

Lamello



# P-System

The time-saving joining system  
with form-locking anchoring



## P-System

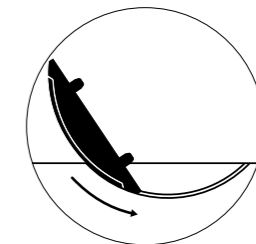


The time-saving joining system with form-locking anchoring

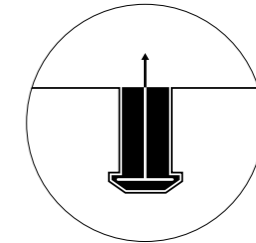
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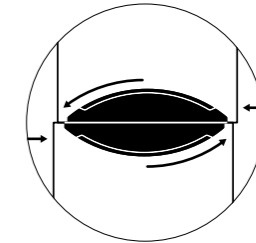
## Features



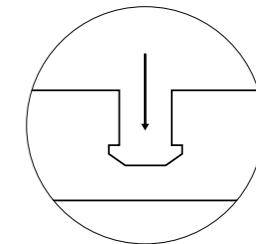
**Fast installation**  
Inserting instead of screwing or glueing



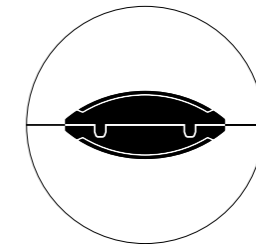
**Strong**  
Form-locking anchorage across large surface areas



**Lateral tolerance**  
Perfect, flush alignment of both workpieces



**Shallow depth**  
Minimal cutting depth with maximum tensile strength

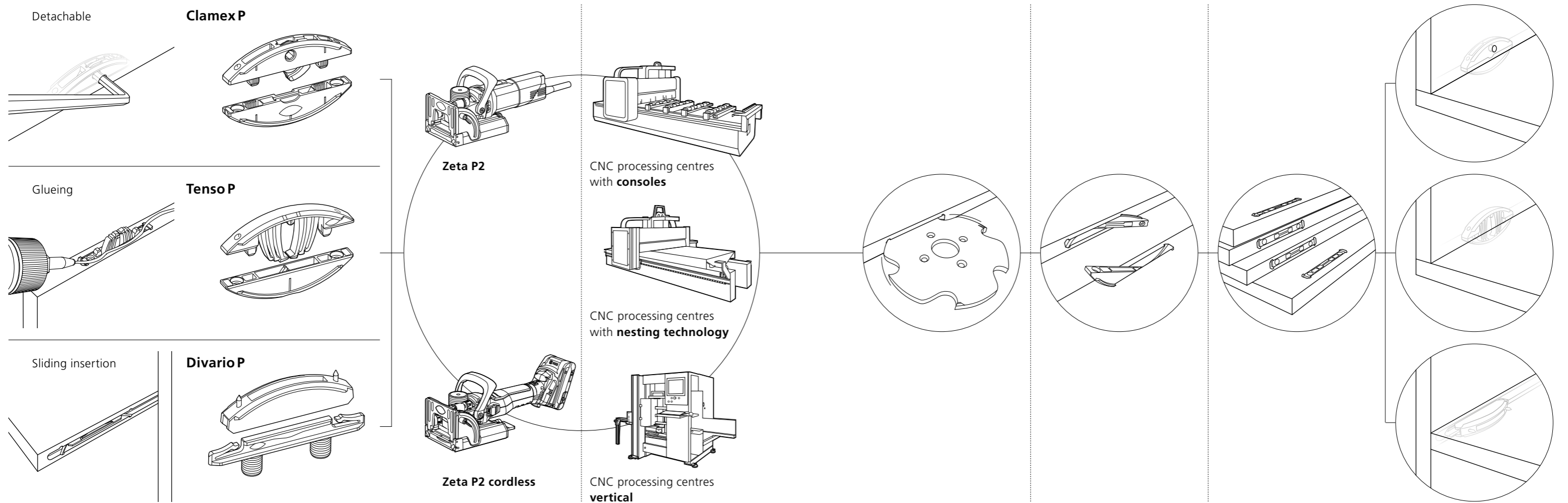


**No twisting**  
The positioning pins prevent twisting without additional dowels

# P-System

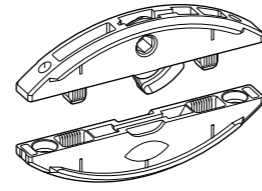
Overview

Features	Connector	Machines		Sequence			
		Power tool	CNC machines	1 Cut	2 Insert the connector	3 Deliver flat pack	4 Connect the workpieces



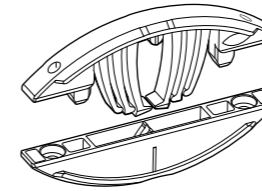
# Connectors

Features overview



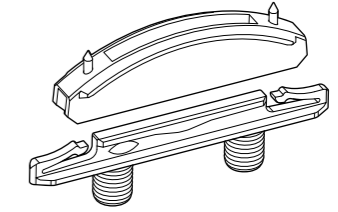
## Clamex P

Detachable furniture connector



## Tenso P

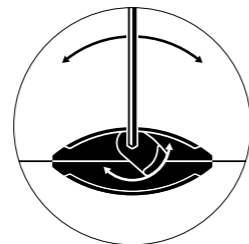
Self-clamping connector for glueing



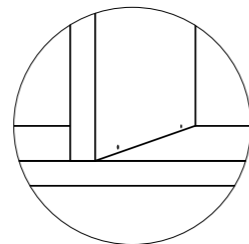
## Divario P

Self-clamping, invisible connector for slide insertion

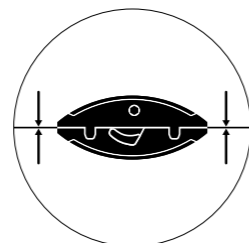
### Features



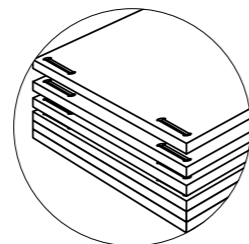
**Detachable**  
Open the connection time and time again with the rotating lever



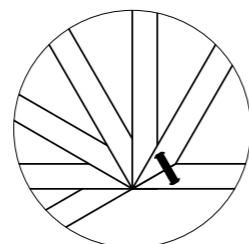
**Aesthetic**  
The small, hardly visible opening ( $\varnothing = 6 \text{ mm}$ ) serves to close and open the connector



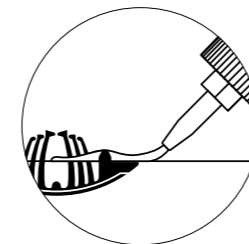
**High clamping force**  
Clamp and glue workpieces at any angle, ~ 80 kg or 170 lb



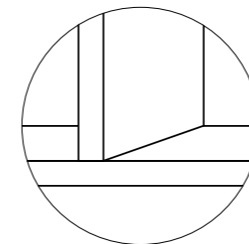
**Stackable**  
Workpieces with pre-installed P-System connectors are stackable for storage and transport



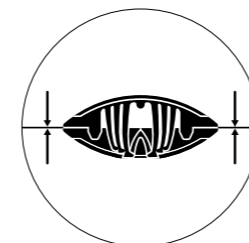
**Versatile**  
The shallow element depth allows for mitres from 22.5 – 180°, surface, corner and dividing panel connections



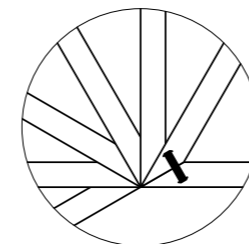
**Glueing**  
Fixed joints of two workpieces



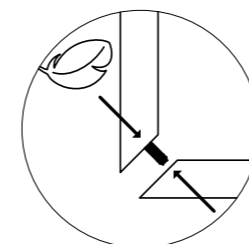
**Invisible**  
No visible connector



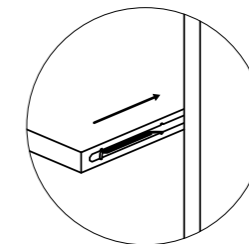
**High clamping force**  
Allows for perfect alignment and clamps the workpieces ~ 15 kg or 30 lb



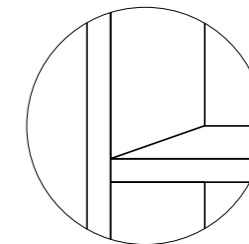
**Versatile**  
Simple glueing of mitre joints



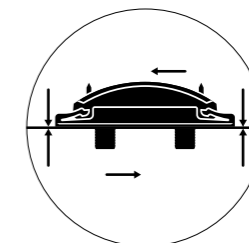
**Lower assembly force**  
In combination with the pretension clip, only a short force impulse is required to snap it into place



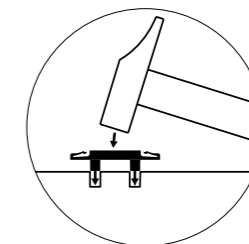
**Sliding insertion**  
Insertion between two fixed sides or shelves via a guiding groove



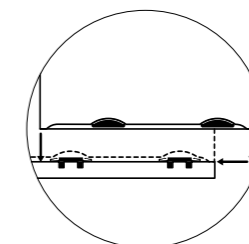
**Invisible**  
Guiding groove covers the connectors



**Clamped joint**  
No resistance while inserting until shortly before building the clamping force



**Fast installation**  
Quick installation of the connectors without glue after transport



**Assemble by sliding**  
Partially routed guiding groove for completely invisible furniture joints



*« With Tenso, simply apply glue,  
assemble the parts and you're done. »*

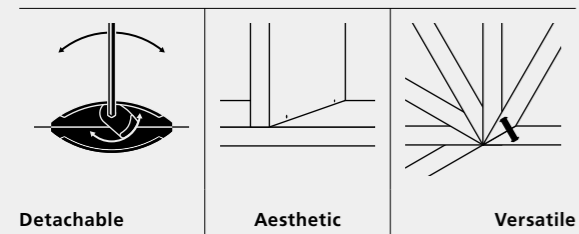
Jeffrey De Smet, self-employed carpenter, Belgium

# Clamex P-14

Detachable furniture connector



## Features



Clamex P-14 is a detachable connector and is anchored in the form-locking P-System groove within seconds.

Through the minimalist 6 mm access hole, Clamex P-14 is firmly connected and disconnected using a lever.

Clamex P-14 eliminates the need for glue, allows aesthetic joints at all angles and is ideal for permanently joined or detachable mitres. Clamex P-14 is used on mitre joints from 18 mm material thickness and in butt joints from 15 mm.

## Articles

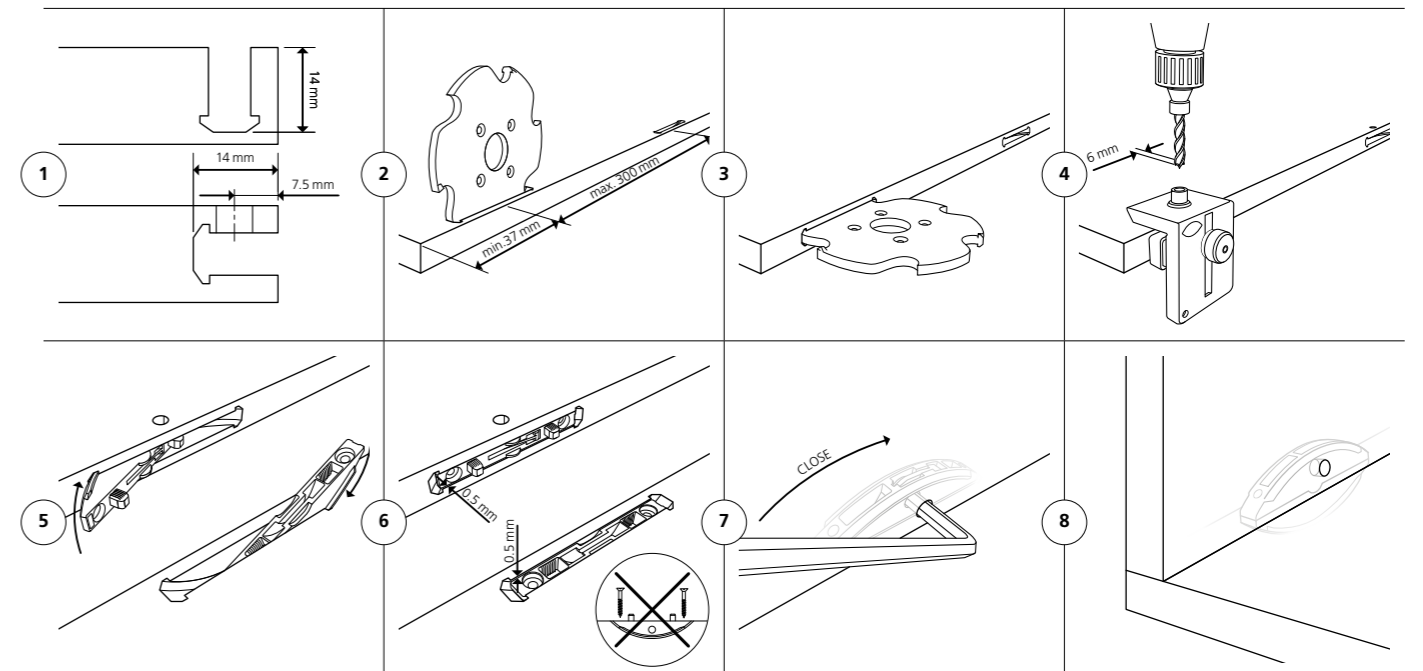


Clamex P-14	Art. No.
80 pairs	<b>145334</b>
300 pairs	<b>145346</b>
1000 pairs	<b>145356</b>
2000 pieces element with lever	<b>145338</b>
2000 pieces element without lever	<b>145339</b>

[www.lamello.com](http://www.lamello.com)  
Experience the connector live and receive comprehensive product information!

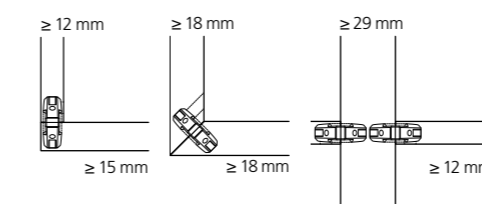


## Function



## Technical data

### Joining methods



Size	64 × 27 × 9.7 mm		
Cutter	Ø 100.4 × 7 × Ø 22 mm		
Material connector	Fiberglass reinforced plastic		
Material of lever	Zinc die cast		
Installation tolerance	Long. ± 1 mm/radial ± 1 mm		
Tensile strength (N) Up to	MDF 1210 <sup>1</sup>	Particle board 1070 <sup>1</sup>	Beech 1870 <sup>1</sup>
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See **PAGE 62** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 66-67**

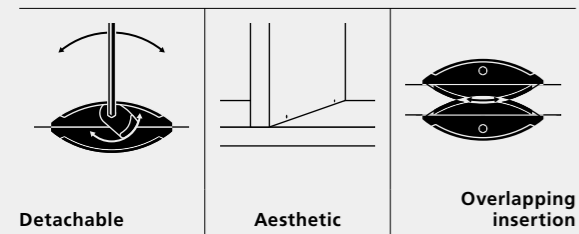
<sup>1</sup> See comment on load limits on **PAGE 71**

# Clamex P-14/10 Medius

Detachable connector for centre panels for materials from 16 mm thickness



## Features



Clamex P-14/10 Medius is a detachable connector and is anchored in the form-locking P-System groove within seconds.

Through the minimalist 6 mm access hole, Clamex P-14/10 Medius is firmly connected and disconnected using a lever.

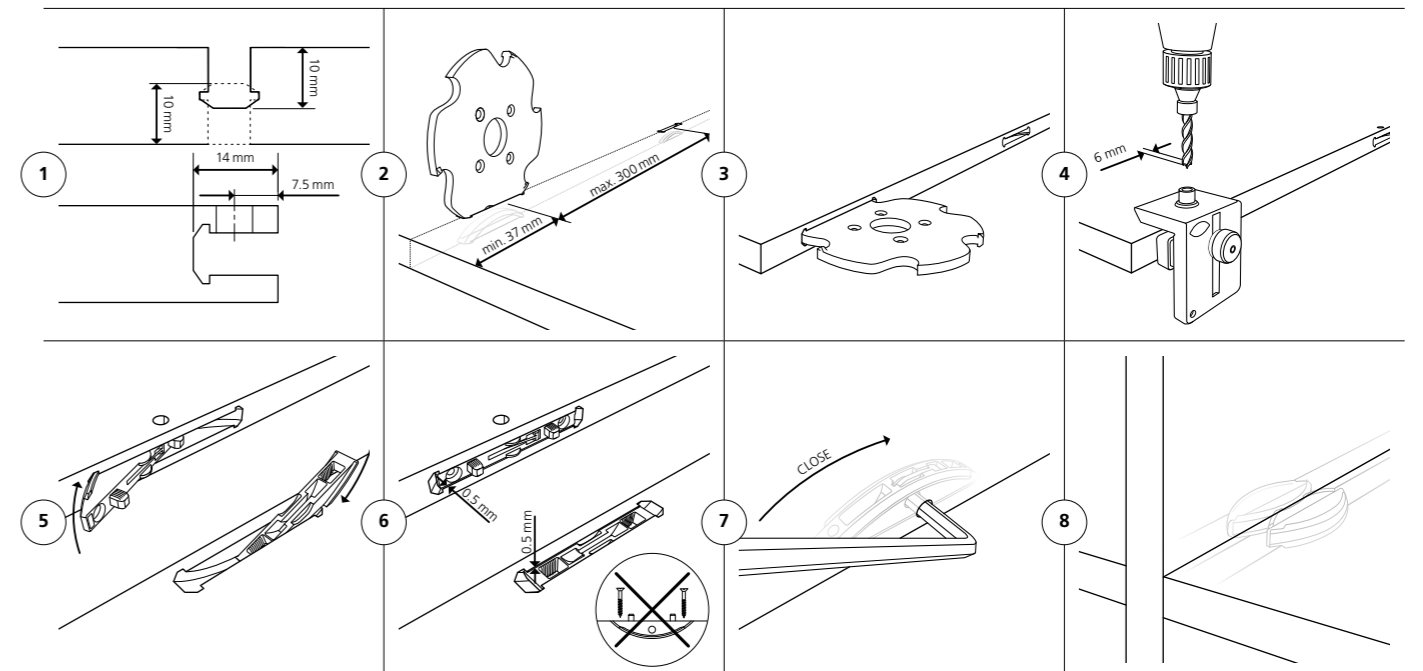
The connector for divisions has two installation depths and is used when two shelves are attached to the same dividing panel at the same height. Due to the reduced installation depth of 10 mm, the minimal thickness for the division is 16 mm.

## Articles



Clamex P-14/10 Medius	Art. No.
80 pairs	<b>145370</b>
300 pairs	<b>145371</b>
1000 pairs	<b>145357</b>
2000 pieces element with lever	<b>145338</b>
2000 pieces element without lever	<b>145369</b>

## Function



## Technical data

Joining methods	Size	Tensile strength (N)		
	64 x 13.5 x 9.7 mm 52 x 7.5 x 9.7 mm	MDF	Particle board	Beech
	Cutter	Up to		
	Material connector	810 <sup>1</sup> 620 <sup>1</sup> 1100 <sup>1</sup>		
	Material of lever	Zinc die cast		
	Installation tolerance	Long. ± 1 mm/radial ± 1 mm		
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See PAGE 62 for technical specifications | 90° and 45° cover caps are available in a variety of colours PAGE 66-67

<sup>1</sup> See comment on load limits on PAGE 71

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!

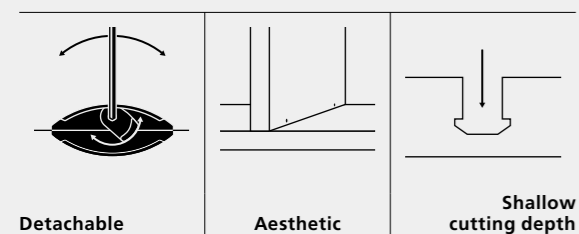


# Clamex P-10

Detachable connector for materials from 12 mm thickness



## Features



Clamex P-10 is a detachable connector and is anchored in the form-locking P-System groove within seconds.

Through the minimalist 6 mm access hole, Clamex P-10 is firmly connected and disconnected using a lever.

Clamex P-10 eliminates the need for glue, allows aesthetic joints at all angles and is ideal for permanently joined or detachable mitres.

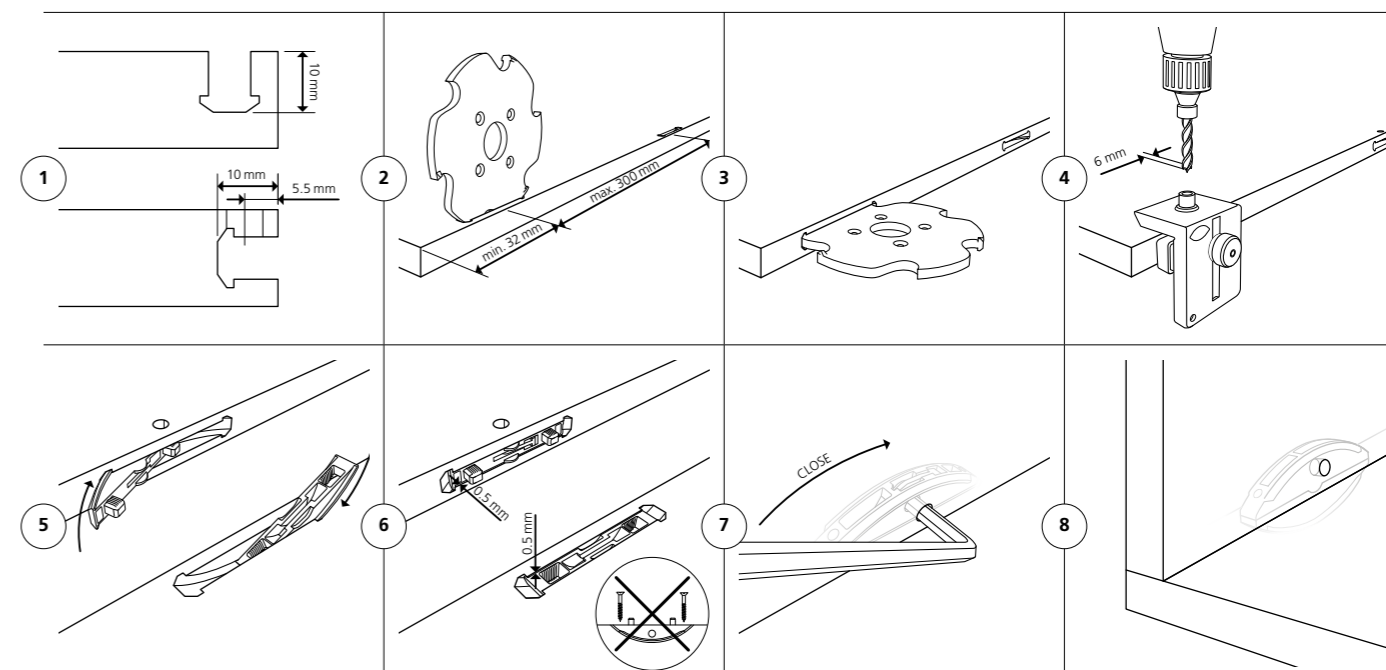
Clamex P-10 is used on mitre joints from 15 mm material thickness and in butt joints from 12 mm.

## Articles



Clamex P-10	Art. No.
80 pairs	<b>145372</b>
300 pairs	<b>145373</b>
1000 pairs	<b>145374</b>
2000 pieces element without lever	<b>145358</b>

## Function



## Technical data

Joining methods	Size	52 x 19 x 9.7 mm		
≥ 12 mm	Cutter	Ø 100.4 x 7 x Ø 22 mm		
≥ 15 mm	Material connector	Fiberglass reinforced plastic		
≥ 19 mm	Material of lever	Zinc die cast		
≥ 12 mm	Installation tolerance	Long. ± 0.5 mm/radial ± 0.5 mm		
	Tensile strength (N)	MDF	Particle board	Beech
	Up to	700 <sup>1</sup>	540 <sup>1</sup>	900 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!



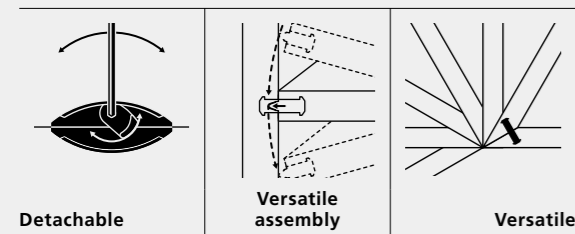


# Clamex P-14/10 Flexus

Detachable furniture connector with flexible positioning pins



## Features



Clamex P-14/10 Flexus is a detachable connector and is anchored in the form-locking P-System groove within seconds.

Through the minimalist 6 mm access hole, Clamex P-14/10 Flexus is firmly connected and disconnected using a lever.

The flexible positioning pins allow work pieces to be installed in an already assembled cabinet, simplifying the assembly sequence.

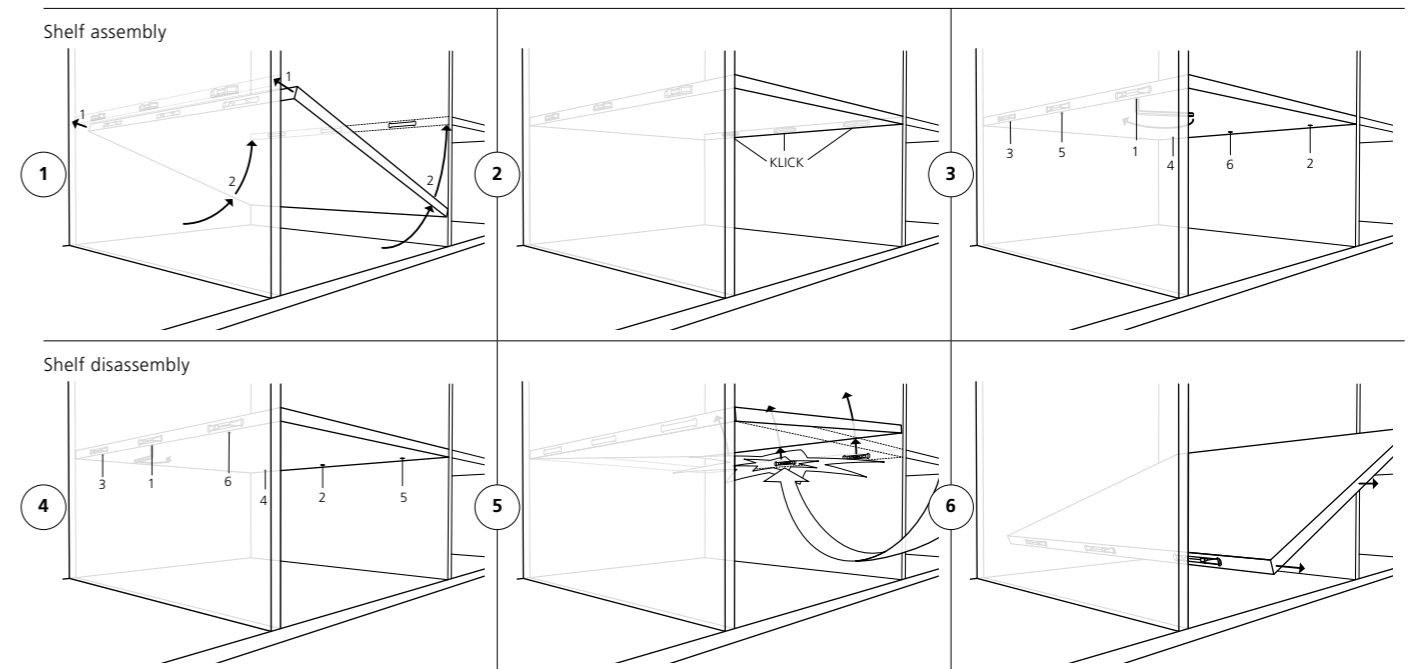
Clamex P-14 is used in mitre joints from 18 mm material thickness and in butt joints from 12 mm.

## Articles



Clamex P-14/10 Flexus	Art. No.
80 pairs	<b>145315</b>
300 pairs	<b>145316</b>
1000 pairs	<b>145317</b>
2000 pieces element with lever	<b>145318</b>
2000 pieces element without lever	<b>145369</b>

## Function



## Technical data

Joining methods	Size	64 × 13.5 × 9.7 mm 52 × 7.5 × 9.7 mm
≥ 12 mm	Cutter	Ø 100.4 × 7 × Ø 22 mm
≥ 18 mm	Material connector	Fiberglass reinforced plastic
≥ 16 mm	Material of lever	Zinc die cast
≥ 11 mm	Installation tolerance	Long. ± 0 mm/radial ± 1 mm
≥ 18 mm	Tensile strength (N)	MDF 790 <sup>1</sup> Particle board 710 <sup>1</sup> Beech 1190 <sup>1</sup>
≥ 12 mm	Material range	Particle board, MDF, plywood, softwood, hardwood etc.

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!

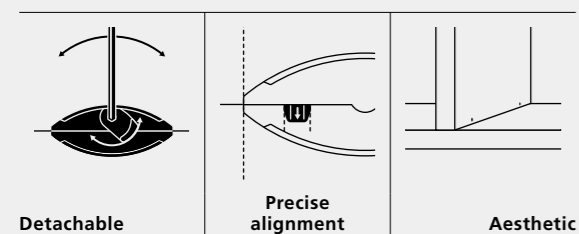


# Clamex P-14 CNC

Detachable furniture connector with precise alignment



## Features



Clamex P-14 CNC is a detachable connector and is anchored in the form-locking P-System groove within seconds. Through the minimalist 5 mm access hole, Clamex P-14 is firmly connected and disconnected using a lever.

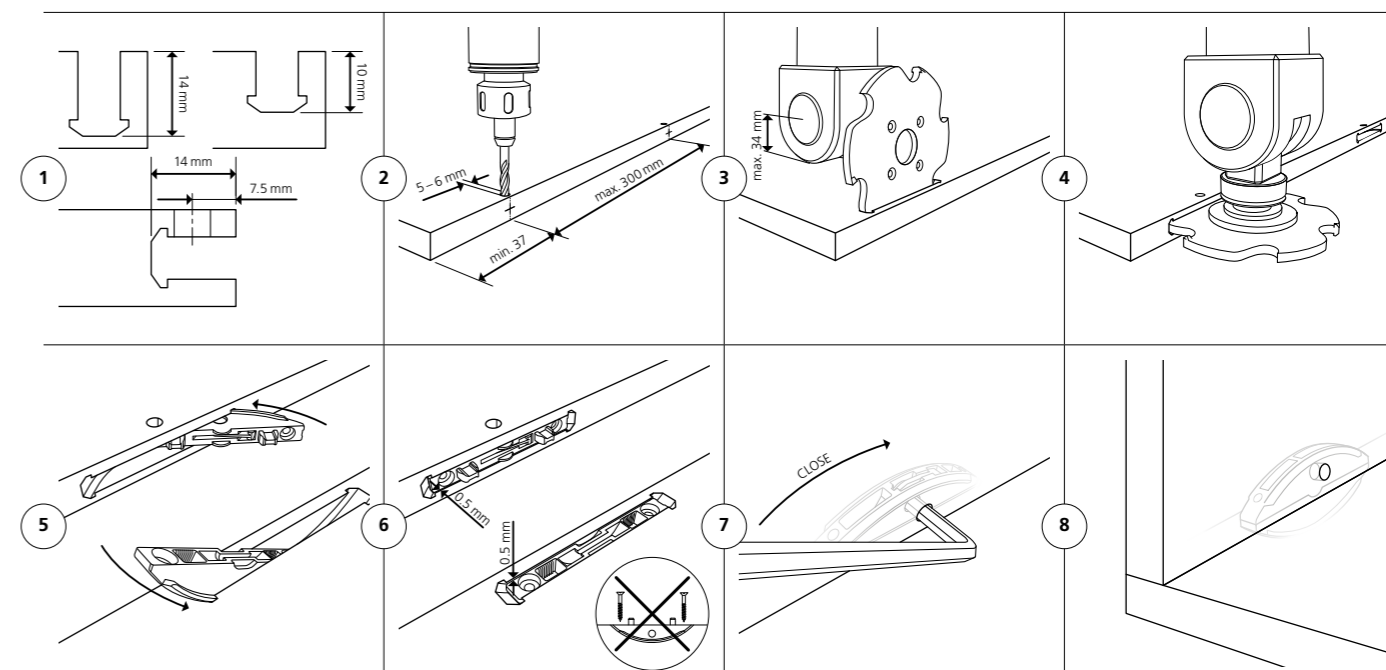
Clamex P-14 CNC is ideal for production on CNC machines and, unlike Clamex P-14, is automatically aligned during assembly.

Clamex P-14 CNC is used in mitre joints from 18 mm material thickness and in butt joints from 12 mm.

## Articles

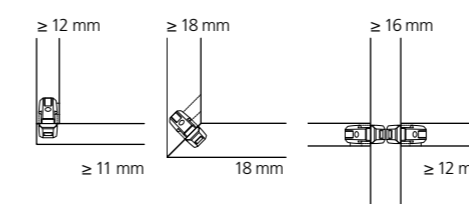


## Function



## Technical data

### Joining methods



Size	64 × 13.5 × 9.7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Fiberglass reinforced plastic
Material of lever	Zinc die cast
Installation tolerance	Long. ± 0 mm/radial ± 1 mm
Tensile strength (N)	Depending on the connector combination
Material range	Particle board, MDF, plywood, softwood, hardwood etc.
Up to	

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!



# Application examples

Clamex P

**Furniture manufacturing/Interior fitting:** Sideboards, shelves, wardrobes, trade show exhibits (display cases), kitchen furniture, TV furniture etc.

**Shop fitting/Kitchen manufacturing:** Wall elements, furniture, trade show exhibits (display cases), trade show exhibits, changing rooms, stools etc.

Clamex P-14/10  
Flexus



Clamex P-14 CNC



Clamex P-10



Clamex P-14/10  
Medius

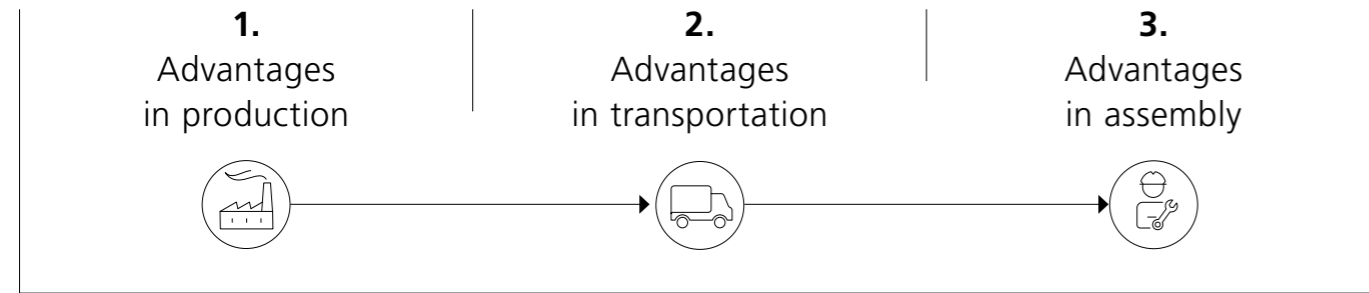


Clamex P-14



# Advantages of the Clamex P

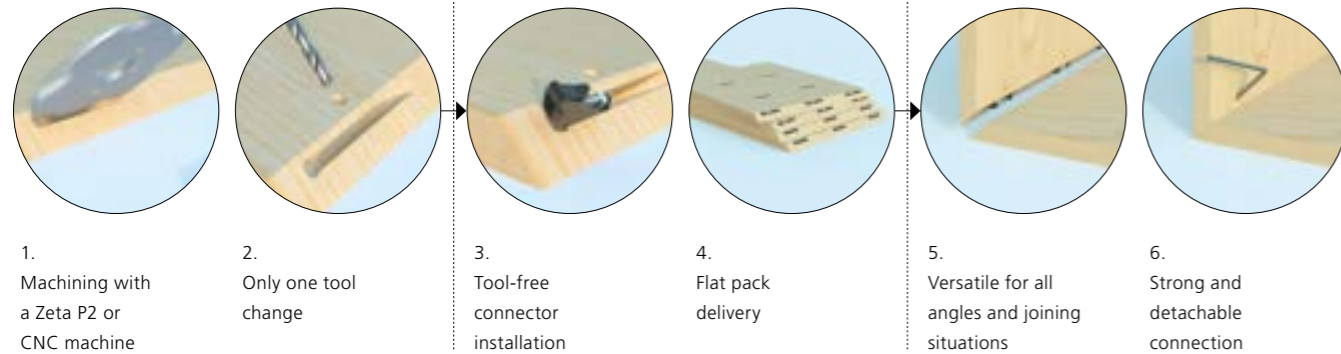
Detachable furniture connector



- Machining possible with Zeta P2 or CNC machinery
- Only one tool change from P-System cutter to 6 mm drill
- Same groove everywhere: whether corner connection, shelf, centre panel or mitres
- Consistently competent partners: from CAD to CAM and CNC

- Tool-free connector installation
- Workpieces with pre-installed P-System connectors are stackable for storage and transport
- No extra bags or loose hardware required with furniture shipment
- Tool-free connector disassembly for surface treatment

- Simple positioning of workpieces thanks to positioning pins
- Easy assembly with an Allen key
- Aesthetically small, barely visible hole (Ø = 6 mm)
- Open the connection time and time again with the rotating lever
- Lateral tolerance perfect, flush alignment of both workpieces



*« The P-System saves us an enormous amount of time in production. Our fitters are big fans of Clamex and now they don't want to work with anything else. »*

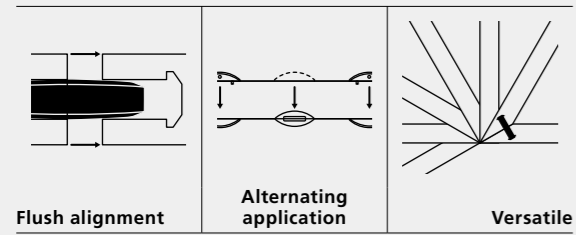
Markus Fust, Managing Director,  
Fust Schreinerei AG, Wil, Switzerland



# Bisco P

Aligning element, suitable for the P-System groove

## Features



Bisco P is a plastic biscuit which fits into the 7 mm P-System groove and is held in the groove due to its surface structure. Bisco P is used in combination with Clamex or Tenso as a cost-effective alignment element and ensures flushness of the joint. The Bisco can also be used as a dry joint as a test before the work piece is permanently joined with Tenso P and adhesive.

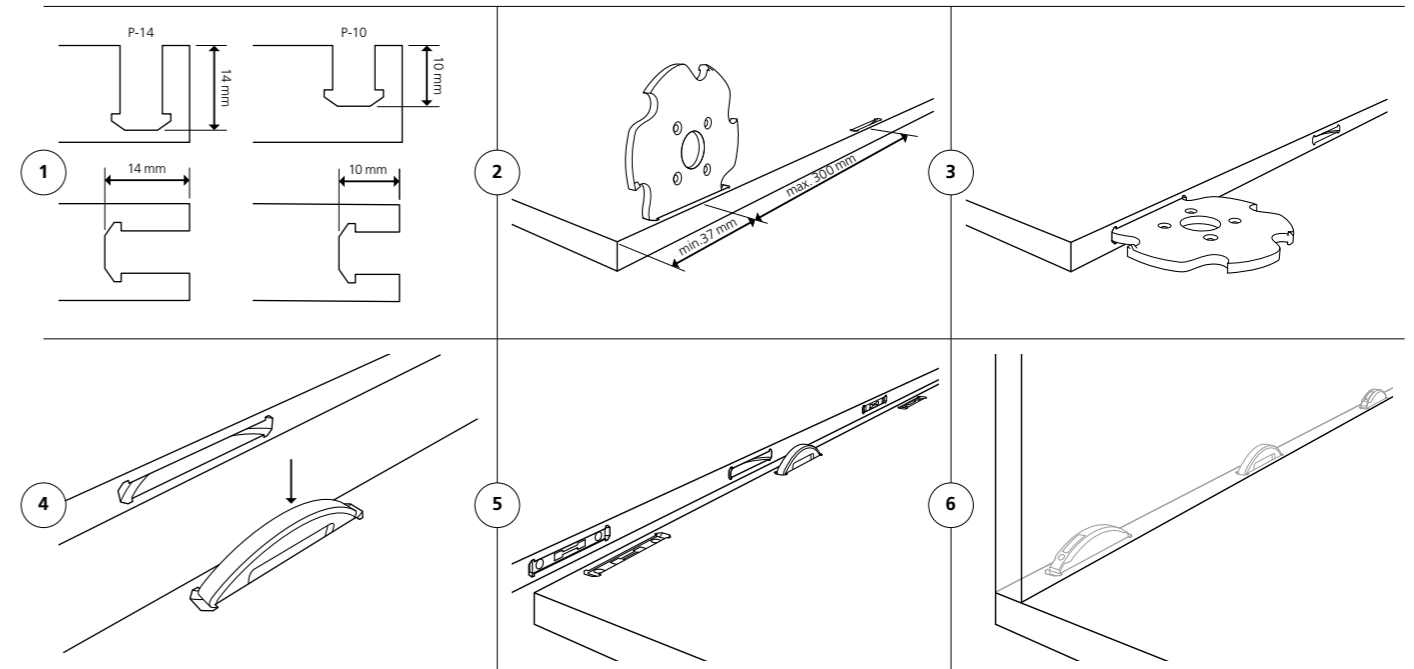
Bisco P-14 is used in combination with Clamex P-14 or Tenso P-14; and Bisco P-10 with the same connectors in size P-10.

## Articles

<b>Bisco P-14</b>	Art. No.
80 pieces	<b>145301</b>
300 pieces	<b>145302</b>
1000 pieces	<b>145303</b>

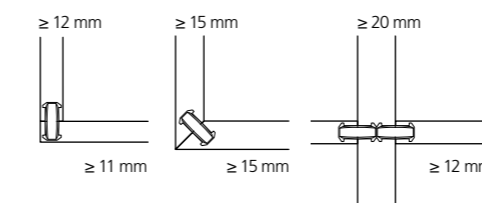
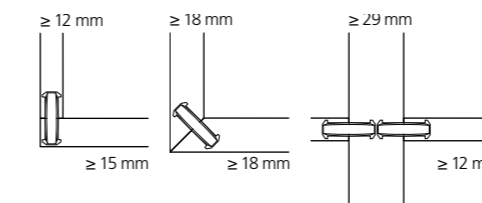
<b>Bisco P-10</b>	Art. No.
80 pieces	<b>145304</b>
300 pieces	<b>145305</b>

## Function



## Technical data

### Joining methods



### Bisco P-14

Size	65 × 27 × 7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 2 mm
Tensile strength (N)	Depending on the connector combination

### Bisco P-10

Size	52 × 19 × 7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 2 mm
Tensile strength (N)	Depending on the connector combination
Material range	Particle board, MDF, plywood, softwood, hardwood etc.

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!

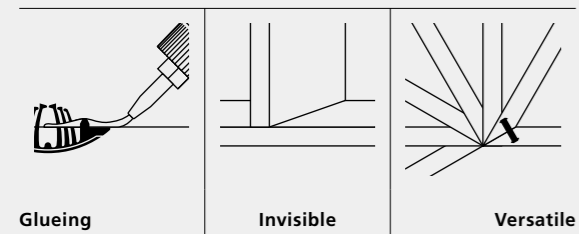


# Tenso P-14

Self-clamping connector for glueing materials from 16 mm thickness



## Features



Tenso P-14 is a self-clamping glueing aid and is anchored in the form-locking P-System groove within seconds.

The high clamping force of Tenso leads to perfectly clamped joints without the need for clamps or presses, regardless of the angle of the work pieces.

Aesthetic joining is possible without visible connectors, with short assembly times and without the need to wait for the glue to dry. Tenso P-14 is used on mitre joints from 18 mm material thickness and in butt joints from 15 mm.

## Articles



Tenso P-14	Art. No.
80 pairs	<b>145415</b>
80 pairs, with preload clip	<b>145415S</b>
300 pairs	<b>145425</b>
300 pairs, with preload clip	<b>145425S</b>
1000 pairs	<b>145435</b>
2000 pieces element with spring	<b>145440</b>
2000 pieces element without spring	<b>145441</b>

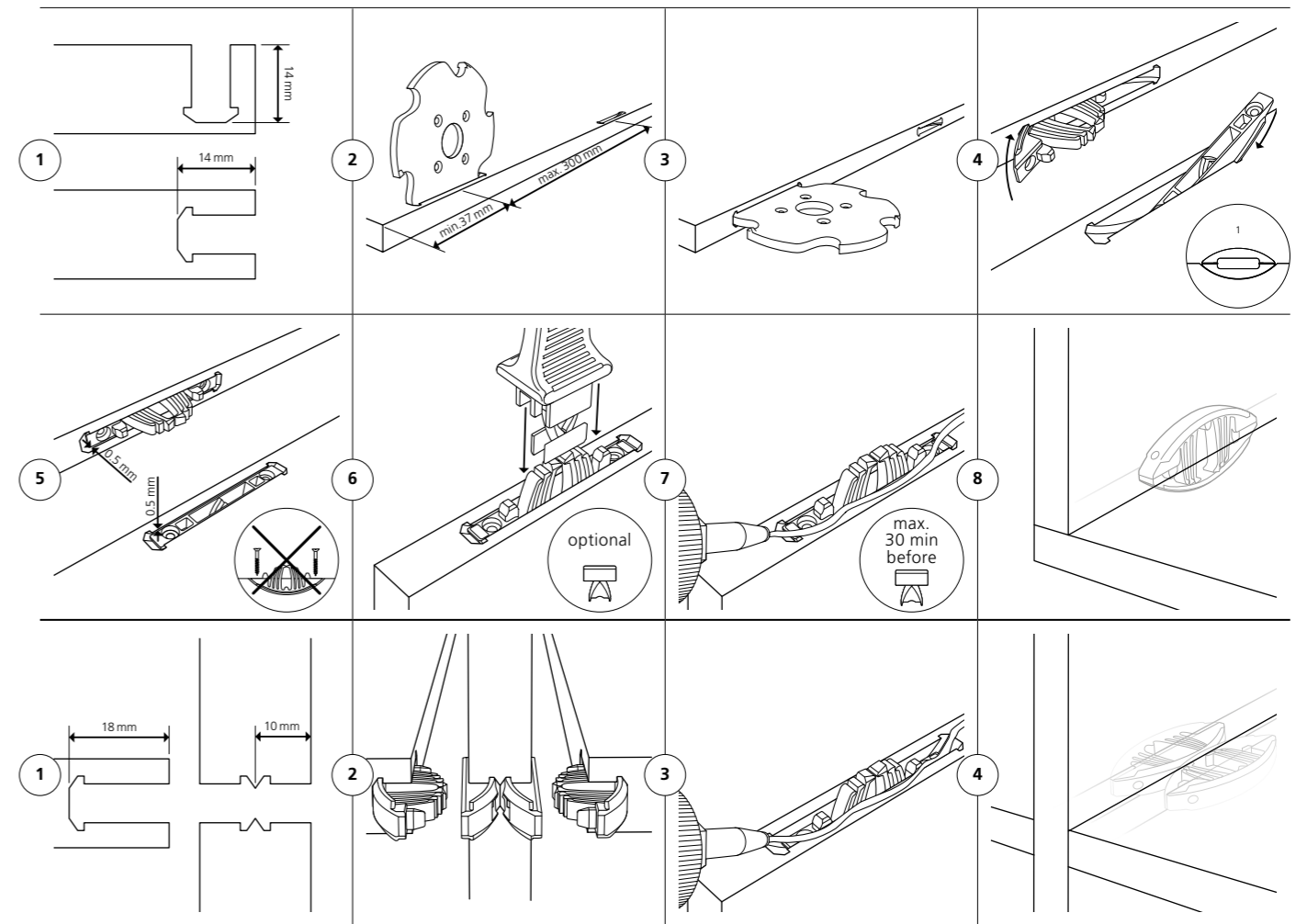


Tenso P-14 preload clip	Art. No.
300 pieces	<b>145426</b>
1000 pieces	<b>145436</b>

[www.lamello.com](http://www.lamello.com)  
Experience the connector live and receive comprehensive product information!

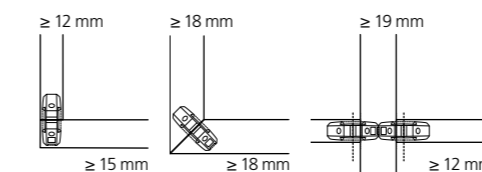


## Function



## Technical data

### Joining methods



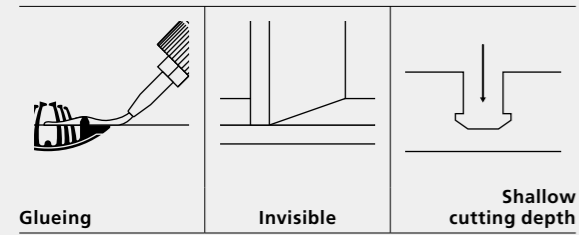
Size	66 × 27 × 9.7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Fiberglass reinforced plastic
Installation tolerance	Long. ± 1 mm/radial ± 1 mm
Tensile strength (N)	Depending on the adhesive
Material range	Particle board, MDF, plywood, softwood, hardwood etc.

# Tenso P-10

Self-clamping connector for glueing thin materials from 12 mm thickness



## Features



Tenso P-10 is a self-clamping connector to glue and is anchored in the form-locking P-System groove within seconds.

The high clamping force of Tenso leads to perfectly clamped joints without clamps or presses, regardless of the angle of the work pieces.

Aesthetic joining is possible without visible connectors, with short assembly times and without having to wait or the glue to dry. Tenso P-10 is used on mitre joints from 15 mm material thickness and in butt joints from 12 mm.

## Articles

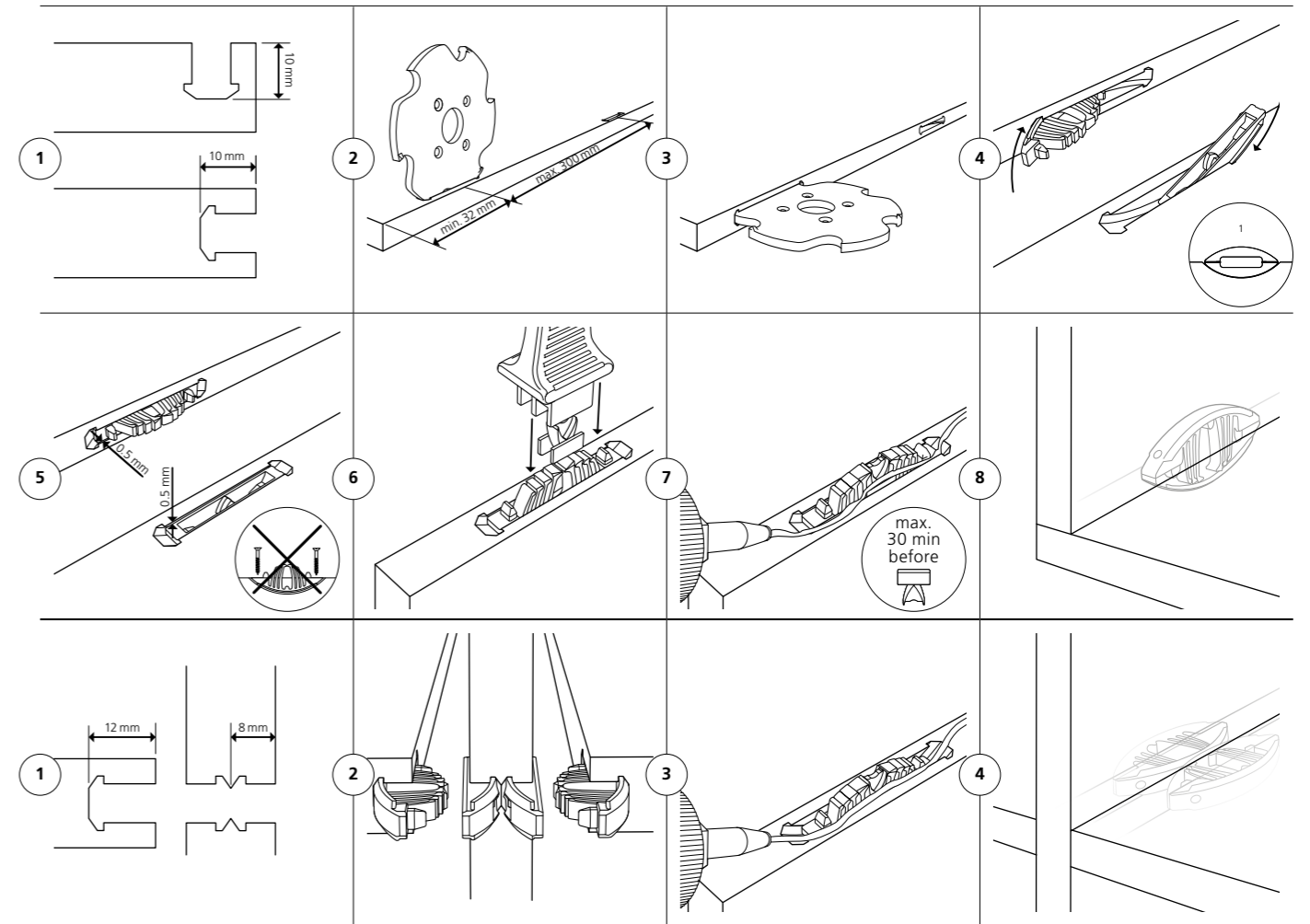


Tenso P-10	Art. No.
80 pairs, with preload clip	<b>145418</b>
300 pairs, with preload clip	<b>145428</b>
1000 pairs, with preload clip	<b>145438</b>
2000 pieces element with spring	<b>145442</b>
2000 Pieces element without spring	<b>145443</b>



Tenso P-10 preload clip	Art. No.
2000 pieces	<b>145445</b>

## Function



## Technical data

Joining methods	Size	52 x 19 x 9.7 mm
	Cutter	Ø 100.4 x 7 x Ø 22 mm
	Material connector	Fiberglass reinforced plastic
	Installation tolerance	Long. ± 1 mm/radial ± 1 mm
	Tensile strength (N)	Depending on the adhesive
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!



# Application examples

Tenso P

**Furniture manufacturing/Interior fitting:** Furniture, shelves, stools, sideboards, wardrobes, wall panels, cladding, decorative strips, covering panels, plinths, face frames etc.

**Shop fitting/Kitchen manufacturing:** Furniture, shelves, stools, sideboards, wardrobes, show cases, sales counters, wall panels, cladding etc.

Tenso P-14



Tenso P-14



Tenso P-10

Tenso P-14



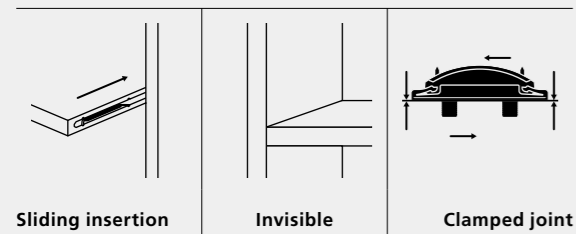


# Divario P-18

Self-clamping, invisible connector for slide insertion



## Features



Divario P-18 is a detachable connector for slide-in insertion and is anchored in the form-locking P-System groove within seconds.

The connector is used to slide shelves or partitions into an already assembled cabinet. In the process, the Divario P-18 clamps the workpieces together firmly and ensures perfectly closed joints without visible connectors.

Divario P-18 is used for joining shelves to divisions from 18 mm panel thickness or in butt joints from 12 mm.

## Articles

	
<b>Divario P-18</b>	Art. No.
80 pairs	<b>145550</b>
300 pairs	<b>145560</b>
1000 pairs	<b>145570</b>
2000 pieces, element for P-System groove	<b>145520</b>
2000 pieces, element for drill holes	<b>145540</b>



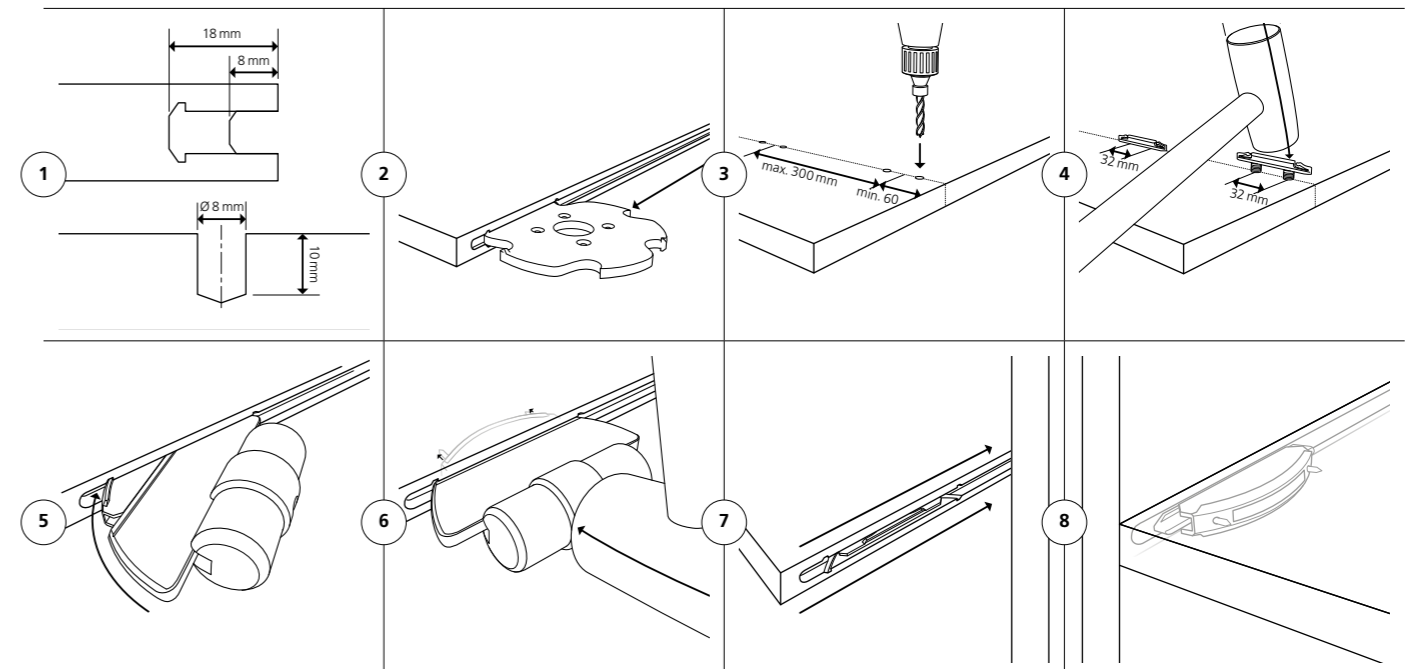
<b>Divario P-18 Installation tool</b>	Art. No.
For fixing the Divario in the workpiece	<b>125500</b>

[www.lamello.com](http://www.lamello.com)

Experience the connector live and receive comprehensive product information!



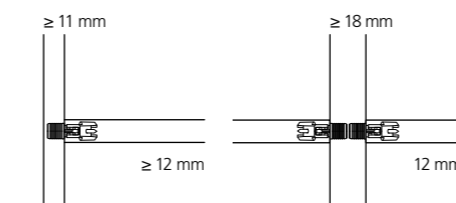
## Function



## Technical data

### Joining methods

Element with P-System groove	58 × 16 × 9.7 mm
Element with drill holes	72 × 17 × 8 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Fiberglass reinforced plastic
Installation tolerance	Long. ± 1 mm/radial ± 0 mm
Load limits per connector (N)	19 mm
Up to	MDF 740 <sup>1</sup> Particle board 590 <sup>1</sup> Beech 1820 <sup>1</sup>
Tensile strength (N)	All materials 600 <sup>1</sup>
Material range	Particle board, MDF, plywood, softwood, hardwood etc.



See PAGE 65 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 71

# Application examples

Divario P-18

**Furniture manufacturing/Interior fitting:** Furniture, shelves, open room dividers, wine racks, sideboards, wardrobes, separating walls, showcases, hanging elements etc.



Divario P-18



# High performance without cable

LiHD battery pack

Ludwig Bauer, Teamleader Product Management

«With the lightweight, powerful 18 V LiHD 4.0 Ah battery pack, the Zeta P2 cordless is ideally equipped to cut longitudinal grooves for the Divario P-18 – even in solid wood.»



**Powerful!**  
Battery alliance with over 30 brands

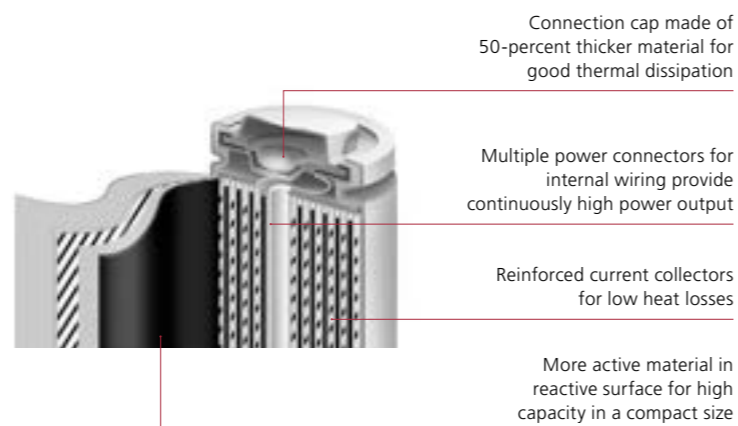
[www.cordless-alliance-system.com](http://www.cordless-alliance-system.com)



## LiHD: The world's most powerful battery system in the industry

A unique interplay of:

- Intelligent battery management for long-lasting high capacity
- Patented AIR-COOLED system for short charging times with hot batteries
- High-quality cell structure with 50-percent reduced internal resistance ensures full Zeta power even with a small battery pack



## Powerful 18 V LiHD battery pack either as 4.0 Ah or 5.5 Ah

### 18 V LiHD 4.0 Ah

- Included as standard battery in the set
- Compact, lightweight and powerful
- Suitable for all applications



### 18 V LiHD 5.5 Ah

- Available as an option for even longer working periods



# More flexible in the workshop

The ready-to-hand battery-powered biscuit joiner ensures greater efficiency and flexibility in the workshop.

- No tangling of the cable or the suction hose when machining large workpieces
- Cutting directly on the workpiece reduces the handling of bulky parts. There is also no need to disconnect and plug in the cable

- Quick production of furniture with different angles without complicated programming on the CNC
- Create prototypes without time-consuming machine setup. Unrestricted design freedom thanks to the wide variety of joining elements

- The cordless power tool can be used to easily adapt or add grooves in no time
- Corner connections are quickly and precisely cut directly at the work bench

## Large workpieces



## Fitted panels



- Easily and flexibly cut grooves in fitted panels on site, even if the furniture has been completely machined on the CNC
- Additional grooves on the longitudinal joint for fillers or pillar cladding are created extremely efficiently after fitting

## Exclusive individual pieces



## Roof window casing



- For renovation work, the grooves are only cut directly on site after fitting
- Cable-free work facilitates handling overhead and in hard-to-reach niches

## Adapting furniture



## Terrace floors



- Join components outdoors without access to a power connection
- No walkways between the processing site and the installation site, and no additional handling of the cable reel

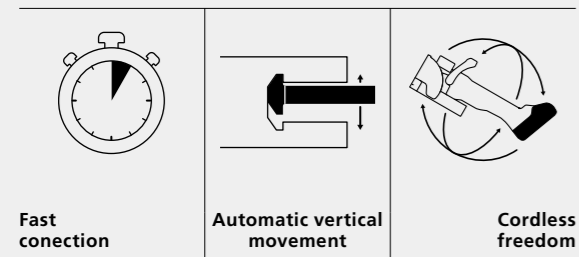


# Zeta P2 cordless

The powerful P-System biscuit joiner for cordless freedom



## Features



The Zeta P2 cordless is the battery-powered biscuit joiner for even faster joining, suitable for use with P-System connectors. It is used to create the form-locking P-System groove within seconds, and is even more flexible to use due to its cordless freedom. The integrated vertical mechanical drive is automatically triggered at the maximum cutting depth and performs a lateral cutter movement for the P-System groove. Connectors with various functions and different sizes can now be inserted into the form-locking P-System groove without the need for any tools.

## Articles



### Zeta P2 cordless biscuit joiner, DP (diamond) Art. No.

In systainer, incl. 2 batteries and charger, **101801DESD**  
plug type C Euro

In systainer, without batteries, without charger **101800DESD**

In systainer, incl. 2 batteries and charger, **101801GBSD**  
plug type G

In systainer, without batteries, without charger **101800GBSD**

*For other plug versions please contact your local Lamello specialist*



### Kit contains

Zeta P2 cordless biscuit joiner, DP, 2 x battery pack 18 V, LiHD 4.0 Ah\*, battery charger ASC 55\*, P-System drill jig incl. drill, suction stub 36 mm, spacer 2 and 4 mm, dust bag, tool set, stop square

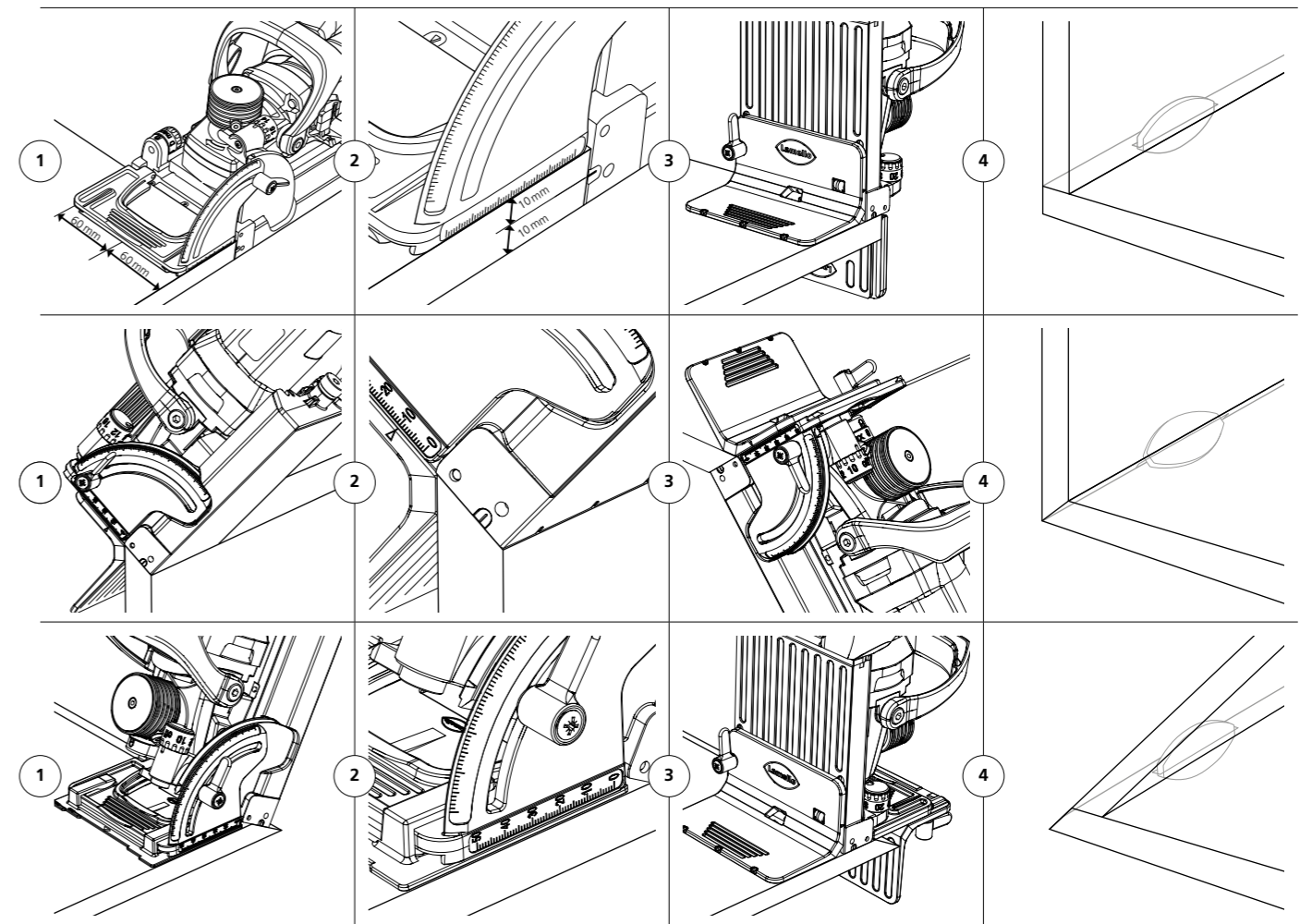
*\* Only included in art. No. 101801DESD/101801GBSD*

[www.lamello.com](http://www.lamello.com)

Experience Zeta P2 cordless live and receive comprehensive product information!



## Function



## Technical data

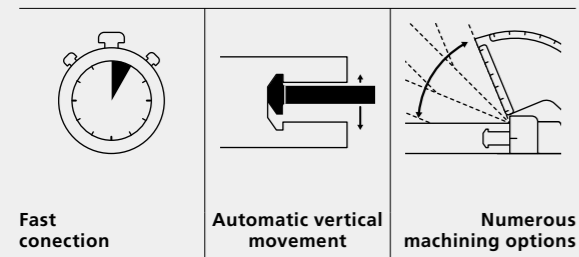
Battery voltage	18 V	Groove width	7/10 mm
Speed	9000 min <sup>-1</sup>	Groove depth max.	20 mm
P-System Cutter	Ø 100.4 x 7 x 22 mm	Weight	3.7 kg incl. battery

# Zeta P2

The machine for the evolving P-System, saving you time daily! Differentiate your products from the standard!



## Features



The Zeta P2 is the biscuit joiner for P-System connectors and is used to create the form-locking P-System groove within seconds.

The integrated vertical mechanical drive is automatically triggered at the maximum cutting depth and performs a lateral cutter movement for the P-System groove. Connectors with various functions and different sizes can now be inserted into the form-locking P-System groove. The insertion into the groove is quick and without tools.

## Articles



### Zeta P2 with P-System

#### groove cutter HW (carbide)

Art. No.

In systainer<sup>3</sup> M, plug type F Schuko **101403DES**

In systainer<sup>3</sup> M, plug type G **101403GBS**

In systainer<sup>3</sup> M, plug type C Euro **101403CHS**

### Zeta P2 with P-System

#### groove cutter DP (diamond)

Art. No.

In systainer<sup>3</sup> M, plug type F Schuko **101403DESD**

In systainer<sup>3</sup> M, plug type G **101403GBSD**

In systainer<sup>3</sup> M, plug type C Euro **101403CHSD**

*For other plug versions please contact your local Lamello specialist*



### Kit contains

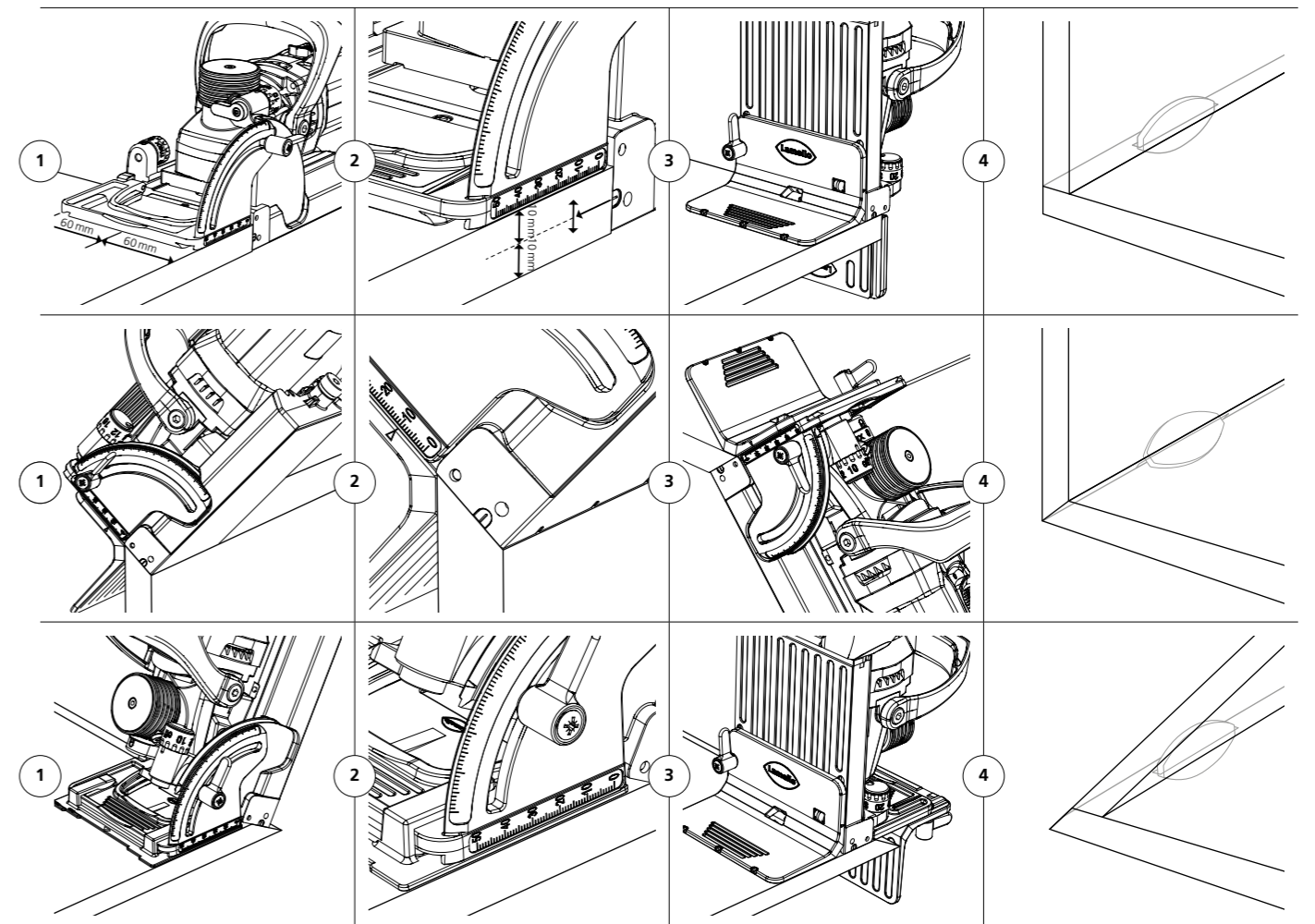
Zeta P2, P-System groove cutter, stop square, suction stub 36 mm, disc for angles, spacer 2 and 4 mm, tools, Clamex P drill jig incl. drill

[www.lamello.com](http://www.lamello.com)

Experience Zeta P2 live and receive comprehensive product information!



## Function



## Technical data

Power/Voltage	1 050 W/230 V 800 W/120 V	Teeth	Z3
Speed	9 000 min <sup>-1</sup>	Cutting depth max.	20 mm
P-System Cutter	HW: Ø 100.9 × 7 × Ø 22 mm DP: Ø 100.4 × 7 × Ø 22 mm	Weight	3.7 kg

# Accessories

Zeta P2 cordless and Zeta P2

## Accessories



**Stop square for Zeta P2, Top 21, Classic X** Art. No. **251044**  
For stabilising the biscuit joiner in the vertical position, ideal for obtuse mitre joints



**Spacer for Zeta P2, Top 21, Classic X** Art. No. **253027**  
5 mm, aluminium for 18 mm panels  
**253023**  
2 mm, plastic for 16 mm panels  
**253026**  
4 mm, plastic for mitres



**P-System groove cutter DP (diamond),** Art. No. **132140**  
**Ø 100.4 × 7 × Ø 22 mm**  
Z3, 4 NL for Zeta P2



**P-System groove cutter HW (carbide),** Art. No. **132141**  
**Ø 100.9 × 7 × Ø 22 mm**  
Z3, 4 NL for Zeta P2



**Groove cutter HW (carbide),** Art. No. **132000**  
**Ø 100 × 4 × Ø 22 mm**  
Z2 + V4 scoring teeth, 4 screw holes, hub  
for Zeta P2/Top 21/Classic X



**Dust bag** Art. No. **257532**  
For Zeta P2/Top 21/Classic X

## Batteries



**Batteries** Art. No. **313013**  
Battery pack 18 V, LiHD 4.0 Ah  
**313015**  
Battery pack 18 V, LiHD 5.5 Ah  
**123100DE**  
Battery charger ASC 55, plug type C Euro  
**123100GB**  
Battery charger ASC 55, plug type G

# Connected in seconds ...

Without waiting time, clamps, or secondary processes,  
glued and clamped in 40 seconds

## Advantage

... with Clamex P – detachable



1 Cut



2 Drill



3 Insert



4 Connect – finished!

**Time for one connector pair**

1. Cut	25
2. Drill	15
3. Insert	5
4. Connect – finished!	5

**Ready in 50 s**

... with Tenso P – glued



1 Cut



2 Insert



3 Apply glue



4 Connect – finished!

**Time for one connector pair**

1. Cut	25
2. Insert	5
3. Apply glue	5
4. Connect – finished!	5

**Ready in 40 s**

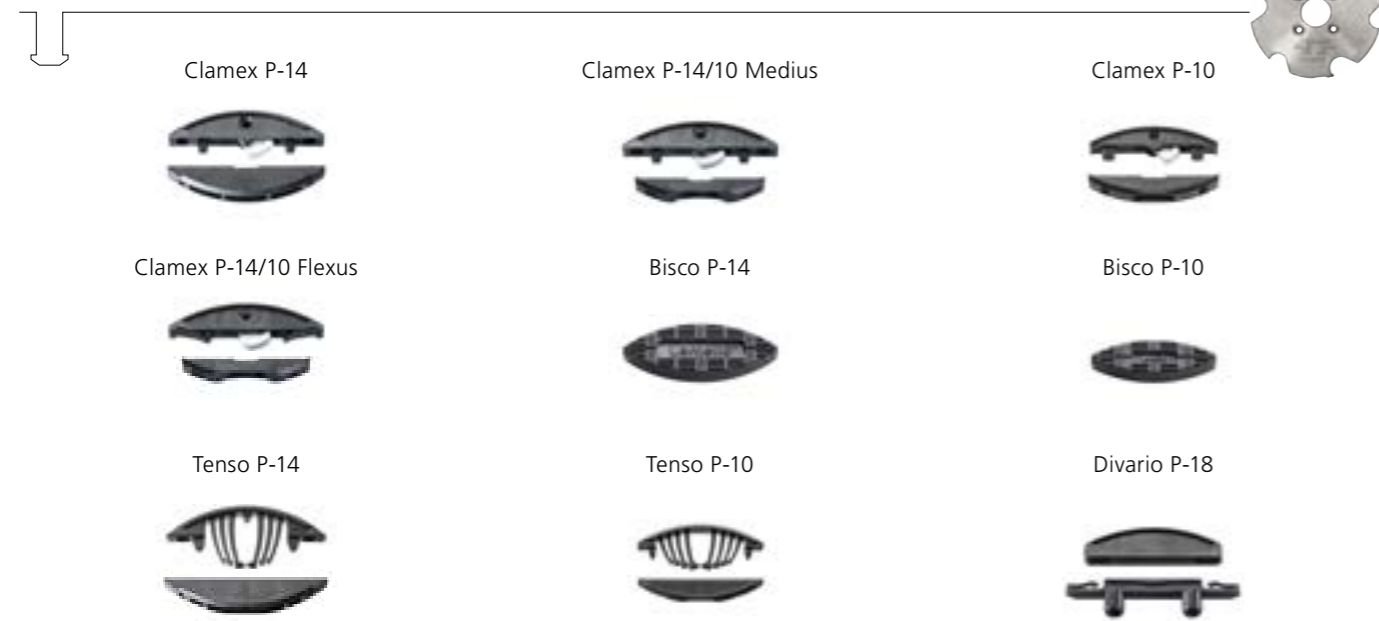


Versatile use with many different connecting elements.

With the Zeta P2, you can quickly and easily connect parts with a range of angles and joining situations. Suitable for individual pieces of furniture as well as prototypes and line production.



### With P-System groove



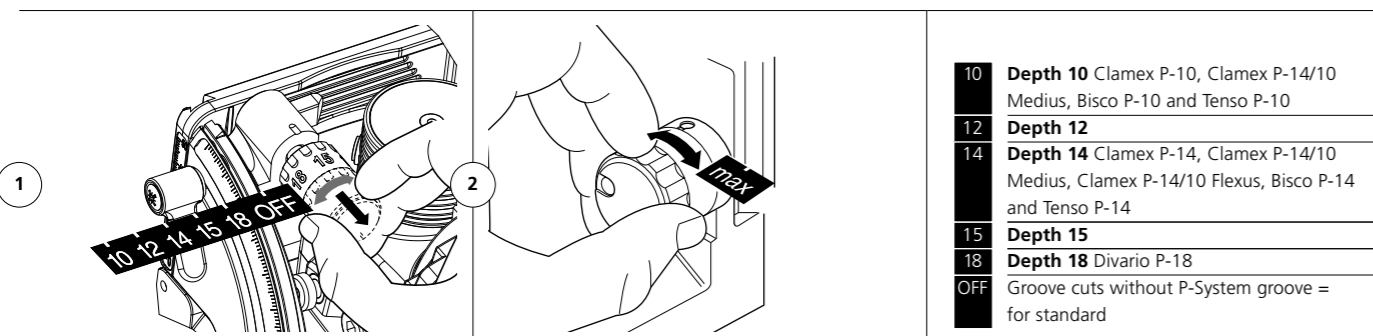
### With 4 mm Lamello System groove cutter



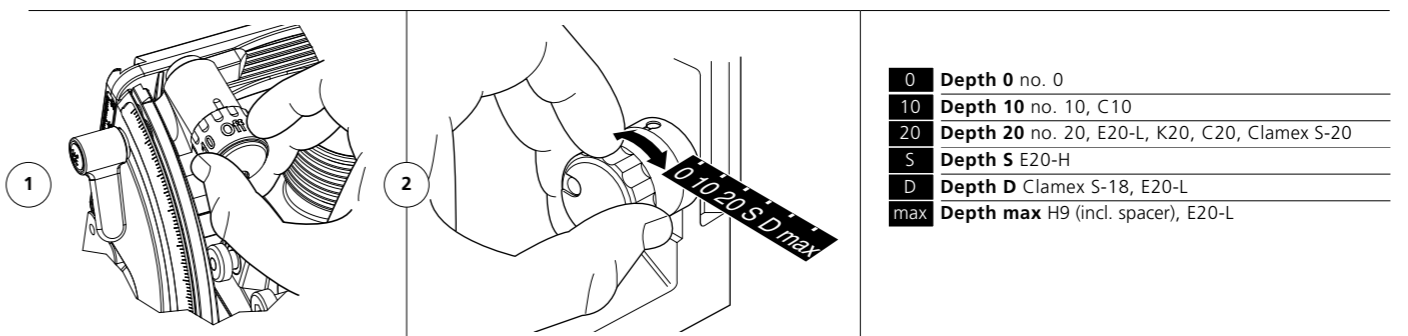
### With 3 mm Lamello System groove cutter



### P-System depth adjustment



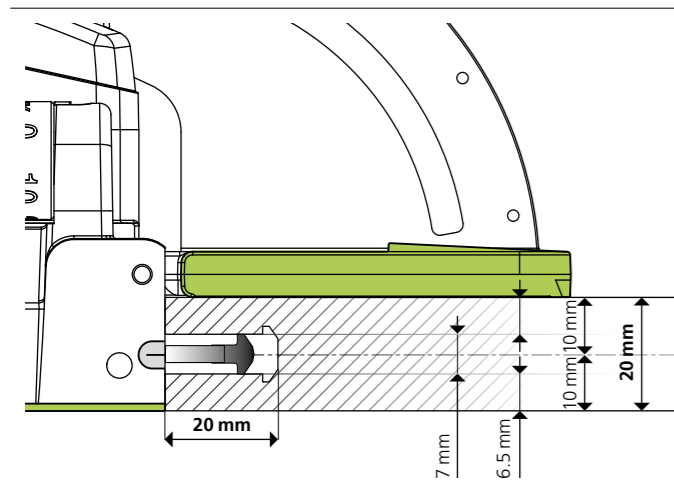
### Lamello depth adjustment system





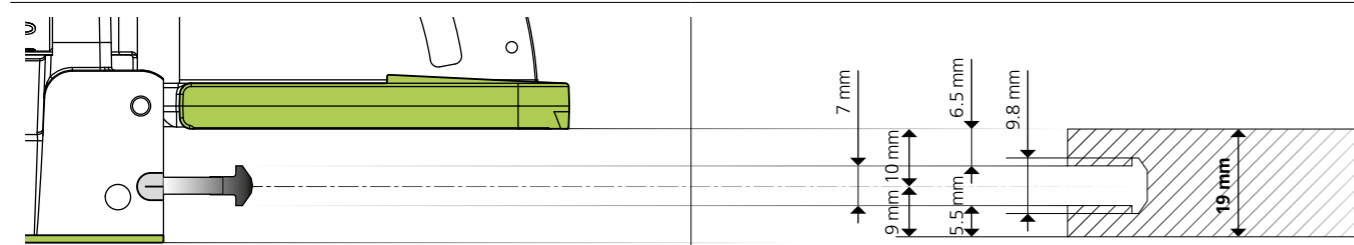
# Changing the cutter position

Using spacers



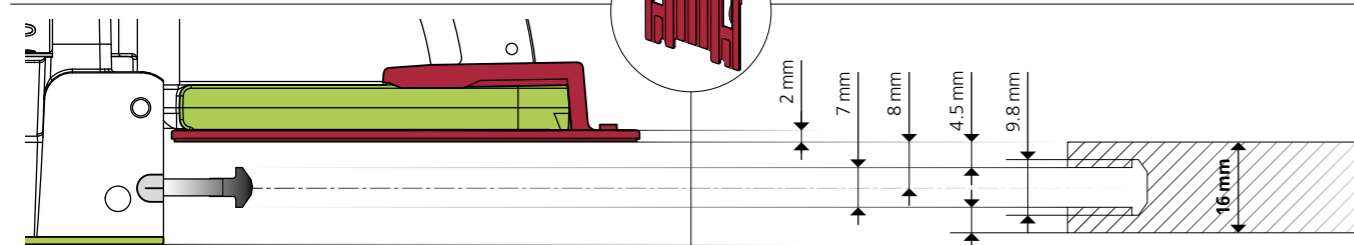
- ➔ The underside of the **base plate** and the **swivelling front** are reference surfaces with which the Zeta P2 is positioned on a work piece.
- ➔ The position of the **cutter** lies precisely in the centre between these two surfaces, so that the distance from the centre of the cutter to the edge will always be 10 mm.
- ➔ This distance can be altered by using a **spacer** clipped to the swivelling front.

Without spacer

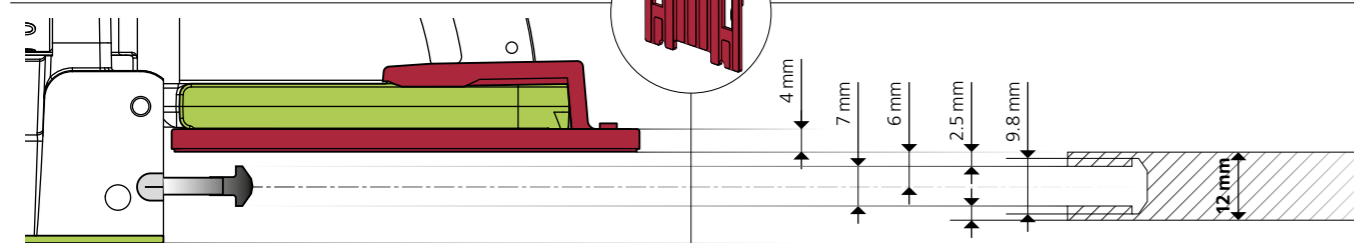


With spacer

With 2 mm spacer used in 16 mm material thickness



With 4 mm spacer used in 12 mm material thickness



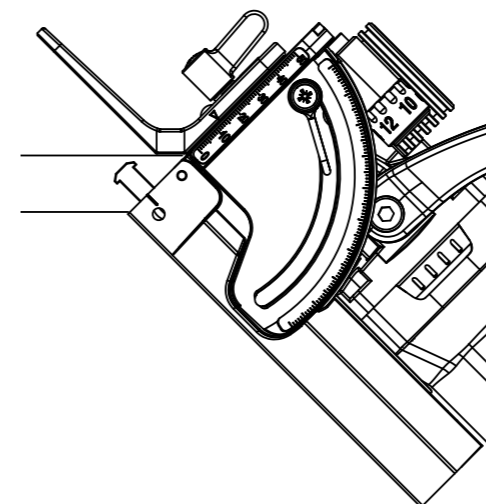
# Joints in various angles

P-System grooves on edges cut to an angle



To create **joints in various angles**, at least one of the two workpieces needs to have one of its edges cut to an angle. There are **two possibilities** to cut a groove into an edge: Applying the Zeta P2 either on the outer side or the inner side of the work piece as the reference surface.

A. Positioning the Zeta P2 on the **face** of the workpiece:



Using this method, the **multifunctional stop square is attached to the swivelling front and fixed at the desired position.**

The machine is then applied on the work piece in such a manner, that the stop square rests on the outer side (green surface) of the workpiece.

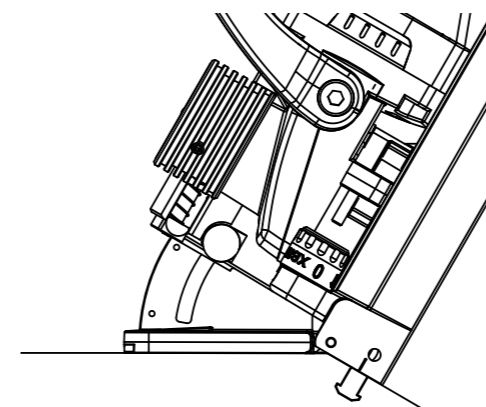
**Advantages**

- Perfectly flush on the visible work piece outer side. Material tolerances cannot lead to misalignment with this method
- Steplessly adjustable stop square, allowing for perfect positioning of the groove in every board thickness
- Thick work pieces with two rows of grooves (see picture above) with varying groove positions to increase strength
- No mistakes due to sliding during cutting because the machine sits very tightly in its position

Only angles 45° oder 67.5° are possible with this method



B. Positioning the Zeta P2 on the **inner side** of the workpiece:



Using this method, the **swivelling front is adjusted to the angle of the workpieces edge and then fixed in that position.**

The machine now lies on the inner side (green surface) of the work piece, due to which material tolerances can show on the outer side of the workpieces.

**Advantages**

- The groove position is fixed, however, to two more positions are available using the 2 mm or 4 mm spacers
- The advantage of this method is that all angles from 0-180 degrees are possible

# Networked production

From planning and design to procurement, programming and machining with CNC.

Our planning and processing partners support you with integrating Lamello connecting elements into your production process, from A to Z.

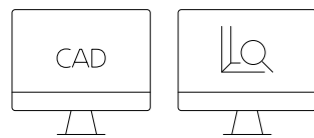
## CAD/ERP/CAM software



## CNC machines/Aggregates/CNC tools



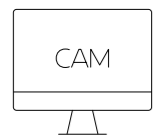
## Components for the successful integration of Lamello connection systems into your networked production



### CAD/ERP/Configurator software

- Design and planning software with integrated Lamello connectors
- Also download CAD data:
  - from the Lamello website
  - from iFurn
  - from specialist retailers (ComNorm)

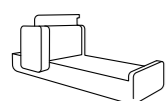
The degree of integration of the data and the parameterised position rules influence planning efficiency.



### CAM software

- Software for generating CNC programming data
- Post-processor

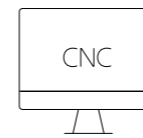
Data transfer between CAD and CNC, and in particular the control of the macros/component, must be individually coordinated.



### CNC machine

- Machine with 3/4/5-axis

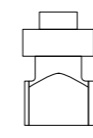
The number of axes and equipment options influence the processing possibilities



### CNC software

- Purchase software for machine/macro/component from the manufacturer or
- Program the machining process yourself

The macro/component determines/affects the processing possibilities



### Suitable aggregate

- Aggregate sub-program
- The angle aggregate makes it easier to cut the P-System groove in the surface and the centre of the surface

The right unit can significantly increase efficiency when cutting connectors.



- Purchase tools from Lamello or a P-System tool partner
- You can find the tools recommended by Lamello on **PAGES 60-61**.

The right cutting tool can significantly increase precision and efficiency when cutting the connectors

**Note: These are planning and machining tips, please contact your system providers/specialists if necessary.**

# P-System with CNC

Joining methods and requirements for  
CNC machines/machining options



CNC machines		With consoles/ vertical or horizontal					With nesting technology					
Number of axes		3			4	5	3			5		
			Machining option	Machining option			Machining option		Machining option			
Joining methods	Machining											
	Access drill hole											
	Profile groove in the edge											
	Profile groove on the surface (close to the edge)											
	Profile groove on the surface (centre of the surface)*											
	Access drill hole 45°											
	Profile groove in the edge 45°											
	Access drill hole 22 – 108°											
	Profile groove in the edge 22 – 108°											

\* The Divario P-18 can also be used as an alternative connecting element in the middle of the surface. (2 x 8mm holes without profile groove)

<sup>1</sup> Without a C-axis, the angle unit cannot be rotated by 90°/180°. Alternatively, the workpiece could be rotated and work in two steps.

The information concerns technical options regarding how the applications could be implemented.

These must be adapted to your company facilities and coordinated with the planning and machining partners.

Additional explanations for the requirements of the CNC machines/machining options



Detailed information on machining	Detailed information on machining	Possible setup of aggregates and tools	Comments
			<b>Integrated CNC Z-axis</b> with drill (5/6 mm) or with <b>collet chuck</b> for clamping Ø 10 mm and drill 131556  P-System CNC drill bit on <b>PAGE 60</b>
			<b>Saw blade clamp</b> Ø 40/DTK 52 mm and cutter 132143 or with <b>collet chuck</b> and cutter arbor  You can find dimensions for cutters and clamping Ø and lengths of cutter arbors on <b>PAGE 60/61</b>
			<b>Angle aggregate</b> – One to four spindle angle aggregates – Floating trimming unit for P-System – Corner notching aggregate – Aggregate for door locks  A unit overview can be found on the Lamello website: <a href="http://www.lamello.com">www.lamello.com</a> under planning and machining partners
			<b>Manually adjustable swivelling aggregates</b> <b>Information:</b> Several tool changes required for angle cuts, drilling and P-System grooves  <b>Note:</b> The cutting depth in the centre of the surface may be restricted depending on the model. <b>Tip:</b> For a mitre, the drill hole could be made with the manual drill
			<b>Automatically adjustable swivelling aggregates with automatic tool changer (FLEX5+C/5-MOTION PLUS/Flex5+C, from year of manufacture 2015)</b> – Tool holder WFC 40-25 clamping Ø 10 mm for drill – Drill shank Ø 10 mm, tool protrusion max. 50 mm – Tool holder WFC 40-25 with flange and cutter 132143  <b>Note:</b> In the centre of the surface, the profile groove depth is limited to 10 mm
			<b>Shrink chuck</b> for clamping Ø 12 x 40 mm and shank tool 131342 or <b>collet chuck</b> for clamping Ø 12 x 40 mm and shank tool 131342  P-System CNC shank tool cutter on <b>PAGE 61.</b>

\* More information on **PAGES 60–61**

The information concerns technical options regarding how the applications could be implemented. These must be adapted to your company facilities and coordinated with the planning and machining partners.

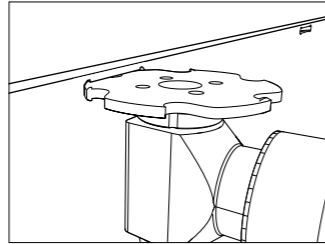
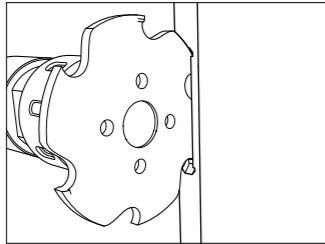
Possible combination of CNC machines with Zeta P2

More regarding the machining on **PAGE 59**

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# P-System equipment options

For CNC machines for particularly efficient machining



## Vertical and horizontal CNC machining centres «CNC compact class»



**HOMAG**

**DRILLTEQ V-500**  
25-spindle +  
1x aggregate (VKNR 1549)  
1x tool set (VKNR 9763)

1 · 2 · 3



**HOLZHER**

**EVOLUTION 7405  
Connect**

1 · 2 · 3



**BIESSE**

**Brema Eko 2.1**  
1x aggregate  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

1 · 2 · 3



**BIESSE**

**Brema Eko 2.2**  
1x aggregate for 90°  
1x aggregate 45° for 2x 45°  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

1 · 2 · 3 · 4



**masterwood**

**Project TF 100/TF 100 2.0**  
1x aggregate  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

1 · 2 · 3



**morbidelli**

**cx 210**  
1x aggregate  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

1 · 2 · 3



**HOLZHER**

**Nextec 7707**  
1x tool set

1 · 2 · 3



**Vitap**  
Create Smarter

**Vitap K2 2.0**  
1x aggregate  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

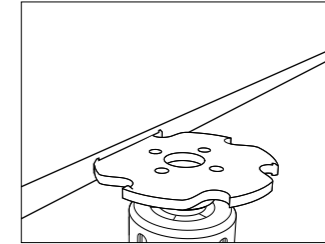
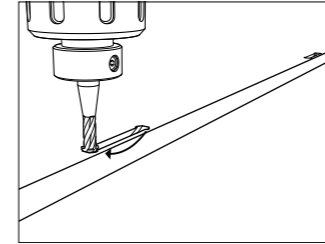
1 · 2 · 3



**FORMAT**

**Creator 950**  
1x P-System CNC  
groove cutter in HSK63F  
1x P-System CNC shank tool  
cutter\* in HSK63F  
1x drill Ø 6 mm  
  
\*optional for P-System CNC  
shank tool cutter:  
1x aggregate for 90°  
1x P-System CNC groove cutter

1 · 2 · 3



**GANNOMat**

**ProTec + P-System  
add-on package**  
Editor with  
Lamello P-System macro  
1x P-System CNC  
groove cutter in HSK63F  
1x P-System CNC cutter arbor  
1x P-System CNC shank tool  
cutter  
1x drill Ø 6 mm

1 · 2 · 3



**HOMAG**

**DRILLTEQ V-200**  
woodWOP «Lamello P-System»  
component  
1x P-System tool set

1 · 2 · 3



**HOMAG**

**DRILLTEQ V-310**  
for 180° + 90° joints:  
woodWOP component  
«Lamello P-System»  
1x P-System tool set

additionally for  
45° joints:  
2x aggregate 45°  
1x tool set for 45°

1 · 2 · 3 · 4

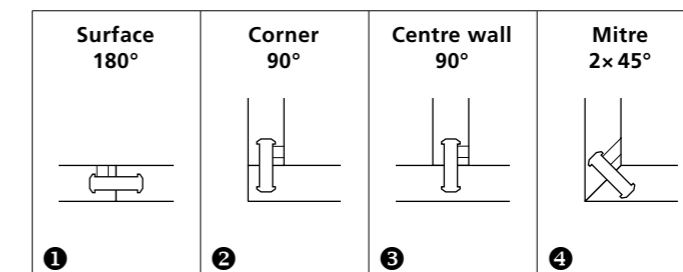


**morbidelli**

**cx 110**  
1x aggregate  
2x P-System CNC  
groove cutters  
1x P-System CNC cutter arbor  
1x drill Ø 6 mm

1 · 2 · 3

### Connectivity



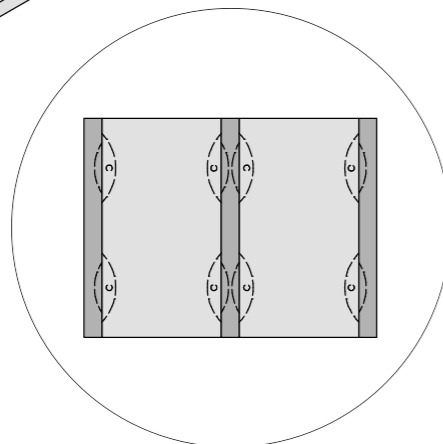
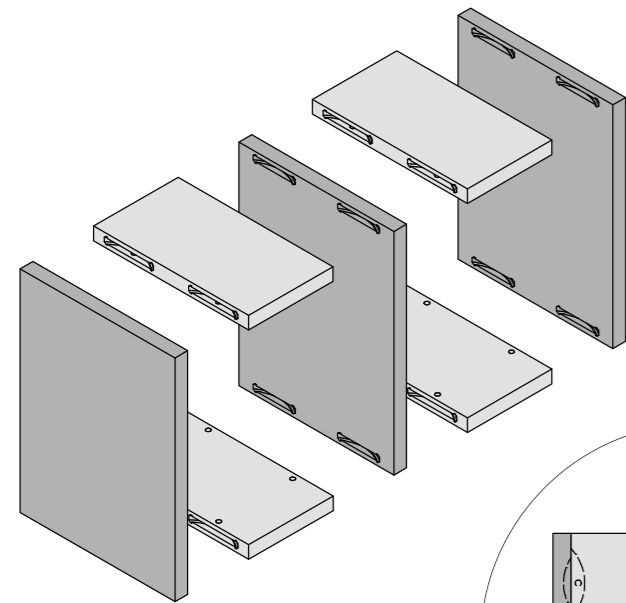
[www.lamello.com](http://www.lamello.com)

Experience CNC live  
and receive compre-  
hensive product  
information!



# Ideas for standardising

The machining on a CNC machine



Clamex P-14 CNC with lever, Clamex P-14 with lever and Clamex P-14/10 Flexus with lever are compatible with all Clamex P elements without lever.  
This allows for a standardised construction method.

**Depth 14 mm** for all P-System grooves  
in the panel edge (with the access hole)

	<b>Clamex P-14 CNC</b>	Art. No.
2000 pieces element with lever		<b>145388</b>

	<b>Clamex P-14</b>	Art. No.
2000 pieces element with lever		<b>145338</b>

	<b>Clamex P-14/10 Flexus</b>	Art. No.
2000 pieces element with lever		<b>145318</b>

**Depth 10 mm** for all P-System grooves  
in the surface

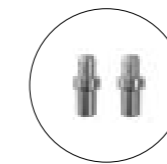
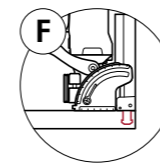
	<b>Clamex P-10</b>	Art. No.
2000 pieces element without lever		<b>145358</b>

	<b>Clamex P-10 Medius</b>	Art. No.
2000 pieces element without lever		<b>145369</b>

# Possible combination of CNC machines with Zeta P2

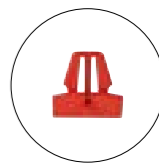
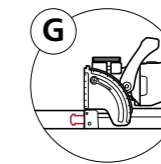
Precise drilling on a CNC machine; use these drill holes to position the Zeta P2 to cut the P-System grooves.  
This application is especially ideal if the CNC machine is a nesting machine and or no aggregate is available.  
This method combines the precision and efficiency of a CNC machine and uses the simple and fast machining of a P-System groove with a Zeta P2.

## Positioning drill holes for the Zeta P2



**Positioning pin CNC for Zeta P2,**

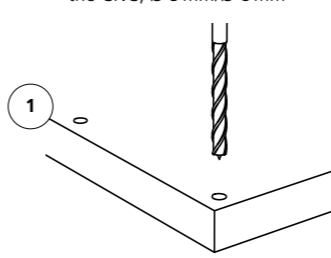
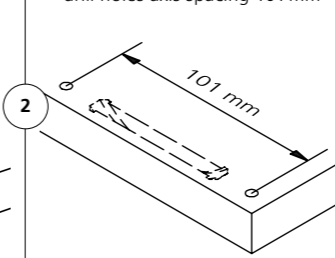
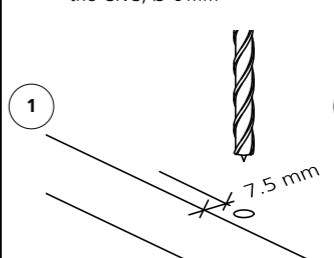
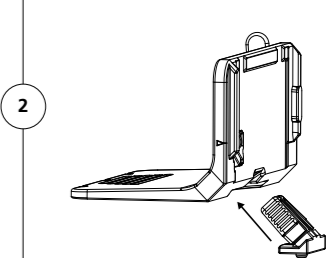
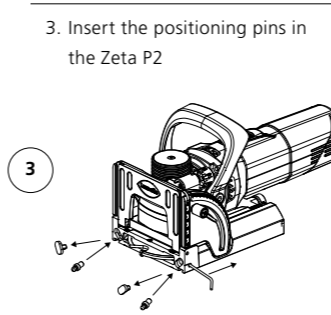
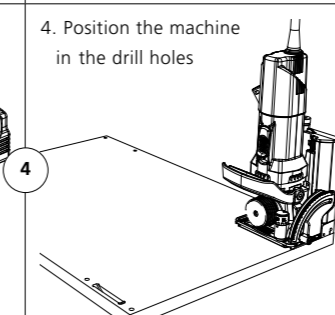
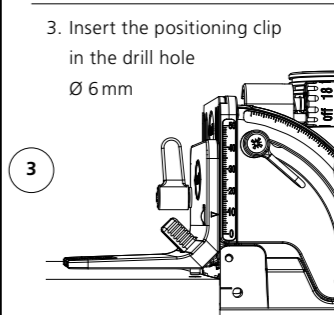
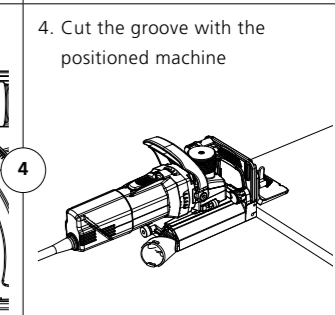
<b>2 pieces</b>	Art. No.
Ø 5 mm	<b>251048</b>
Ø 8 mm	<b>251066</b>



**Positioning clip CNC**

<b>for Zeta P2</b>	Art. No.
Ø 6 mm	<b>251067</b>
for positioning in the Clamex P access hole (6 mm)	

## Machining steps

<p>1. Drill the positioning holes with the CNC, Ø 5 mm/Ø 8 mm</p> 	<p>2. Hole pattern of the positioning drill holes axis spacing 101 mm</p> 	<p>1. Drill the positioning hole with the CNC, Ø 6 mm</p> 	<p>2. Insert the positioning clip</p> 
<p>3. Insert the positioning pins in the Zeta P2</p> 	<p>4. Position the machine in the drill holes</p> 	<p>3. Insert the positioning clip in the drill hole Ø 6 mm</p> 	<p>4. Cut the groove with the positioned machine</p> 

# CNC tools

For the P-System



## P-System CNC tools



**P-System CNC drill bit** Art. No.  
6 mm, solid carbide, for mitres, **131556**  
L = 100/35 mm, shank = Ø 10 mm



**P-System groove cutter CNC DP (diamond),  
Ø 100.4 x 7 mm** Art. No.  
Ø 100.4 x 7 x Ø 30 mm, Z3, NL 4 x Ø 6.6 x Ø 48 mm **132142**  
suitable for all P-System CNC cutter arbor listed  
on the right  
Ø 100.4 x 7 x Ø 30 mm, Z3, NL 4 x Ø 6.6 x Ø 48 mm **132149**  
LH for Weeke BHX 200 / DRILLTEQ V-500  
(left hand rotation)



Art. No.  
Ø 100.4 x 7 x Ø 30 mm, Z6, NL 4 x Ø 6.6 x Ø 48 mm **132145**  
suitable for all P-System CNC cutter arbor listed  
on the right



Art. No.  
Ø 100.4 x 7 x Ø 40 mm, Z3, NL 4 x Ø 5.5 x Ø 52 mm **132143**  
E.g. for angle aggregates and FLEX5+C/  
5-MOTION PLUS



Art. No.  
Ø 100.4 x 7 x Ø 16 mm, Z3, NL 4 x Ø 5.5 x Ø 28 mm **132144**  
E.g. for corner notching aggregate



Art. No.  
Ø 100.4 x 7 x Ø 35 mm, Z3, NL 4 x Ø 5.5 x Ø 50 mm **132148**  
e.g. for Brema Eko 2.1,  
Masterwood Project TF 100, Format4 D-Jet,  
Morbidelli cx110  
Ø 100.4 x 7 x Ø 35 mm, Z3, NL 4 x Ø 5.5 x Ø 50 mm **132180**  
LH e.g. for Format4 Nesting profit H08  
(left hand rotation)



**CNC cutter arbors for P-System groove  
cutter, Ø 30, NL 4 x M4 x Ø 48 mm** Art. No.  
Shank Ø 20 x 50 mm, L = 102 mm **132150**



Art. No.  
Shank Ø 25 x 60 mm, L = 102 mm **132151**



Art. No.  
Shank Ø 16 x 50 mm, L = 85 mm **132152**



Art. No.  
Shank Ø 16 x 55 mm, L = 68 mm **132153**



Art. No.  
Shank Ø 16 x 50 mm, L = 85 mm, with clamping **132154**  
surface (2°- angle) e.g. for aggregate for door locks



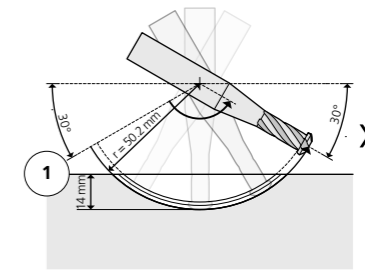
Art. No.  
Shank Ø 20 x 50 mm, L = 85 mm, **132155**  
with clamping surface (2°- angle)  
e.g. for aggregate for door locks

**132159**  
M6 x 16 mm Torx countersunk bolt, 4 pieces,  
suitable for cutter arbors  
**271919**  
Screwdriver with cross-grip, Torx T20 x 100 mm

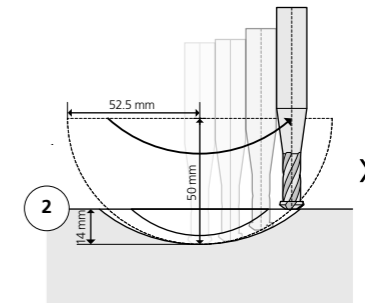


**P-System CNC shank tool cutter** Art. No.  
HW solid (carbide), shank Ø 12 x 40 mm, L = 80 mm **131342**

## One tool with 2 functions



**P-System CNC  
shank tool cutter  
with 5-axis**



**P-System CNC  
shank tool cutter  
with 3-axis**

**Lamello recommends making all profile  
grooves with a disc cutter, primarily for  
reasons of precision, service life, machining  
time and thus economic efficiency.**

A P-System CNC shank tool cutter or contour cutter should  
only be used for the machining of surfaces if no angle  
aggregate is available.

# Technical information

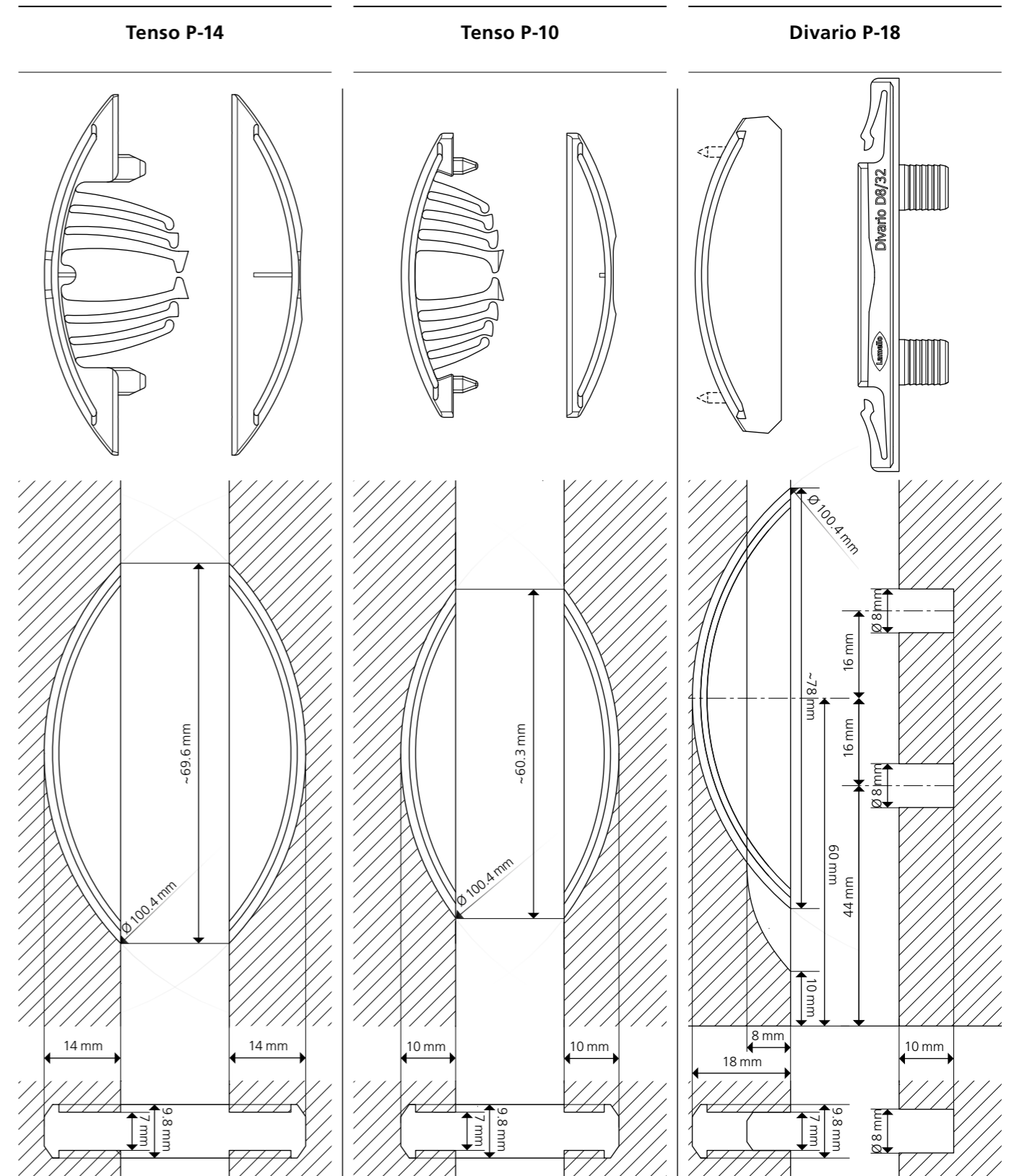
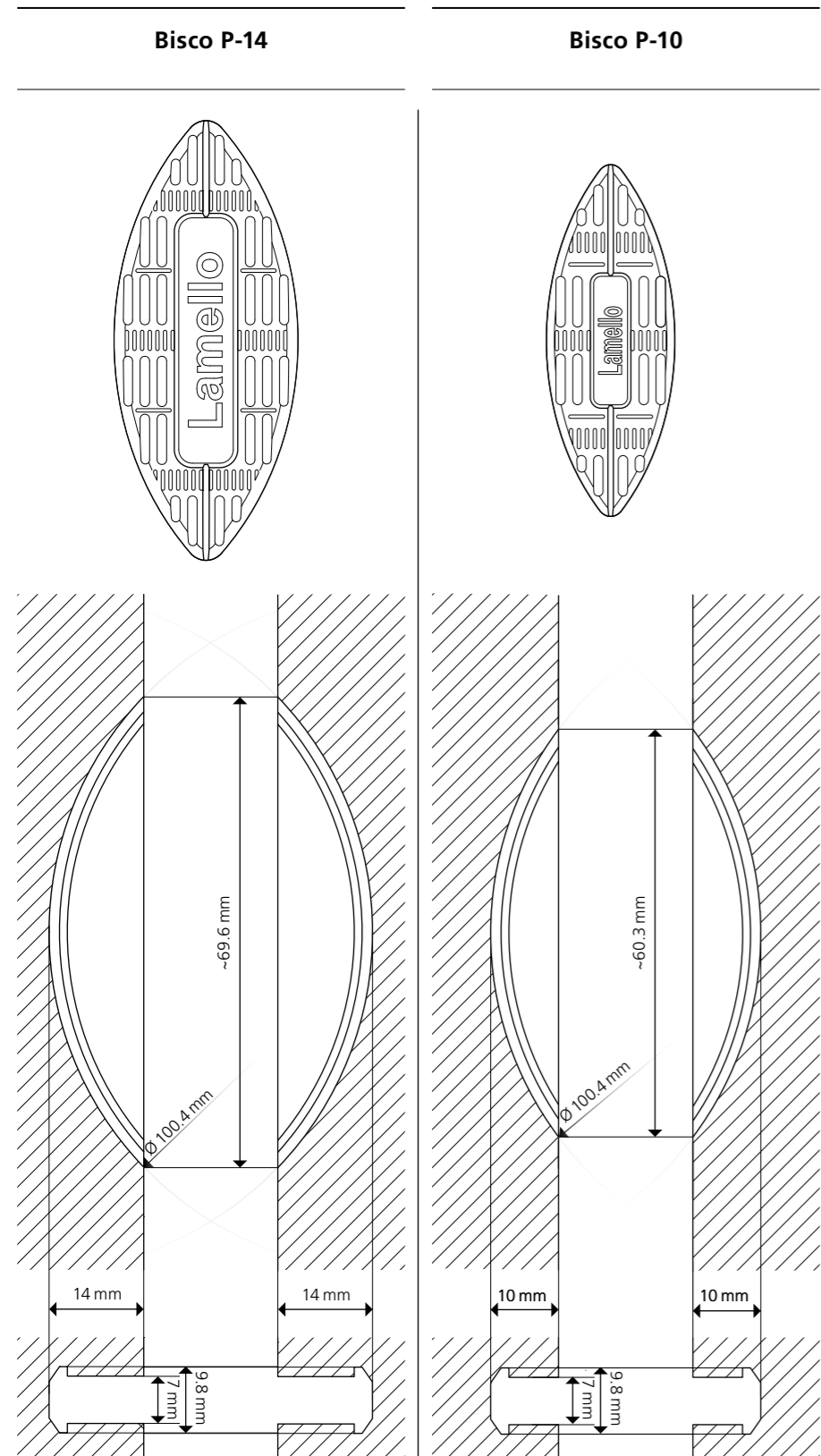
Overview of connectors + grooves (scale 1:1)

Clamex P-14		Clamex P-10		Clamex P-14/10 Medius		Clamex P-14/10 Flexus		Clamex P-14 CNC with lever		Clamex P-14 without lever		Clamex P-10 without lever		Clamex P-10 Medius without lever	
<b>Tensile strength (N)</b>	Up to		Up to		Up to		Up to		Up to		Up to		Up to		Up to
MDF	1210 <sup>1</sup>	MDF	700 <sup>1</sup>	MDF	810 <sup>1</sup>	MDF	790 <sup>1</sup>	MDF	1210 <sup>1</sup>	MDF	950 <sup>1</sup>	MDF	950 <sup>1</sup>	MDF	810 <sup>1</sup>
Particle board	1070 <sup>1</sup>	Particle board	540 <sup>1</sup>	Particle board	620 <sup>1</sup>	Particle board	710 <sup>1</sup>	Particle board	1000 <sup>1</sup>	Particle board	880 <sup>1</sup>	Particle board	880 <sup>1</sup>	Particle board	730 <sup>1</sup>
Beech	1870 <sup>1</sup>	Beech	900 <sup>1</sup>	Beech	1100 <sup>1</sup>	Beech	1190 <sup>1</sup>	Beech	1660 <sup>1</sup>	Beech	1560 <sup>1</sup>	Beech	1560 <sup>1</sup>	Beech	1220 <sup>1</sup>



# Technical information

Overview of connectors + grooves (scale 1:1)



**Tensile strength (N)**

Depending on the adhesive

Depending on the adhesive

**Load limits per connector (N)\***

19 mm	
MDF	740 <sup>1</sup>
Particle board	590 <sup>1</sup>
Beech	1820 <sup>1</sup>

**Tensile strength (N)**

All materials	600 <sup>1</sup>
---------------	------------------

# Accessories / Spare Parts

P-System

## P-System



### P-System connector assortment

**professional** Art. No.

Scope of delivery: 120 pairs Clamex P-14, **145323**

30 pairs Clamex P-14/10 Flexus, 30 pairs Clamex P-10, 120 pairs Tenso P-14 incl. preload clip, 30 pairs Tenso P-10 incl. preload clip, 20 pieces Bisco P-14, 20 pieces Bisco P-10, 80 pairs Divario P-18, Divario installation tool/drill/ marking gauge, Clamex assembly tool, Tenso P-14/10 preload tool, Sortainer T-loc incl. dividers



### P-System connector assortment

**basic** Art. No.

Scope of delivery: 80 pairs Clamex P-14, **145321**

80 pairs Tenso P-14 incl. preload clip, 30 pairs Clamex P14/10 Flexus, 30 pairs Clamex P-14/10 Medius, 20 pieces Bisco P-14, Tenso P-14/10 preload tool, Systainer<sup>3</sup> M187 incl. plastic insert

## Clamex P



### Clamex assembly tool

Art. No.

For all angles, fast and flexible, hex 4 x 30 mm, **251993**  
length 290 mm



### Allen key

Art. No.

4 mm, 75 x 55 mm **271945**

4 mm, 120 x 50 mm **271945A**



### Cover cap, 100 pieces, 90°

Art. No.

RAL 9010 pure white **335280**

RAL 9011 graphite black **335281**

RAL 1014 ivory, pine **335282**

RAL 1011 brown beige, beech **335283**

RAL 8007 fawn brown **335284**

RAL 8017 chocolate brown **335289**

RAL 9002 grey white **335285**

RAL 7035 light grey **335286**

RAL 7040 window grey **335287**

RAL 7031 blue grey **335288**

RAL 7022 umbra grey **335298**

### Cover cap, 500 pieces, 90°

Art. No.

RAL 9010 pure white **335362**

RAL 9011 graphite black **335363**

RAL 1014 ivory, pine **335364**

RAL 1011 brown beige, beech **335365**

### Cover cap, 5000 pieces, 90°

Art. No.

RAL 9010 pure white **335296**

RAL 9011 graphite black **335291**

RAL 1014 ivory, pine **335292**

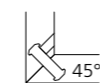
RAL 1011 brown beige, beech **335293**

RAL 8007 fawn brown **335294**

RAL 8017 chocolate brown **335299**

RAL 9002 grey white **335295**

RAL 7040 window grey **335297**



### Cover cap, 100 pieces, 45°

Art. No.

RAL 9010 pure white **335380**

RAL 9011 graphite black **335381**

RAL 1014 ivory, pine **335382**

RAL 1011 brown beige, beech **335383**

RAL 8017 chocolate brown **335384**

RAL 7035 light grey **335386**

RAL 7022 umbra grey **335388**

### Cover cap, 5000 pieces, 45°

Art. No.

RAL 9010 pure white **335390**

RAL 1014 ivory, pine **335392**

RAL 1011 brown beige, beech **335393**



### Clamex P drill jig

Art. No.

Incl. drill, from 22.5° for all **125344**

Clamex P connectors (P-10, P-14)

Angle for drill jig **255250**

Element insert for size P-10 **255251**

Element insert for size P-14 **255252**



### Clamex P drill jig long

Art. No.

Drill jig for thick workpieces 100 mm, **125345**

(P-14), incl. drill



### Drill

Art. No.

Spiral drill Ø 6 mm with centering point, **131506**

for Clamex P drill jig

Spiral drill Ø 6 mm with centering point, **131508**

for Clamex P drill jig long

Depth adjuster for drill, 6 mm diameter **255243**

# Accessories / Spare Parts

P-System



## Combination CNC and Zeta P2



**Positioning pin CNC for Zeta P2\***,

**2 pieces**

Art. No.

Ø 5 mm

**251048**

Ø 8 mm

**251066**



**Positioning clip CNC for Zeta P2\***

Art. No.

Ø 6 mm

**251067**

for positioning in the Clamex P access hole (6 mm)

## Tenso P



**Tenso P-14/10 preload tool**

Art. No.

Tool to pre-load the Tenso P

**145400**



**P-System 4 mm depth  
adjuster attachment for P-8**

Art. No.

For offset installation on dividing panels

**145439**

16 mm with Tenso P-10

## Divario P



**Divario P-18 Marking jig metal with  
marking points**

Art. No.

Marking jig incl. drill with centering point and  
rotating depth collar for the precise drilling of  
Divario drill holes by hand

**125510**



**Divario P-18 Marking jig plastic,  
to mark with a pencil**

Art. No.

Marking jig to mark the Divario holes  
with a pencil

**125511**



**Divario P-18 Installation tool**

Art. No.

Divario P-18 Installation tool for fixing  
the Divario in the workpiece

**125500**



**Divario P-18 Starter set**

Art. No.

Divario P-18, 80 pairs, Divario installation tool,  
marking jig plastic

**145550S**



**Divario P-18 starter kit**

Art. No.

In systainer<sup>3</sup> M137, scope of delivery:

**145552**

Divario P-18, 80 pairs, drill, marking jig in metal  
and installation tool

## Zeta P2



**Stop square for**

**Zeta P2, Top 21, Classic X**

Art. No.

For stabilising the biscuit joiner in the  
vertical position, ideal for obtuse mitre joints

**251044**



**Spacer for Zeta P2, Top 21, Classic X**

Art. No.

5 mm, aluminium for 18 mm panels

**253027**

2 mm, plastic for 16 mm panels

**253023**

4 mm, plastic for mitres

**253026**



**P-System groove cutter DP (diamond),**

**Ø 100.4 × 7 × Ø 22 mm**

Art. No.

Z3, 4 NL for Zeta P2

**132140**



**P-System groove cutter HW (carbide),**

**Ø 100.9 × 7 × Ø 22 mm**

Art. No.

Z3, 4 NL for Zeta P2

**132141**



**Dust bag**

Art. No.

For Zeta P2/Top 21/Classic X

**257532**

## Batteries



**Batteries**

Art. No.

Battery pack 18 V, LiHD 4.0 Ah

**313013**

Battery pack 18 V, LiHD 5.5 Ah

**313015**

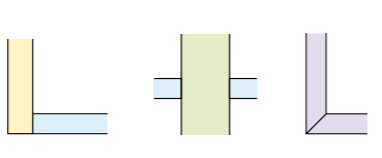




Battery charger ASC 55, plug type C Euro

**123100DE**

Battery charger ASC 55, plug typeG

**123100GB**

# Overview of connectors

							Product page	Product drawing 1:1	
			Material strength (mm)						
			1	2	3	4			
<b>P-System</b>									
 <b>Clamex P</b> Detachable	<b>Clamex P-14</b>	80	<b>145334</b>	≥ 12	≥ 15	≥ 29	≥ 18	P. 10	P. 62
		300	<b>145346</b>						
	1000	<b>145356</b>							
	<b>Clamex P-14/10 Medius</b>	80	<b>145370</b>		≥ 11	≥ 16	≥ 15	P. 12	P. 62
		300	<b>145371</b>						
		1000	<b>145357</b>						
	<b>Clamex P-10</b>	80	<b>145372</b>		≥ 16	≥ 19	≥ 18	P. 14	P. 62
		300	<b>145373</b>						
1000		<b>145374</b>							
<b>Clamex P-14/10 Flexus</b>	80	<b>145315</b>	≥ 9*	≥ 16	≥ 18	P. 16	P. 63		
	300	<b>145316</b>							
	1000	<b>145317</b>							
 <b>Bisco P</b> Detachable	<b>Bisco P-14</b>	80	<b>145301</b>	≥ 12	≥ 11*	≥ 21*	≥ 18	P. 24	P. 64
		300	<b>145302</b>						
	1000	<b>145303</b>							
	<b>Bisco P-10</b>	80	<b>145304</b>		≥ 9*	≥ 17*	≥ 15	P. 24	P. 64
300		<b>145305</b>							
 <b>Tenso P</b> Glueing	<b>Tenso P-14</b>	80	<b>145415</b>	≥ 12	≥ 11*	≥ 19*	≥ 18	P. 26	P. 65
		300	<b>145425</b>						
		1000	<b>145435</b>						
	<b>Tenso P-10</b>	80	<b>145418</b>		≥ 9*	≥ 16*	≥ 15	P. 28	P. 65
300		<b>145428</b>							
 <b>Divario P</b> Sliding insertion	<b>Divario P-18</b>	80	<b>145550</b>	≥ 12	≥ 11	≥ 18	-	P. 32	P. 65
		300	<b>145560</b>						
		1000	<b>145570</b>						

\* Displacer installation (more information regarding on [PAGE 27/29](#))

## Disclaimer regarding load limits

Wherever we list information on material strength or loads for our products, they are empirical values of load limits, based on specifically defined test conditions similar to DIN 68501:2016-11. Specific characteristics, in particular to the effect that the products will reach the listed loads in the actual used case, are not thereby guaranteed. Rather, it is the responsibility of the respective user to check and ensure the suitability of the products for each specific used case. Since actual load limits substantially depend on circumstances unrelated to the products themselves, e.g. the properties of the carrier materials used, the selection of suitable screws, the assembly or the installation environment, any advice provided by us in the form of a product recommendation with regard to a specific suitability is always non-binding and does not release the user from his or her own examination.

**To the maximum extent possible under the law, all warranties, express or implied are DISCLAIMED. This includes, but is not limited to, any warranty of fitness for a particular purpose or merchantability. We undertake no responsibility that the goods except as may be included in any contract, and we assume no responsibility that the goods will be fit for any particular purpose, except as may be provided in any contract.**

Subject to modifications and amendments. Plastic parts may vary in colour due to the production process. Colour specifications are for guidance only.

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