planta se requieren muy pocos elementos. Perfiles verticales del Doble Planta, las vigas principales, intermedias y auxiliares.

Estas se atornillan entre sí y se estabilizan con paneles verticales. Para el ensamble de la planta baja se utilizan los elementos estándar de la gama MODUL Doble Planta.



The column, DSM 80, is based on the standard S 80 profile to ensure complete compatibility with all other profiles in the MODUL Range. As beam connections can be made at both 45° and 90°, the system offers considerable flexibility in design whilst maintaining a constant 1000 mm grid pattern.

Standard lengths of the DSM 80 column are 2960 mm, 3982 mm and 5482 mm. However, the column length can be varied as required to meet specific requirement.

El perfil vertical del doble plantas DSM 80 está basado en el perfil vertical S 80 de la gama estándar de MODUL. A ello se unen 4 perfiles horizontales Z 45. Esta construcción garantiza el respeto de las unidades de medida de MODUL y por ello la compatibilidad con el programa estándar.

Acabados especiales bajo pedido. Los largos estándar de los perfiles son de 2960 mm, 3982 mm y de 5482 mm. Medidas diferentes bajo pedido.

DSM 80/300

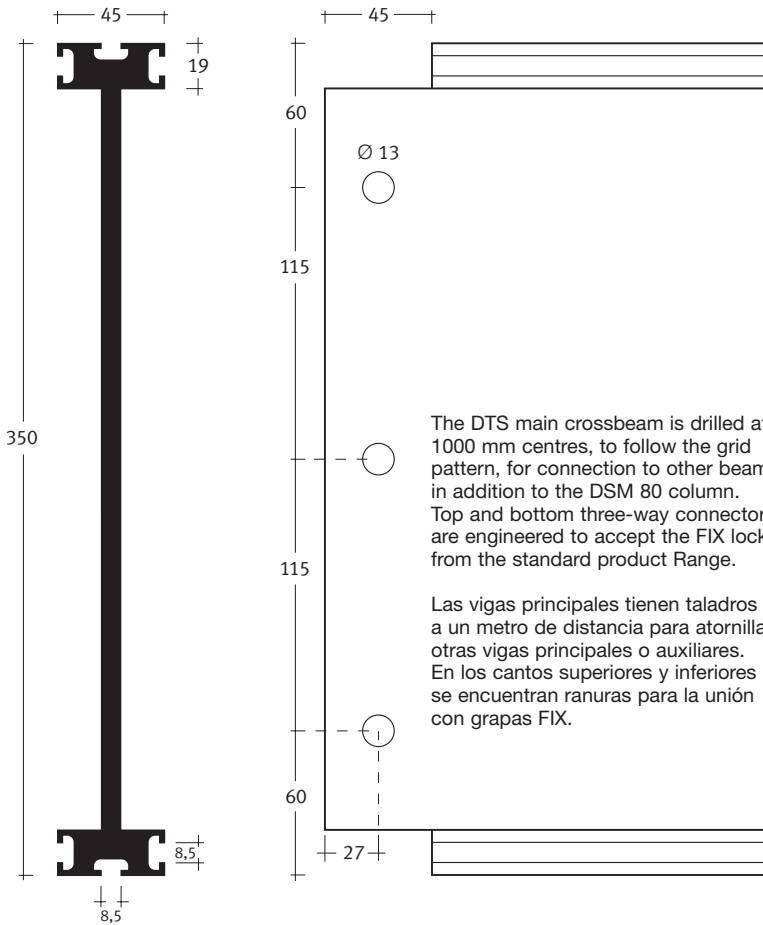
Vertical support **Perfil vertical**
Length = 2960 mm Largo = 2960 mm

DSM 80/400

Vertical support **Perfil vertical**
Length = 3982 mm Largo = 3982 mm

DSM 80/500

Vertical support **Perfil vertical**
Length = 5482 mm Largo = 5482 mm



The main crossbeam is 350 mm high and available in lengths up to a maximum = 5954 mm.

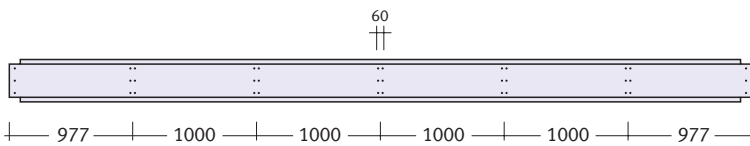
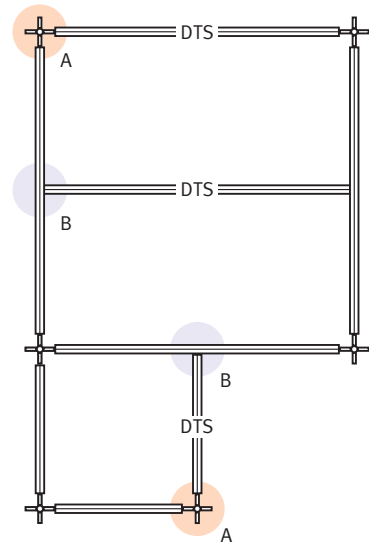
La viga principal es de 350 mm de altura y tiene un largo máx. de 5954 mm = 6 módulos.

The main crossbeam can be connected in two ways:

La viga principal DTS ofrece dos posibilidades de conexión:

- A) crossbeam to column
- B) crossbeam to crossbeam

- A) Viga a perfil
- B) Viga a viga



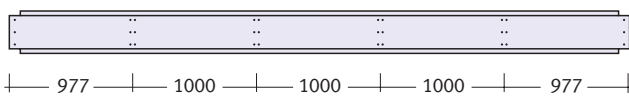
Main crossbeam

Vigas principales

DTS 35/600

Length = 5954 mm

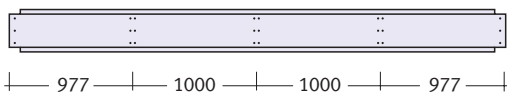
Largo = 5954 mm



DTS 35/500

Length = 4954 mm

Largo = 4954 mm



DTS 35/400

Length = 3954 mm

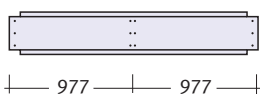
Largo = 3954 mm



DTS 35/300

Length = 2954 mm

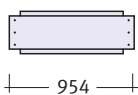
Largo = 2954 mm



DTS 35/200

Length = 1954 mm

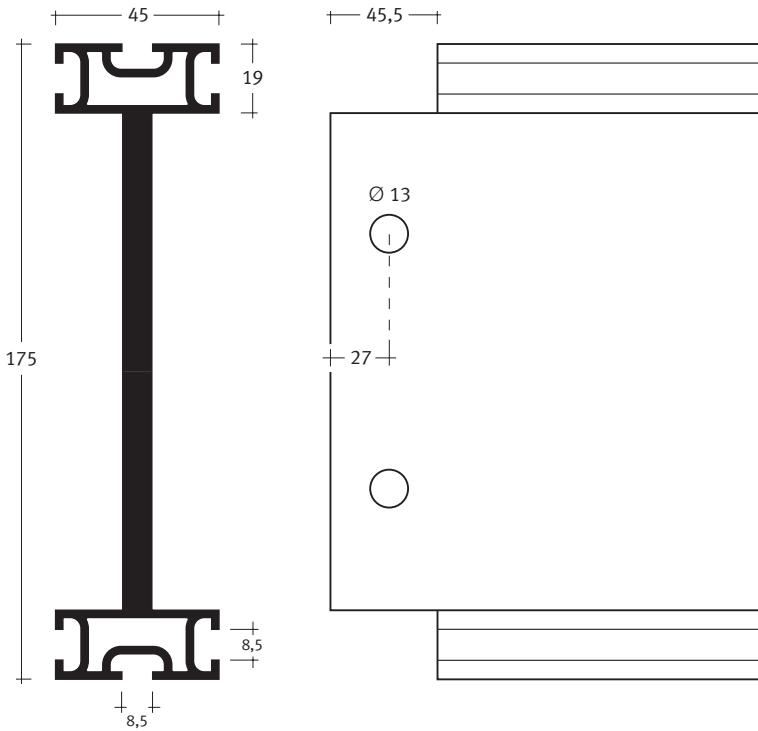
Largo = 1954 mm



DTS 35/100

Length = 954 mm

Largo = 954 mm



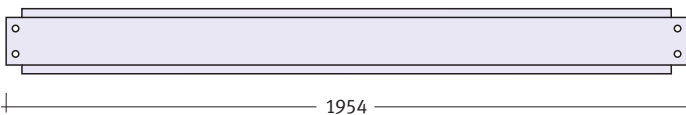
The large secondary crossbeam is 175 mm high and has a maximum length of 1991 mm. It is used when a loading capacity of 500 kg/m² is required and is fixed to the main crossbeam by the DWM 13 connector.

Special lengths on request.

Las vigas intermedias tienen una altura de 175 mm y un largo máx. de 1991 mm. Sólo son necesarias para cargas de 500 kg/m².

La viga intermedia se enrosca a la viga principal mediante dos ángulos DWM 13.

Otras medidas bajo pedido.



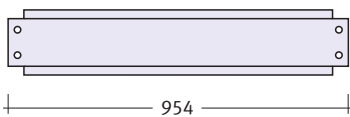
DTG 17/200

Large secondary crossbeam

Length: 1954 mm

Viga intermedia

Largo: 1954 mm



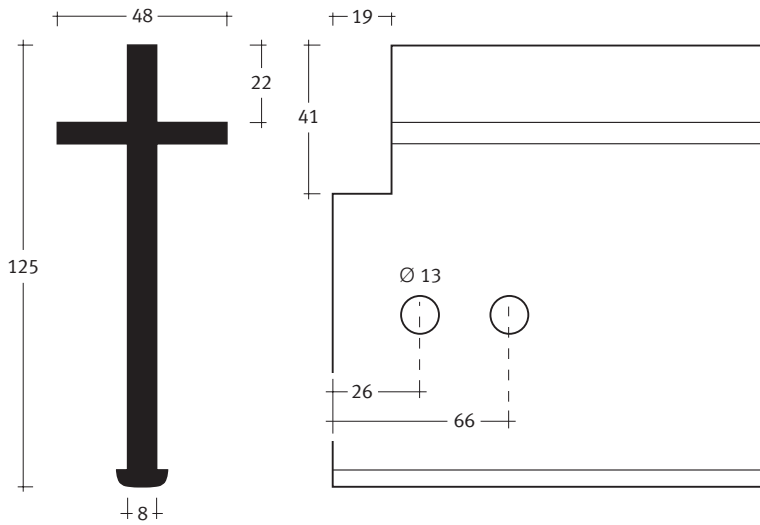
DTG 17/100

Large secondary crossbeam

Length: 954 mm

Viga intermedia

Largo: 954 mm

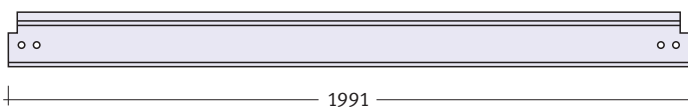


The auxiliary crossbeam is 125 mm high and has a maximum length of 1991 mm. It is used to support and stabilise the floor decking and is fixed to the main crossbeam using M 12 DZA screws and DWK 8 connector .

Special lengths on request.

Las vigas auxiliares pequeñas tienen una altura de 125 mm y un largo máx. de 1991 mm. Sirve para soportar y estabilizar las placas de suelo. La viga auxiliar se conecta a la viga principal mediante el tornillo M 12 DZA y el ángulo DWK 8.

Otras medidas bajo pedido.



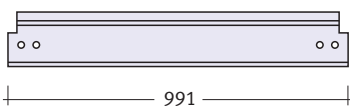
DTN 12/200

Auxiliary crossbeam

Length: 1991 mm

Viga auxiliar

Largo: 1991 mm



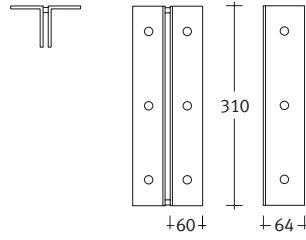
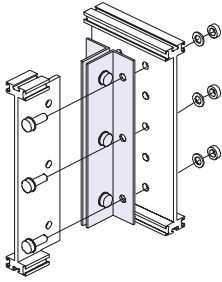
DTN 12/100

Auxiliary crossbeam

Length: 991 mm

Viga auxiliar

Largo: 991 mm



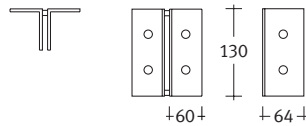
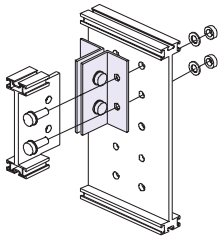
DWG 31

Aluminium Bracket 90°

4 mm gauge,
Sides 50 x 64 mm long,
height 310 mm for joining
one main beam to another
main beam.

Angulo 90°

Angulo de aluminio, de espesor
4 mm, de medida lateral
50 x 64, altura 310 mm,
para unir una viga principal
a una viga principal



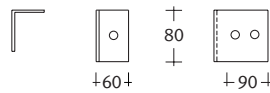
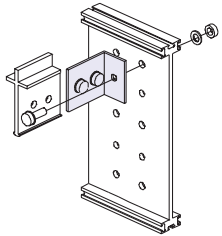
DWM 13

Aluminium Bracket 90°

4 mm gauge,
Sides 50 x 64 mm long,
height 130 mm for joining
one auxiliary beam to one
main beam.

Angulo 90°

Angulo de aluminio, de espesor
4 mm, de medida lateral
50 x 64, altura 130 mm,
para unir una viga intermedia
a una viga principal



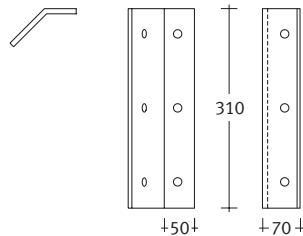
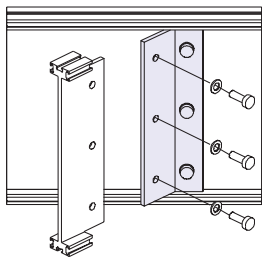
DWK 8

Aluminium Bracket 90°

4 mm gauge,
Sides 50 x 64 mm long,
height 80 mm for joining one
auxiliary to one main beam.

Angulo 90°

Angulo de aluminio, de espesor
4 mm, de medida lateral
60 x 90, altura 80 mm,
para unir una viga auxiliar
a una viga principal



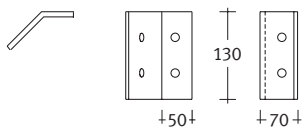
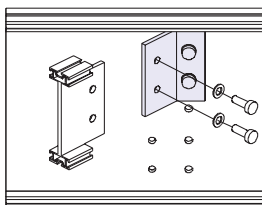
DWG 33

Steel Bracket 135°

8 mm gauge,
Sides 50 x 64 mm long,
height 310 mm for joining
one main beam to another
main beam.

Angulo 135°

Angulo de acero, de espesor
8 mm, de medida lateral
70 x 50, altura 310 mm,
para unir una viga principal
a una viga principal



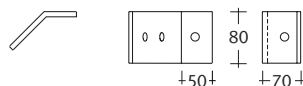
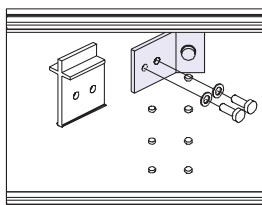
DWM 14

Steel Bracket 135°

8 mm gauge,
Sides 70 x 50 mm long,
height 130 mm for joining
one auxiliary to one main
beam.

Angulo 135°

Angulo de acero, de espesor
8 mm, de medida lateral
70 x 50, altura 130 mm,
para unir una viga intermedia
a una viga principal



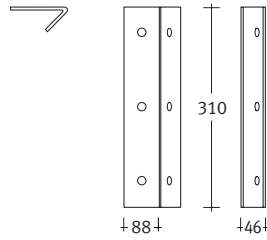
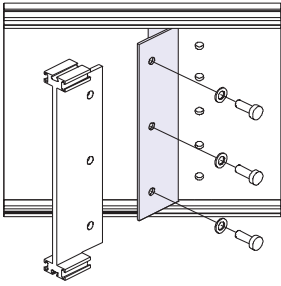
DWK 9

Steel Bracket 135°

8 mm gauge,
Sides 70 x 50 mm long,
height 80 mm for joining one
auxiliary to one main beam.

Angulo 135°

Angulo de acero, de espesor
8 mm, de medida lateral
70 x 50, altura 80 mm,
para unir una viga auxiliar
a una viga principal



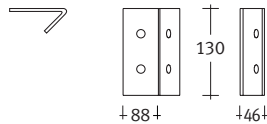
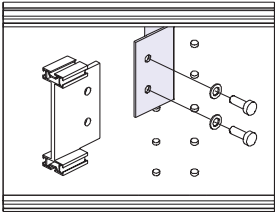
DWG 32

Aluminium Bracket 45°

4 mm gauge,
Sides 88 x 46 mm long,
height 310 mm for joining
one main beam to another
main beam.

Angulo 45°

Angulo de aluminio, de espesor
4 mm, medida lateral
88 x 46, altura 310 mm,
para unir una viga principal
a una viga principal



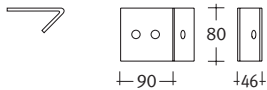
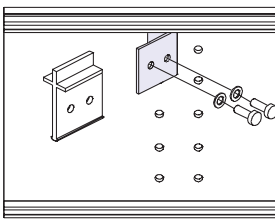
DWM 15

Aluminium Bracket 45°

4 mm gauge,
Sides 88 x 46 mm long,
height 130 mm for joining
one auxiliary to one main
beam.

Angulo 45°

Angulo de aluminio, de espesor
4 mm, medida lateral
88 x 46, altura 130 mm,
para unie una viga intermedia
a una viga principal



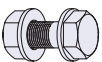
DWK 10

Aluminium Bracket 45°

4 mm gauge,
Sides 88 x 46 mm long,
height 130 mm for joining
one auxiliary to one main
beam.

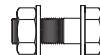
Angulo 45°

Angulo de aluminio, de espesor
4 mm, medida lateral
90 x 46, altura 80 mm,
para unir una viga auxiliar
a una viga principal



M12 bolts / DIN 7990
washers / DIN 125
nuts / DIN 555

Tornillos M12 / DIN 7990
Arandelas / DIN 125
/ DIN 555



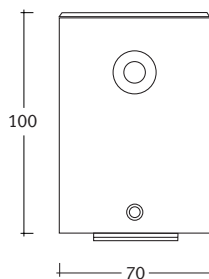
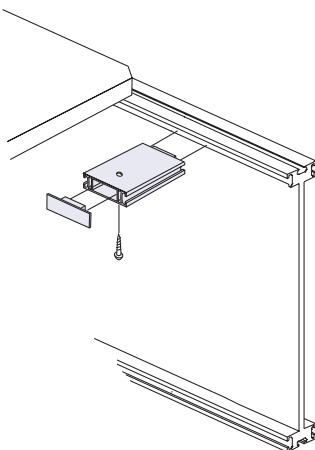
30
35
65

DZA 30/35/65

Bolts

Tornillos

DZA 30 = M 12/30 angle bracket to beam / unión ángulo/viga
DZA 35 = M 12/35 support to beam / unión perfil/viga
DZA 65 = M 12/65 brace to beam / unión armado a viga



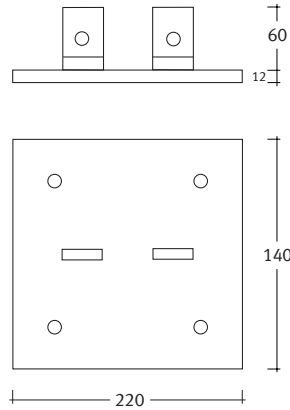
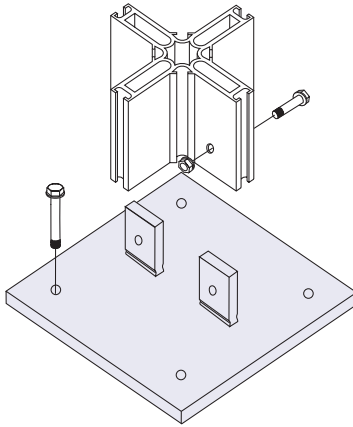
DZG 35

Crossbeam connector

Fixing block Z 72
to connect the
floor board with
the secondary or
main crossbeam.

Pieza de fijación

Pieza para perfil Z 72
para la fijación
de la placa de suelo
a la viga intermedia
o a la viga principal

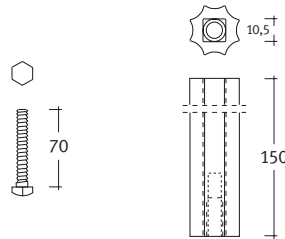
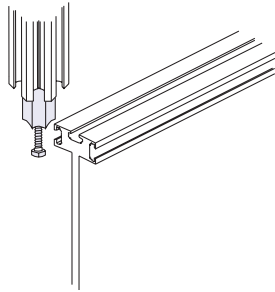


DZE 10

Base plate
220 x 220 mm
for support columns

Placa de suelo

Placa de acero galvanizado 220 x 220 mm para la fijación del perfil vertical Doble Plantas.

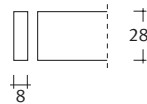
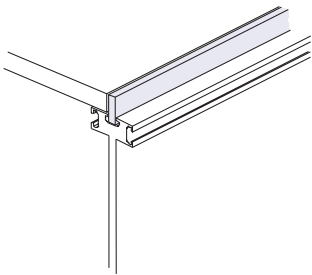


DZC 20

Aluminium insert
for S 80
to main crossbeam connection

Fijación perfil vertical

Pieza de unión de aluminio para perfil S 80 con clavija insertada y tornillo

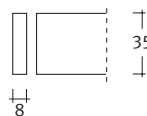
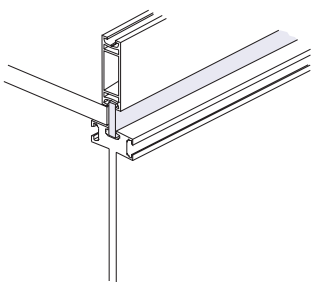


DZF 28

Wooden wedge
to prevent movement of floor boards

Fijación placa de suelo

Perfil de madera para clavar las placas de suelo

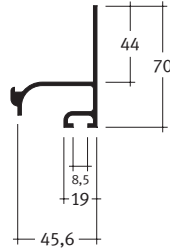
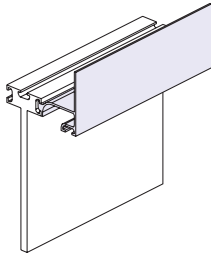


DZH 35

Aluminium wedge
to secure floor boards and bottom profile beams

Fijación perfil horizontal

Perfil de aluminio para clavar las placas de suelo y para colocar los perfiles horizontales



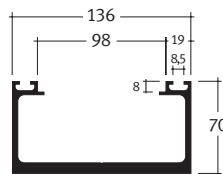
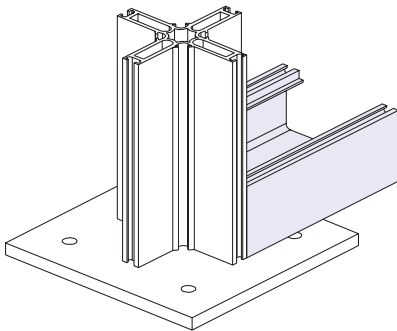
DBV

Edge trim

for floor boards
*A/W/F
max. length 6 m

**Perfil
de tope**

para placa de suelo
*A/W/F
Largo max. 6 m



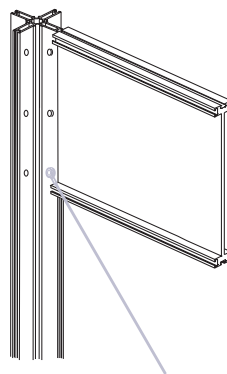
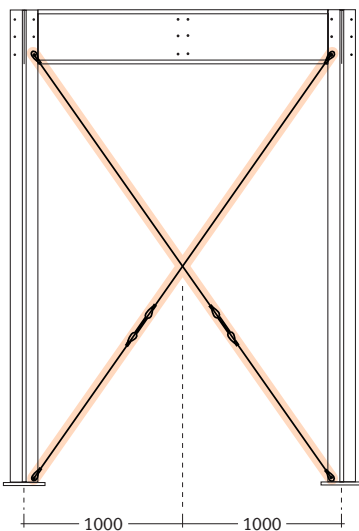
DSP 136

Stabilizer

*A/W/F
max. length 6 m

**Perfil
estabilizador**

*A/W/F
Largo max. 6 m



DVK 2/3/4/5

**Vertical
cross-brace**

DVK 2 for 2 m grid
DVK 3 for 3 m grid
DVK 4 for 4 m grid
DVK 5 for 5 m grid

To stabilise the platform, diagonal steel tensioning cables must be fitted to the structure. These must span at least two 1000 mm grids and are supplied in accordance with structural calculations prepared for individual Double-Deck designs.

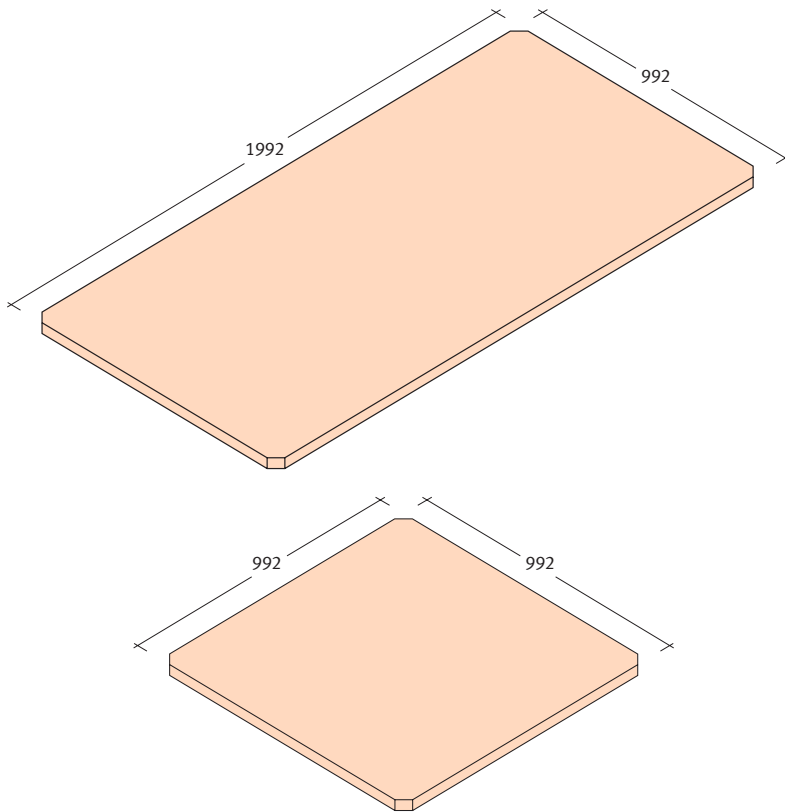
**Cruz
vertical**

DVK 2 para modulo de 2 m
DVK 3 para modulo de 3 m
DVK 4 para modulo de 4 m
DVK 5 para modulo de 5 m

Para la estabilización de la Doble Plantas se necesita cruces verticales. El emplazamiento de las uniones de cruce se fija por el especialista en cálculos estáticos. La cruz vertical se entrega con tensor y tornillos.

* When ordering please state the desired colour: A=Aluminium W=White F=Colour

* Especificquen el color: A=aluminio anodizado W=esmaltado en blanco F=esmaltado en color, segun carta RAL



Floor boards are manufactured in 22 mm plywood conforming to DIN 68705 and to suit the 1000 mm grid. They are available in two standard sizes:

DBA 2: 2000 mm x 1000 mm
DBB 1: 1000 mm x 1000 mm

others can be manufactured to meet specific requirements.

Las placas de suelo son placas contrachapadas encoladas 11 veces con un espesor de 22 mm según DIN 68705. Las placas están concebido para un modulo de 1000 mm.

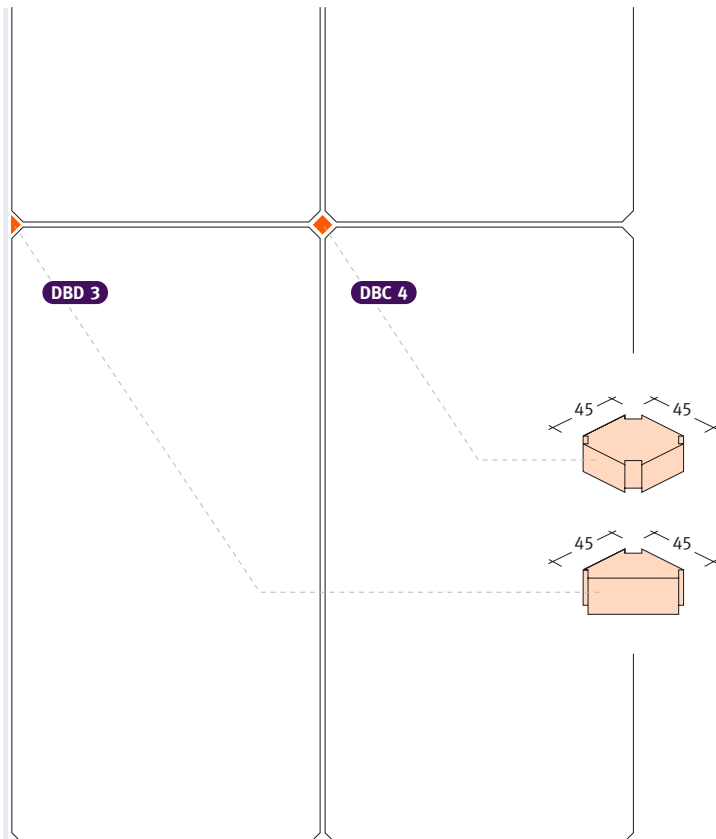
Todas las placas se ponen individualmente. No existen placas de borde o esquineras. Todos los bordes de las placas se ajustan a un marco de aluminio. En los puntos esquineros se colocan piezas de ajuste.

DBA 2

Floor board Placa de suelo
Trama de 1 x 2 m

DBB 1

Floor board Placa de suelo
Trama de 1 x 1 m



DBC 4

Square filler Pieza de ajuste
interior Cuadrado / interior

DBD 3

Triangle filler Pieza de ajuste
exterior Triángulo / exterior