

Lamello

# Catalogue

2023/2024

*english*



*A strong  
connection.  
Inspiring.*

*« Lamello's system solutions are synonymous with quality, innovation and excellent functionality, and are used across the globe where they have proven their worth millions of times over! »*

Susanne Affolter, Managing Director and Owner at Lamello AG



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The time-saving joining system with form-locking anchoring

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The original for efficient, intuitive and precise joints

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Subject to modifications and amendments

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*Creating  
value  
together*



*Far-reaching.  
Close to home.*



At home right  
across the globe.

We enjoy supporting you with our international sales network consisting of four subsidiaries, distributors in 50 countries and more than 400 sales partners worldwide. As such we are available locally for our customers anywhere and at any time, be it for individual advice, training or services.



Headquarter:  
– Switzerland

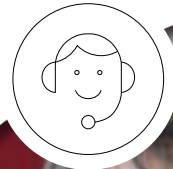
Subsidiaries:  
– Belgium/France/Netherlands  
– Germany  
– Italy  
– Austria

Markets with Lamello  
sales representatives:  
– England  
– Eastern Europe  
– Spain  
– Southeast Europe

# We are here for you!

## Support in person

Do you have any questions concerning our products or a certain application? Would you like to learn more about the process benefits for your business? Our qualified employees and sales partners will be happy to help you quickly and competently, whether by telephone, online or during a personal support on site.



## Latest news

Stay up-to-date and sign up for our Lamello News and e-newsletter. Become part of the Lamello community on social media and be inspired, or visit our stand at one of the numerous trade fairs. We are always happy to hear from you.



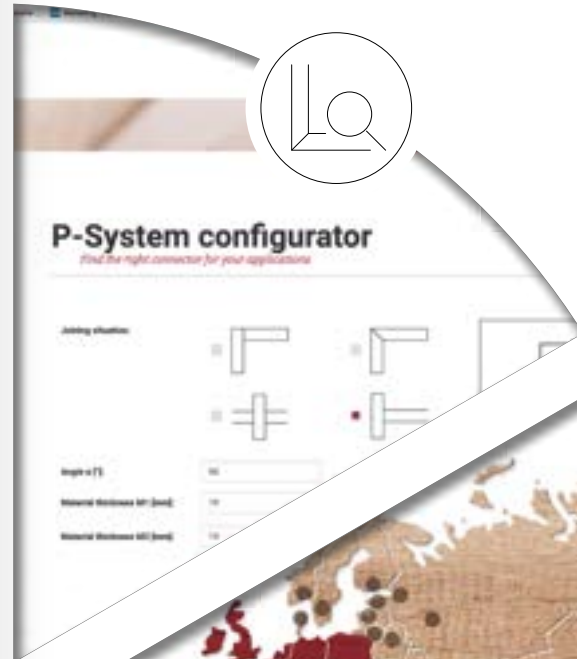
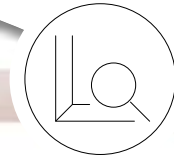
## Our services

Quality is one of the cornerstones of our business, and so our products are designed to last. If a repair is necessary, we can offer you uncomplicated service through our certified Lamello service partners and a spare parts warranty of at least 10 years.



## Support in your planning

With the connector search and the P-System configurator on our website, you can quickly find the right connector for your design and requirements. With CAD data for our connectors, tips and tricks, as well as videos about the wide range of applications, we can guide and support you in your planning on our website and on the Lamello YouTube channel.



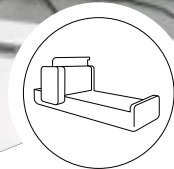
## Qualified sales partners

Our professional and committed sales partners provide you with qualified advice, always keeping you informed about new products. This way, you can see the benefits of our products first hand.



## Competent planning and machining partners

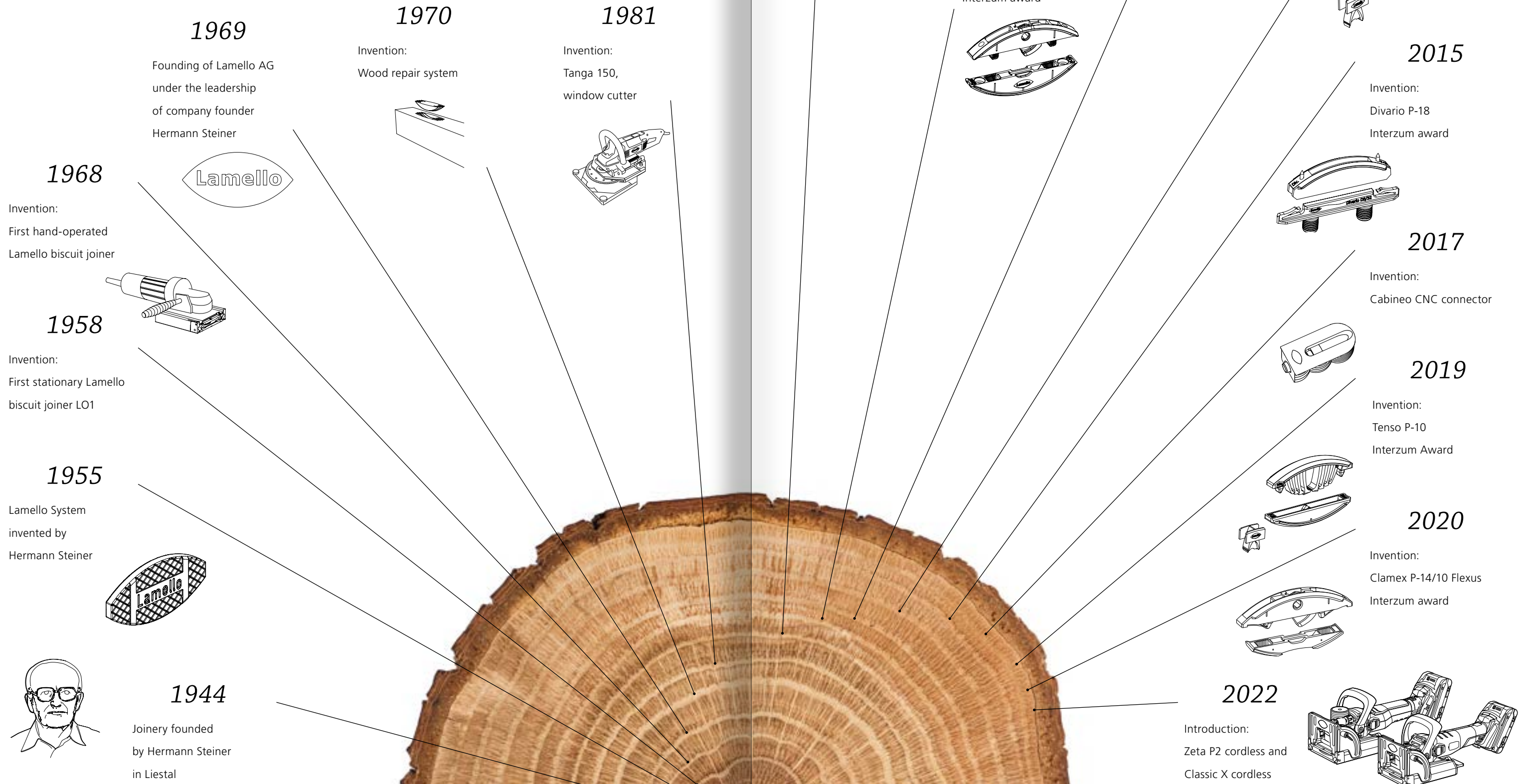
From planning and design to the right tool to machine with the CNC machine: more than 40 industry-leading partner companies support the efficient use and integration of our products into your production.



# Looking back. Thinking ahead.

Every milestone starts with an idea. However, revolutionary ideas do not just come about easily. It is only through many years of practical knowledge and intensive development working together with our

customers that we have been able to constantly come up with new solutions, and in so doing decisively shape the market for wood joining technology and wood processing to this day.



# In the centre: the customer

Lamello AG products are distributed and utilised globally. Cabinet makers, joiners, furniture manufacturers, carpenters, shop-fitters, furniture designers, kitchen manufacturers and many more have been using and relying on the innovative system solutions from Bubendorf for years. Some of these are longstanding business partners, who will be sharing some of their experiences with us. We appreciate the trust that we are met with and thank all our customers for the good teamwork.

## Nils Ingwersen

Process Planning Manager  
Carpentry Mario Beck, Hamburg, Germany

*«Our customers are frequently enthusiastic about the rapid assembly when using the P-System.»*

## Roger Schneider

Site Manager, Tschudin AG, Münchenstein, Switzerland

*«The Tenso has the advantage that it does not require any access holes, because it is self-clamping. This makes it the ideal connector for glued furniture without the use of additional screw clamps.»*

## Hannes Kofler

Owner and Managing Director, Joinery workshop Kofler, St. Felix, Italy

*«We previously lacked the right fitting for this application. The Clamex P-14/10 Flexus solved this problem. The connector came exactly at the right time, and has filled this gap very much to our satisfaction.»*

## Jeffrey De Smet

Self-employed carpenter, Artisanal interior furniture maker, Belgium

*«One day a customer placed an order for me to build a staircase, and I was looking for an easy-to-use system that saved me time and enabled me to work independently. With Tenso, all you have to do is to glue it, put the parts together and you're ready to go.»*

## Andreas Kuhlmann

Managing Director, Adolf Kuhlmann furnishing workshops, Schwerin, Germany

*«Lamello is an asset to us because it allows us to expand our possibilities.»*

## John Hampton

Production Manager, Artichoke, Somerset, England

*«Artichoke's pursuit of enhanced quality and improved efficiency has led it to the door of Swiss fixings specialist, Lamello.»*

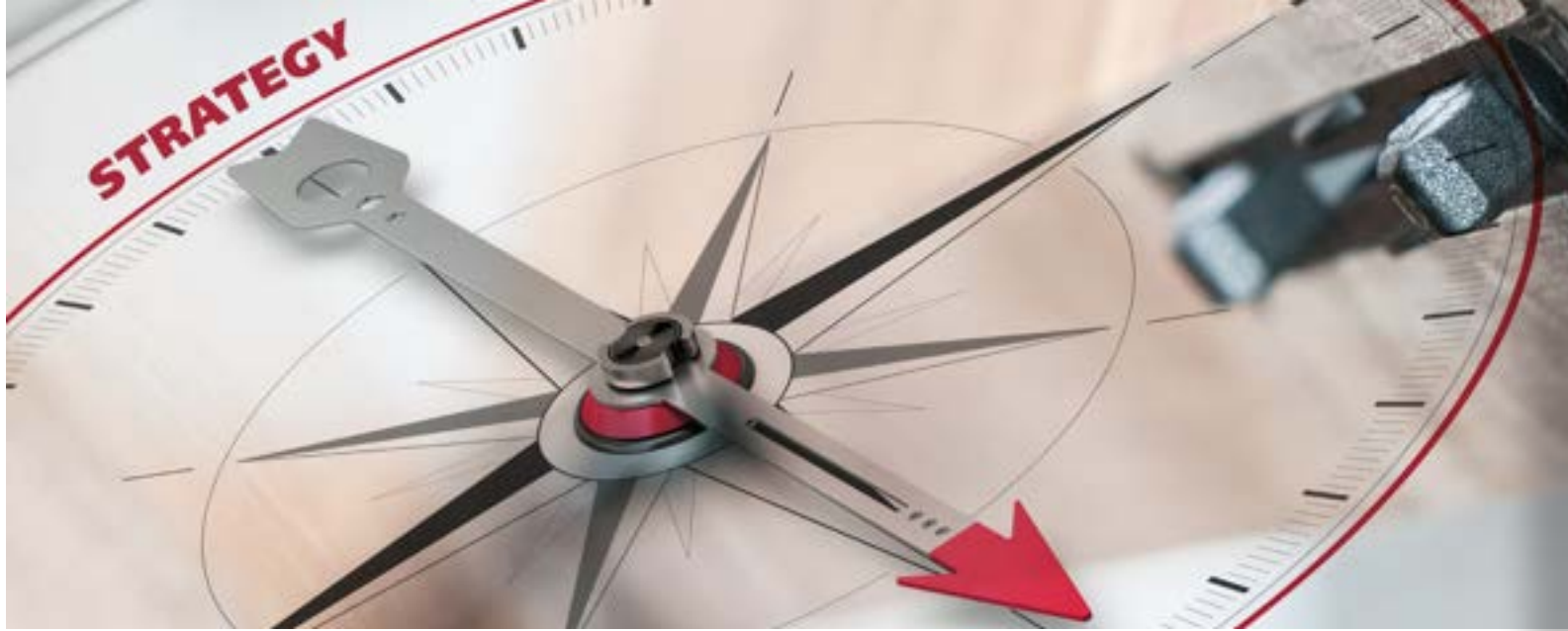
## Günther Schweiger

Speedmaster Managing Director, Eberstälzell, Austria

*«For us, the P System is the most innovative connector solution to have emerged in recent years.»*







## *Joining technology with 3 systems*



### P-System

The **P-System** from Lamello is an innovative and award-winning joining method. Clamex, Tenso and Divario connecting fittings make an entirely new level of flexibility, speed and simplicity possible throughout the design, manufacturing, transport and installation process.

The connector's installation and anchorage system is based on the P-System profile groove. The P-System groove for the connector can be cut either using modern CNC technology or very simply by hand using the Zeta P2 power tool from Lamello.



### Lamello System

The **Lamello System** is an exceptionally efficient, simple and precise joining system for various materials. It is based on a 4 mm groove and offers an enormous variety of joining solutions. The original wood biscuit has been supplemented by the self-clamping element, the clamping element and transparent plastic



### Drilling System

element for solid surface materials. The same applies to the Simplex and Clamex S-18 detachable connectors. These can be easily assembled and disassembled. All connectors can be machined with the biscuit joiners Classic X, Top 21 and Zeta P2.

The **Cabineo** is a one-piece furniture connector and is installed into a drilled or routed shape. No edge drilling is necessary – the machining happens solely in the surface. Due to this, Cabineo can be used with all kinds of CNC machines, including very simple 3-axis and nesting machines.

**Invis Mx2** is the unique connection that satisfies the highest demands for aesthetics, stability and productivity. With no visible openings, Invis Mx2 can be quickly detached and reconnected at any time via its magnet drive.

# Our strengths



## Independent & self-determined

In expanding our business, we constantly adapt to changing requirements. This helps us secure the long-term independence of our family company – it is a key element to maintaining our financial autonomy.



## Personal & unconstrained

As a family company, we cultivate a culture of appreciation. We encourage initiative in our employees and support them in taking on new responsibilities. In striving for improvement we always look for fast and pragmatic solutions.



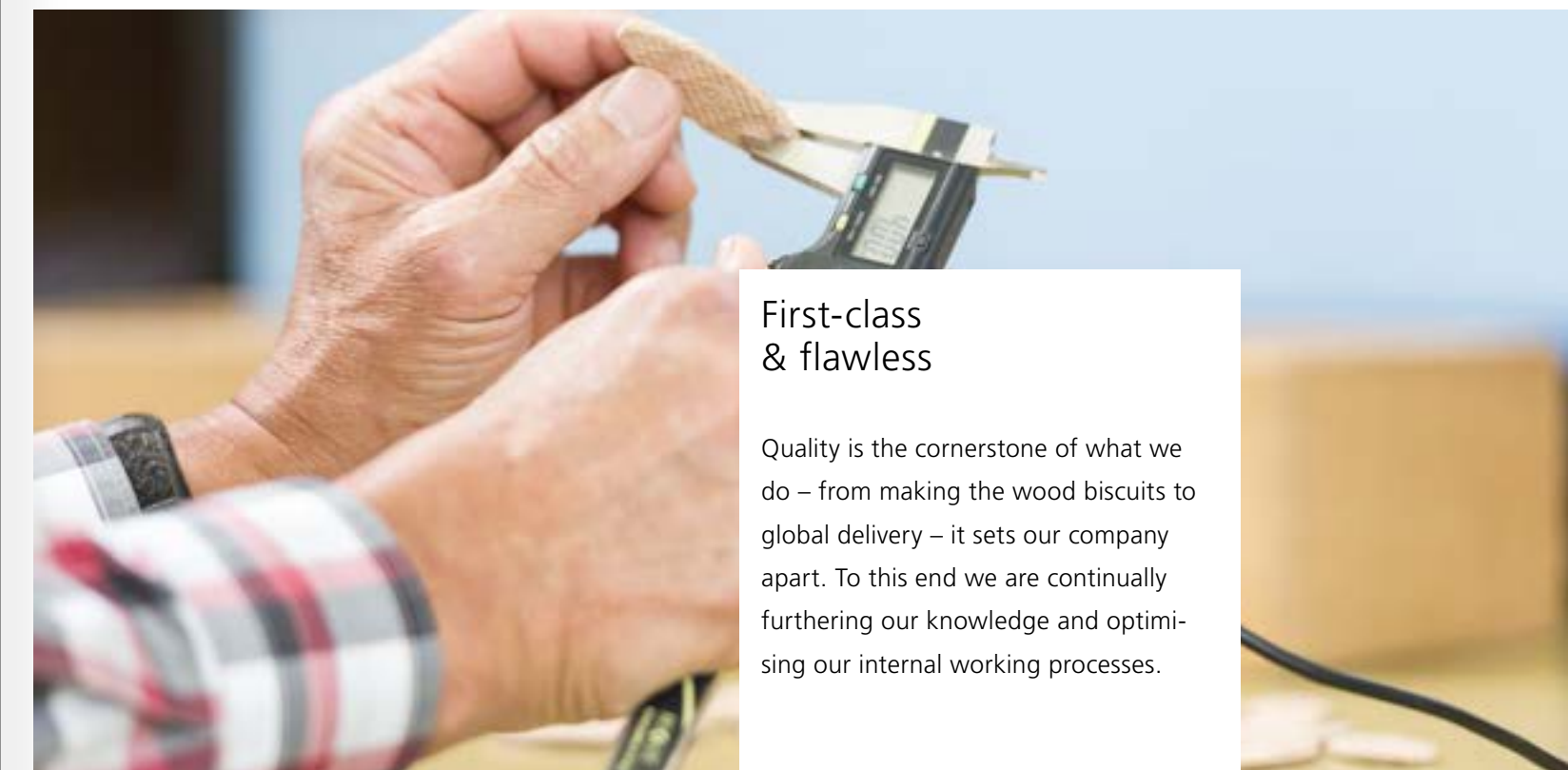
## Inventive & imaginative

We are connected by the desire to succeed and a passion for new tasks and inventions. We strive to remain recognised as a leader in innovation and to overcome technological limits time and again.



## First-class & flawless

Quality is the cornerstone of what we do – from making the wood biscuits to global delivery – it sets our company apart. To this end we are continually furthering our knowledge and optimising our internal working processes.



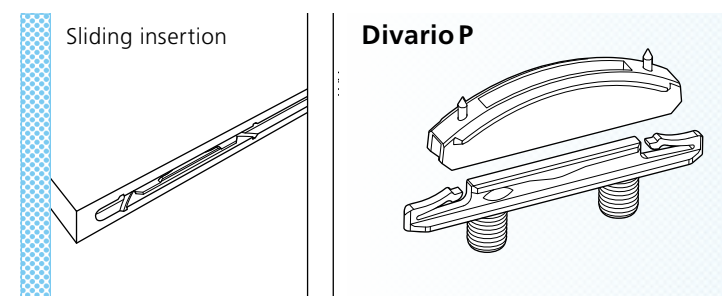
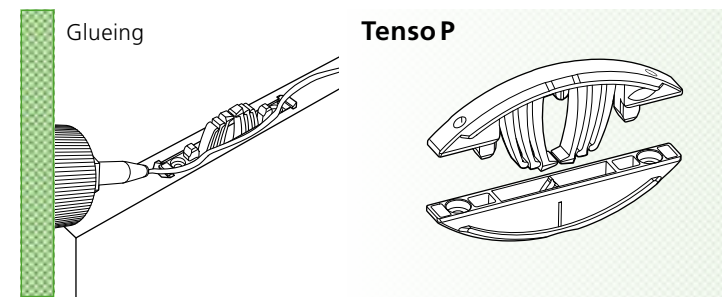
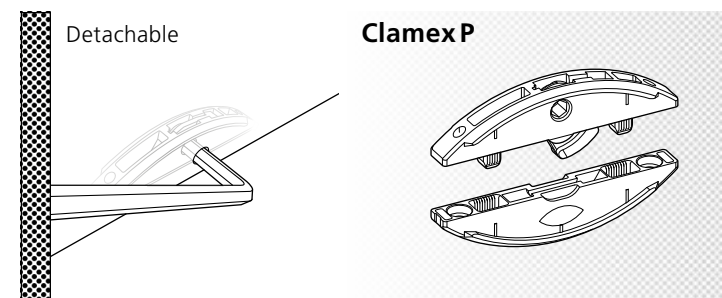
# Systems

- P-System
- Lamello System
- Drilling System

Overview

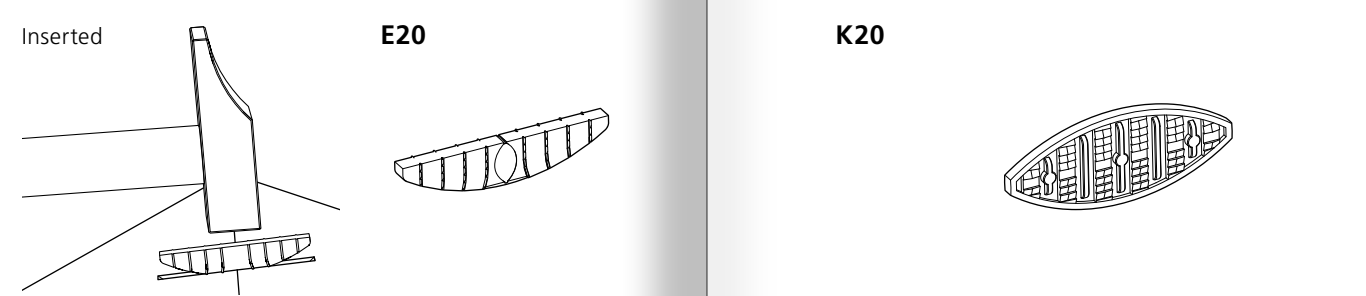
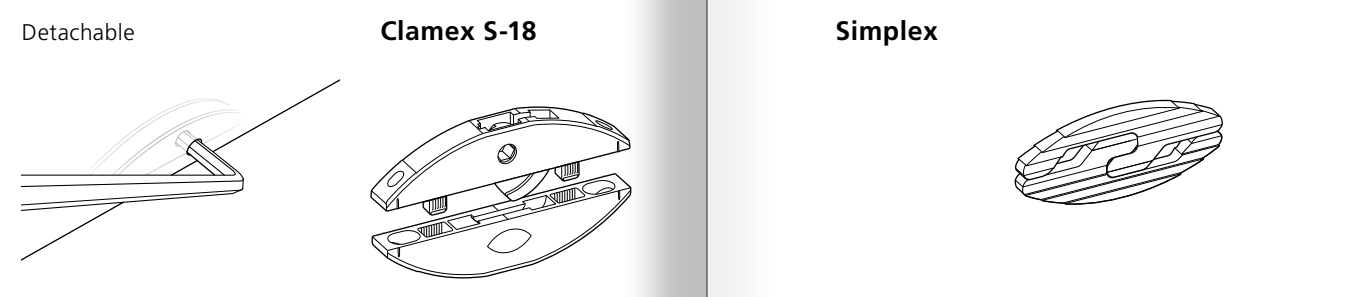
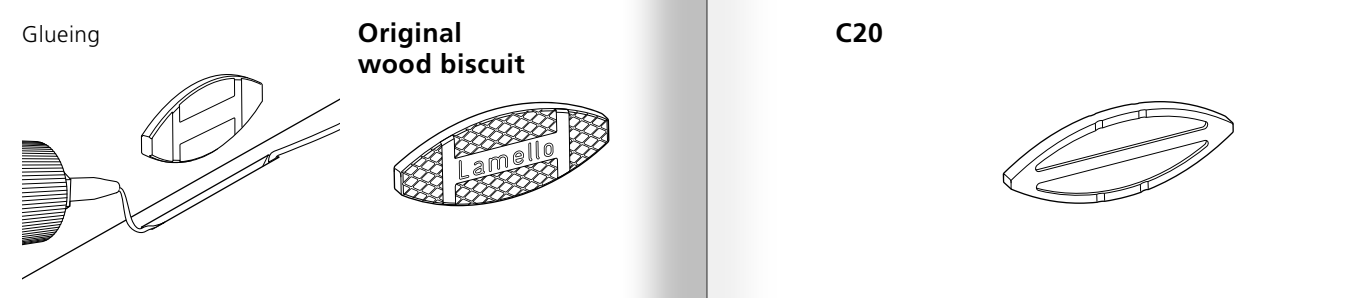
P-System	
Joining methods	Connector

With P-System groove cutter

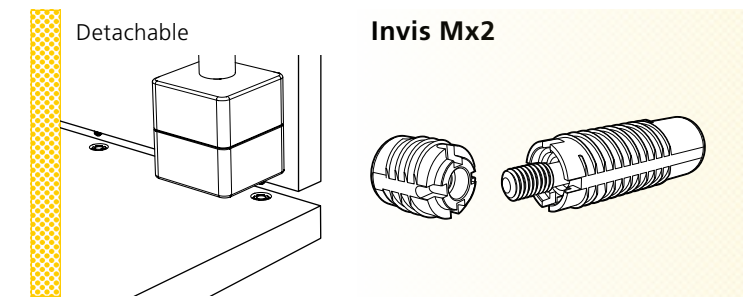
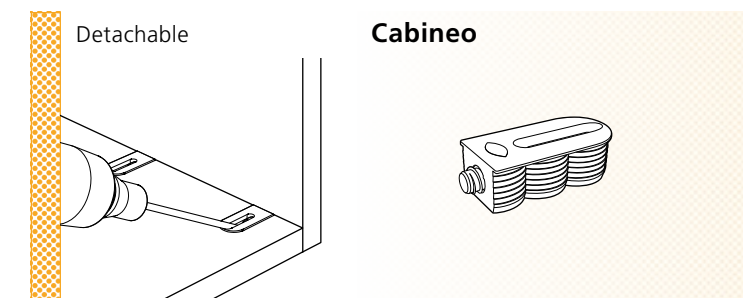


Lamello System	
Joining methods	Connector

With 4 mm Lamello System groove cutter



Drilling System	
Joining methods	Connector

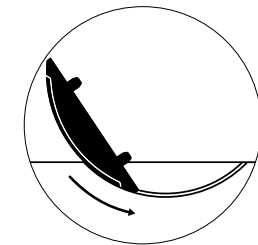


# P-System

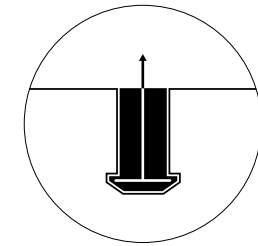
The time-saving joining system  
with form-locking anchoring



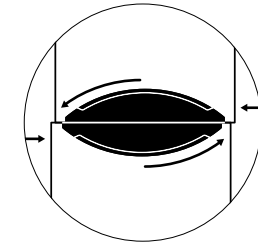
## Features



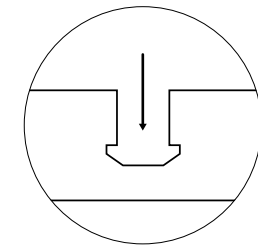
**Fast installation**  
Inserting instead of  
screwing or glueing



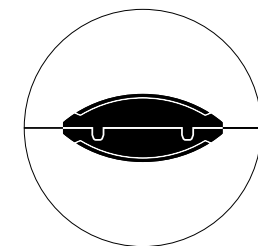
**Strong**  
Form-locking  
anchorage across  
large surface areas



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



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

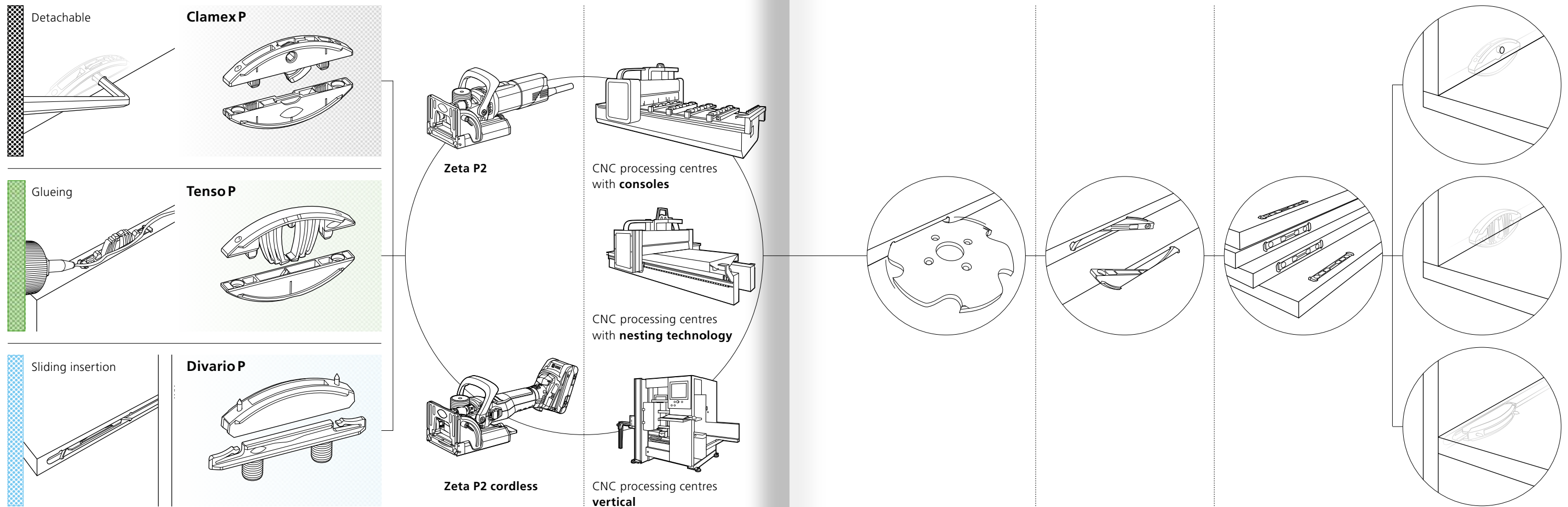


**No twisting**  
The positioning  
pins prevent  
twisting without  
additional dowels

# P-System

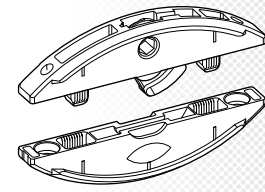
Overview

Joining methods	Connector	Machines		Sequence			
		<b>Power tool</b>	<b>CNC machines</b>	<b>1</b> Cut	<b>2</b> Insert the connector	<b>3</b> Deliver flat pack	<b>4</b> Connect the workpieces



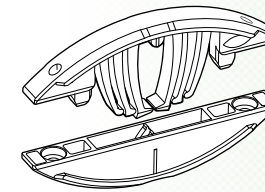
# Connectors

Features overview



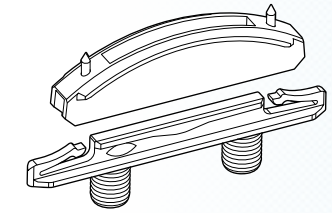
## Clamex P

Detachable furniture connector



## Tenso P

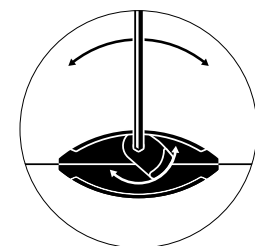
Self-clamping connector for glueing



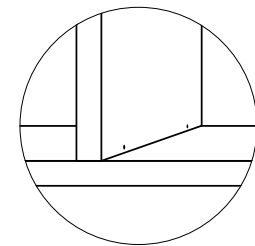
## Divario P

Self-clamping, invisible connector for slide insertion

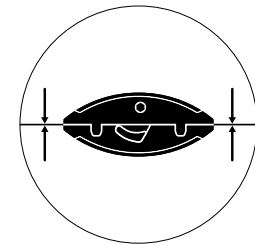
## Features



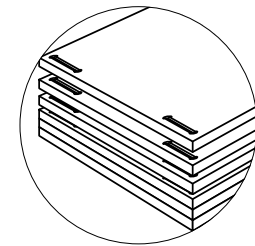
**Detachable**  
Open the connection time and time again with the rotating lever



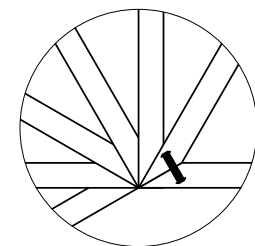
**Aesthetic**  
The small, hardly visible opening ( $\varnothing = 6\text{ mm}$ ) serves to close and open the connector



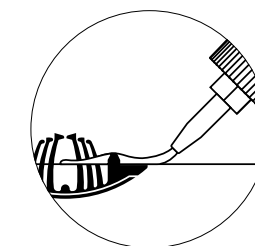
**High clamping force**  
Clamp and glue workpieces at any angle, ~ 80 kg or 170 lb



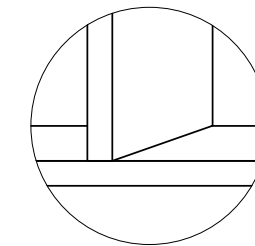
**Stackable**  
Workpieces with pre-installed P-System connectors are stackable for storage and transport



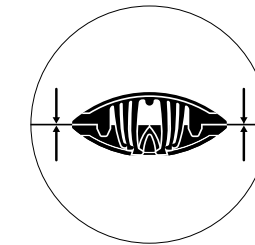
**Versatile**  
The shallow element depth allows for mitres from 22.5 – 180°, surface, corner and dividing panel connections



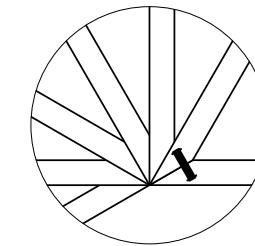
**Glueing**  
Fixed joints of two workpieces



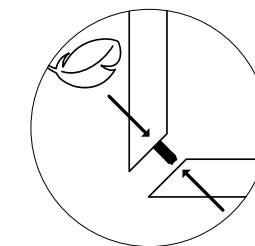
**Invisible**  
No visible connector



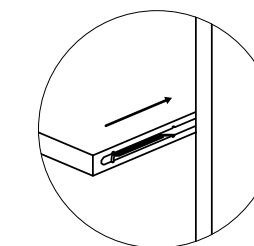
**High clamping force**  
Allows for perfect alignment and clamps the workpieces ~ 15 kg or 30 lb



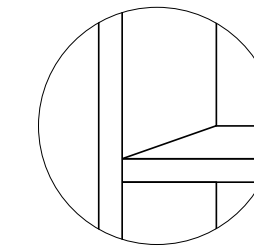
**Versatile**  
Simple glueing of mitre joints



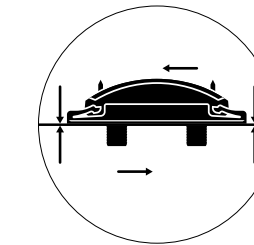
**Lower assembly force**  
In combination with the pretension clip, only a short force impulse is required to snap it into place



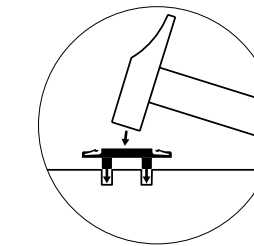
**Sliding insertion**  
Insertion between two fixed sides or shelves via a guiding groove



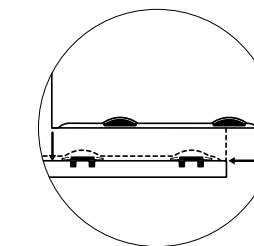
**Invisible**  
Guiding groove covers the connectors



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



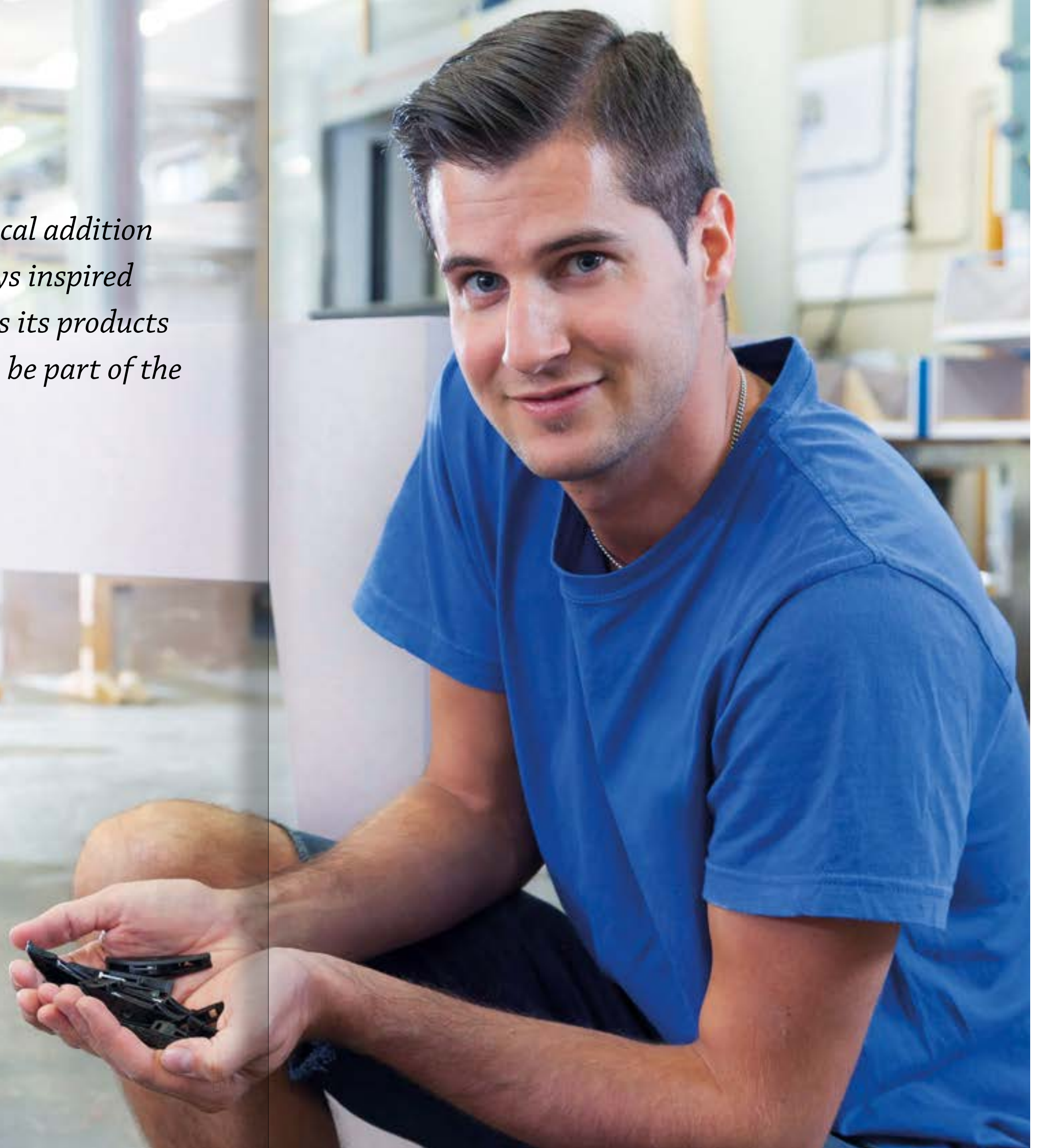
**Fast installation**  
Quick installation of the connectors without glue after transport



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

*« The Clamex P-14/10 Flexus is a logical addition to the P-System range. We are always inspired anew by how reliably Lamello tailors its products to customer needs, and are happy to be part of the Lamello family. »*

Hannes Kofler, Owner and Managing Director, Joinery workshop Kofler, Italy



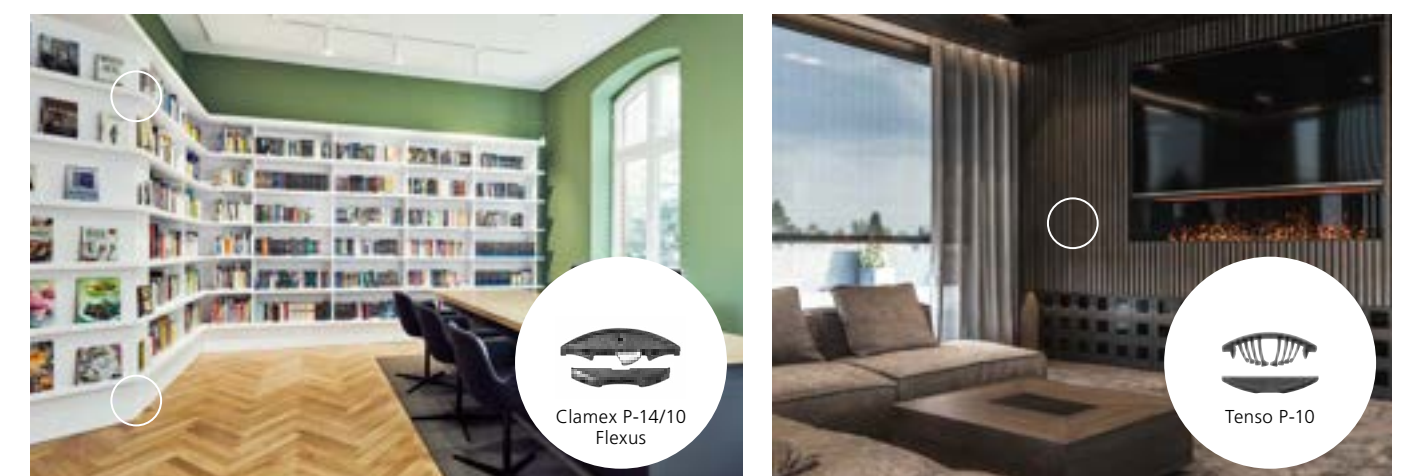
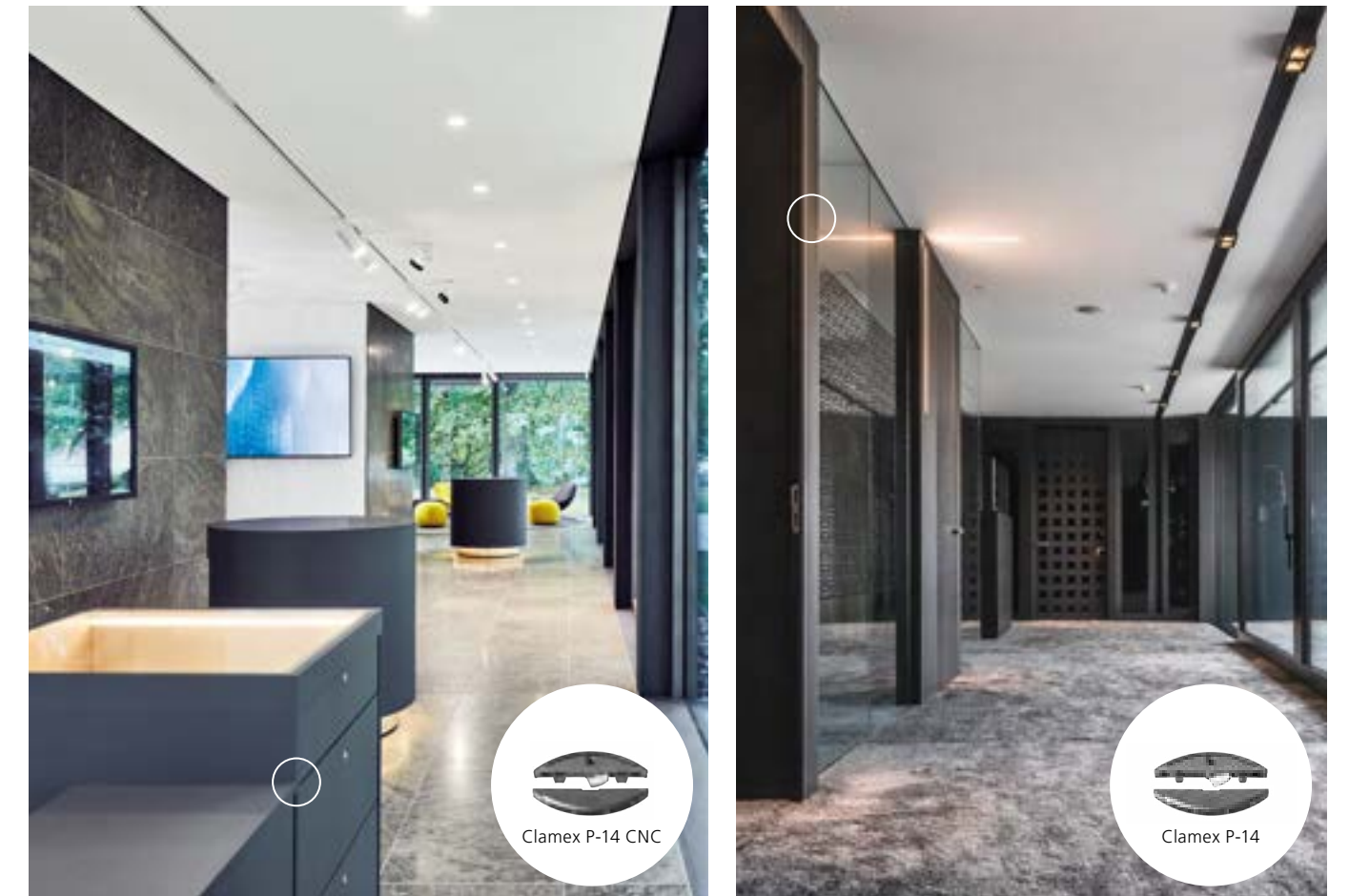
# P-System

Applications

## Furniture manufacturing



## Interior fitting





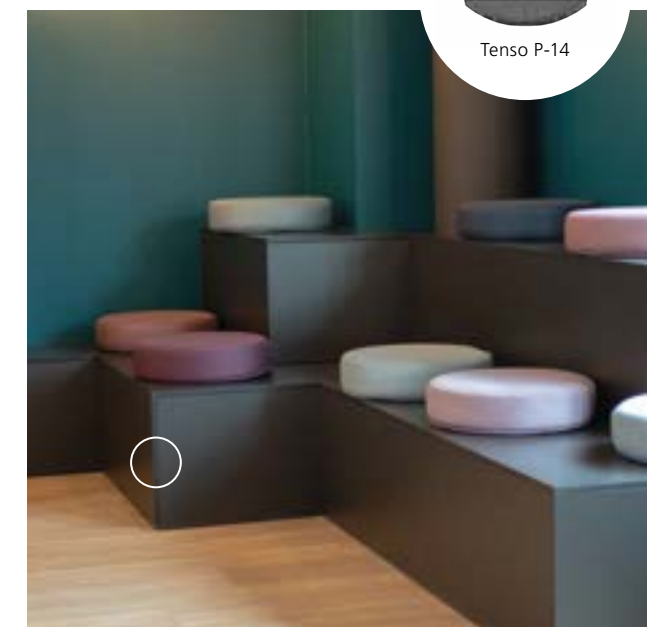
# P-System

Applications

Kitchen manufacturing



Commercial joinery



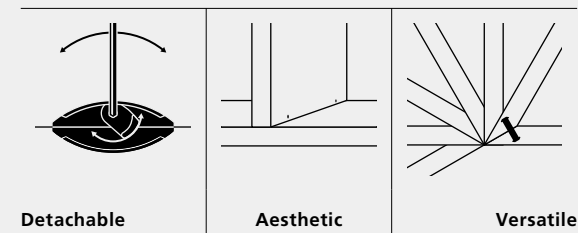
Shop fitting

# 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.

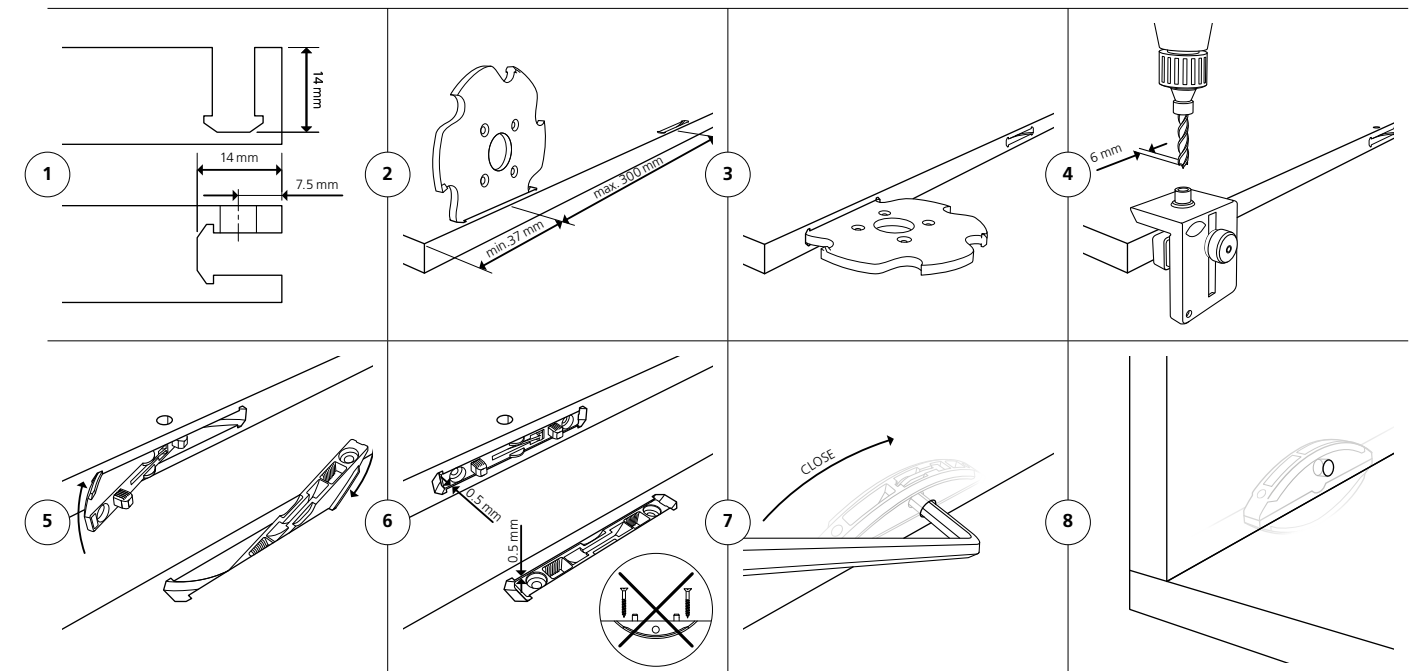
Clamex P-14 eliminates the need for glue, allows aesthetic joints at all angles and is ideal for permanently joined or detachable mitres. Clamex P-14 is used on mitre joints from 18 mm material thickness and in butt joints from 15 mm.

## Articles



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

## Function



## Technical data

Joining methods	Size	64 x 27 x 9.7 mm		
	Cutter	Ø 100.4 x 7 x 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 900 <sup>1</sup>	Particle board 800 <sup>1</sup>	Beech 1000 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

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

Experience the connector live and receive comprehensive product information!

90° and 45° cover caps are available in a variety of colours **PAGE 71** | See **PAGE 66** for technical specifications

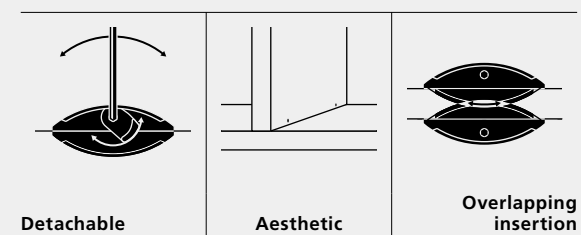
<sup>1</sup> See comment on load limits on **PAGE 195**

# 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.

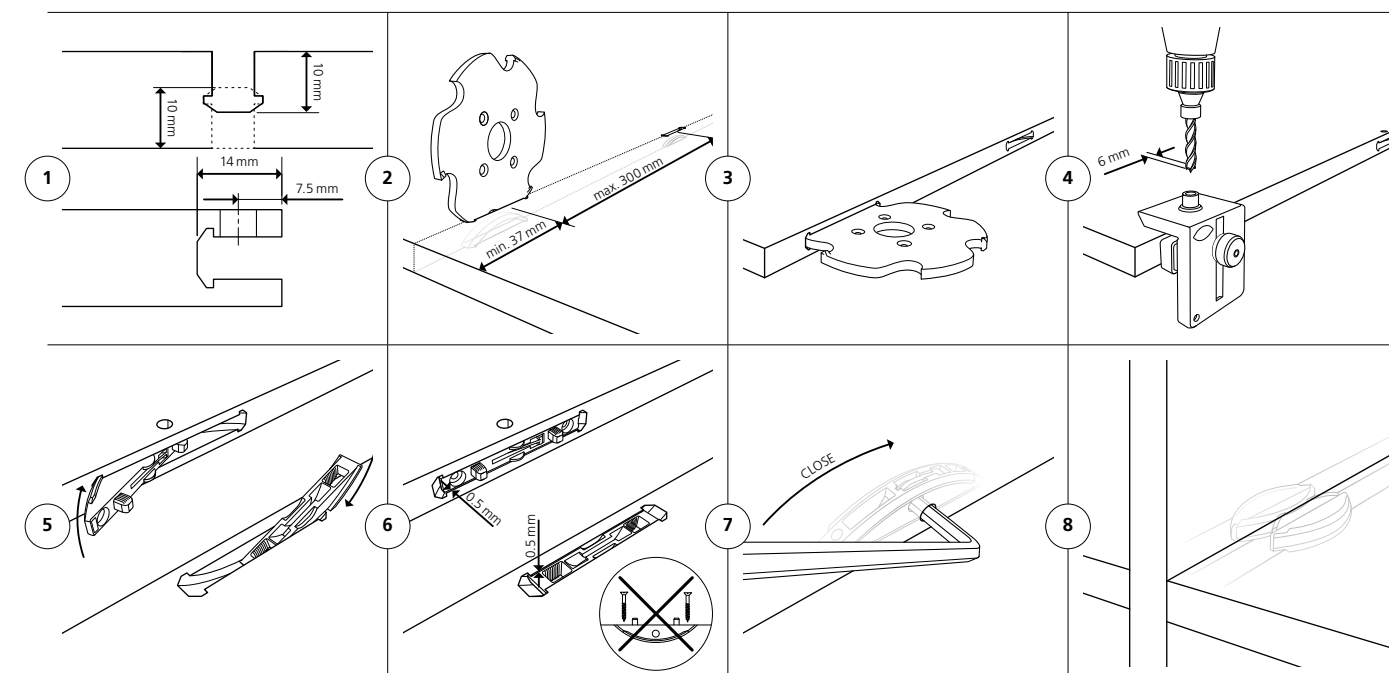
The connector for divisions has two installation depths and is used when two shelves are attached to the same dividing panel at the same height. Due to the reduced installation depth of 10 mm, the minimal thickness for the division is 16 mm.

## Articles



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

## Function



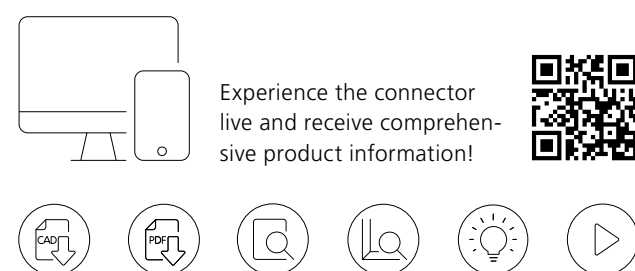
## Technical data

Joining methods	Size	Tensile strength (N)		
	64 × 13.5 × 9.7 mm 52 × 7.5 × 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. ± 1 mm/radial ± 1 mm		
	Up to	MDF 800 <sup>1</sup>	Particle board 600 <sup>1</sup>	Beech 900 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

90° and 45° cover caps are available in a variety of colours **PAGE 71** | See **PAGE 66** for technical specifications

<sup>1</sup> See comment on load limits on **PAGE 195**

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

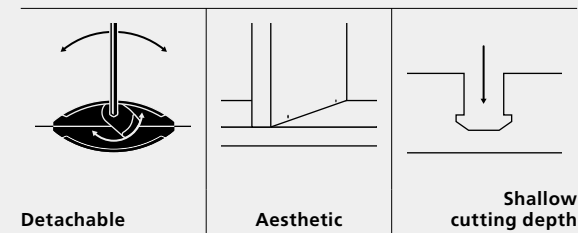


# Clamex P-10

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.

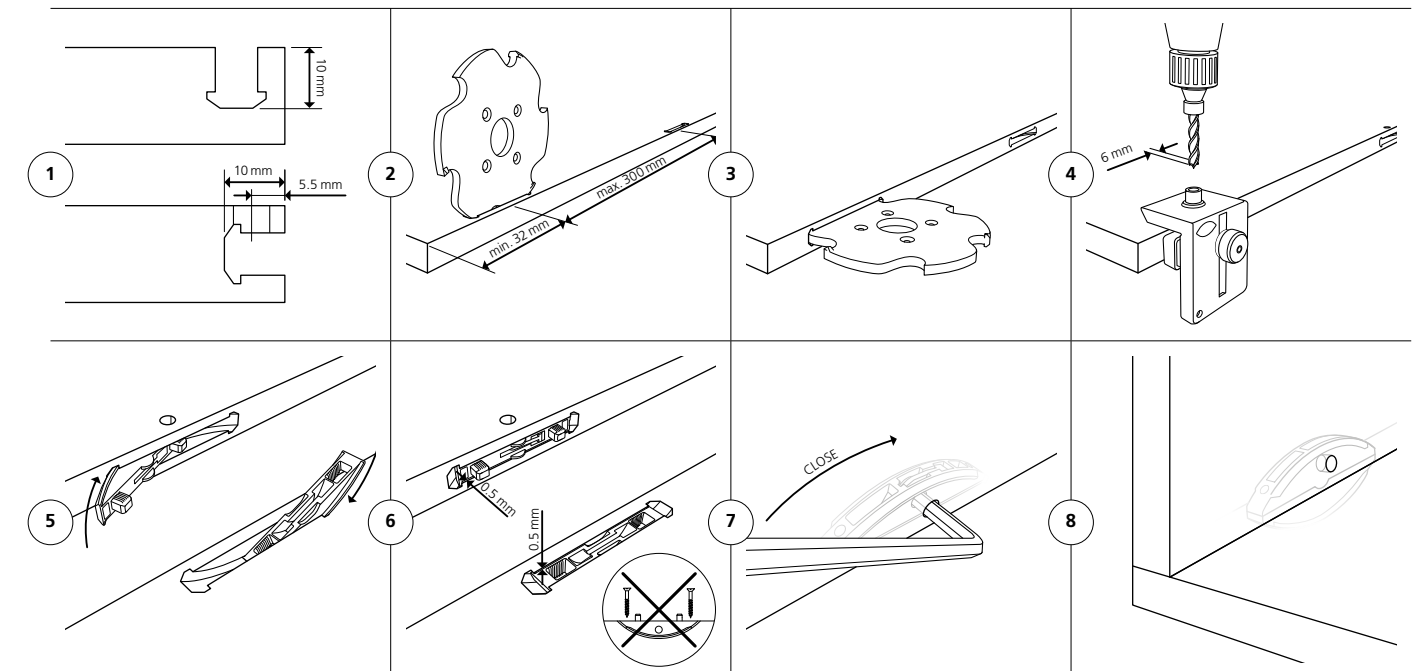
Clamex P-10 is used on mitre joints from 15 mm material thickness and in butt joints from 12 mm.

## Articles

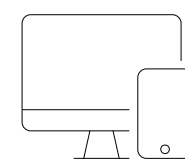


Clamex P-10	Art. No.
80 pairs	145372
300 pairs	145373
1000 pairs	145374
2000 pieces element without lever	145358

## Function



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



Experience the connector live and receive comprehensive product information!



## Technical data

Joining methods	Size	52 × 19 × 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. ± 0.5 mm/radial ± 0.5 mm		
	Tensile strength (N) Up to	MDF 600 <sup>1</sup>	Particle board 600 <sup>1</sup>	Beech 900 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

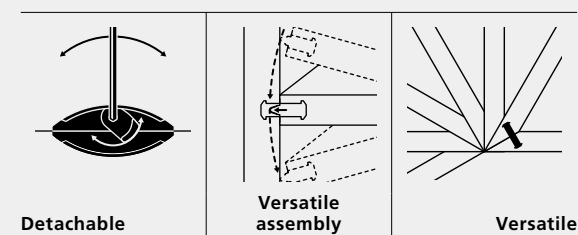
See PAGE 66 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# 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.

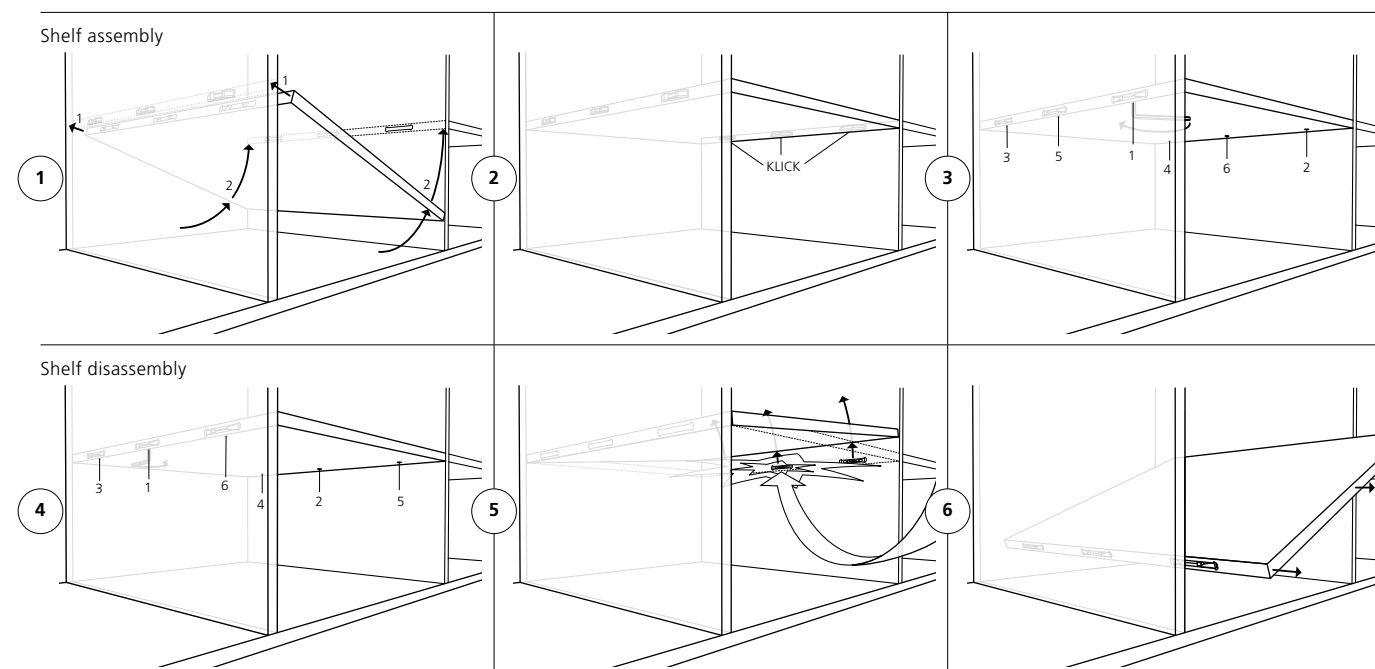
Clamex P-14 is used in mitre joints from 18 mm material thickness and in butt joints from 12 mm.

## Articles

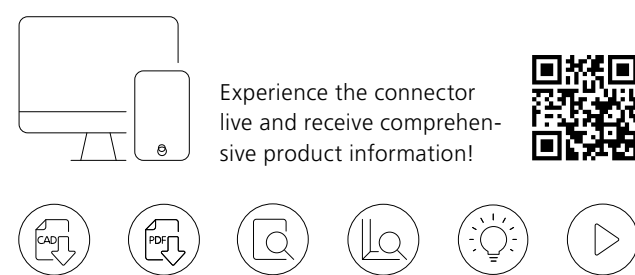


Clamex P-14/10 Flexus	Art. No.
80 pairs	145315
300 pairs	145316
1000 pairs	145317
2000 pieces element with lever	145318
2000 pieces element without lever	145369

## Function



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



Experience the connector live and receive comprehensive product information!

## Technical data

Joining methods	Size	64 × 13.5 × 9.7 mm 52 × 7.5 × 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) Up to	MDF 720 <sup>1</sup>	Particle board 600 <sup>1</sup>	Beech 810 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

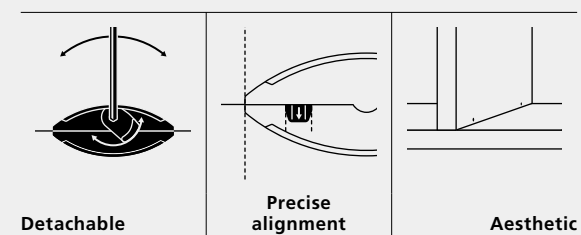
See PAGE 67 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# 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

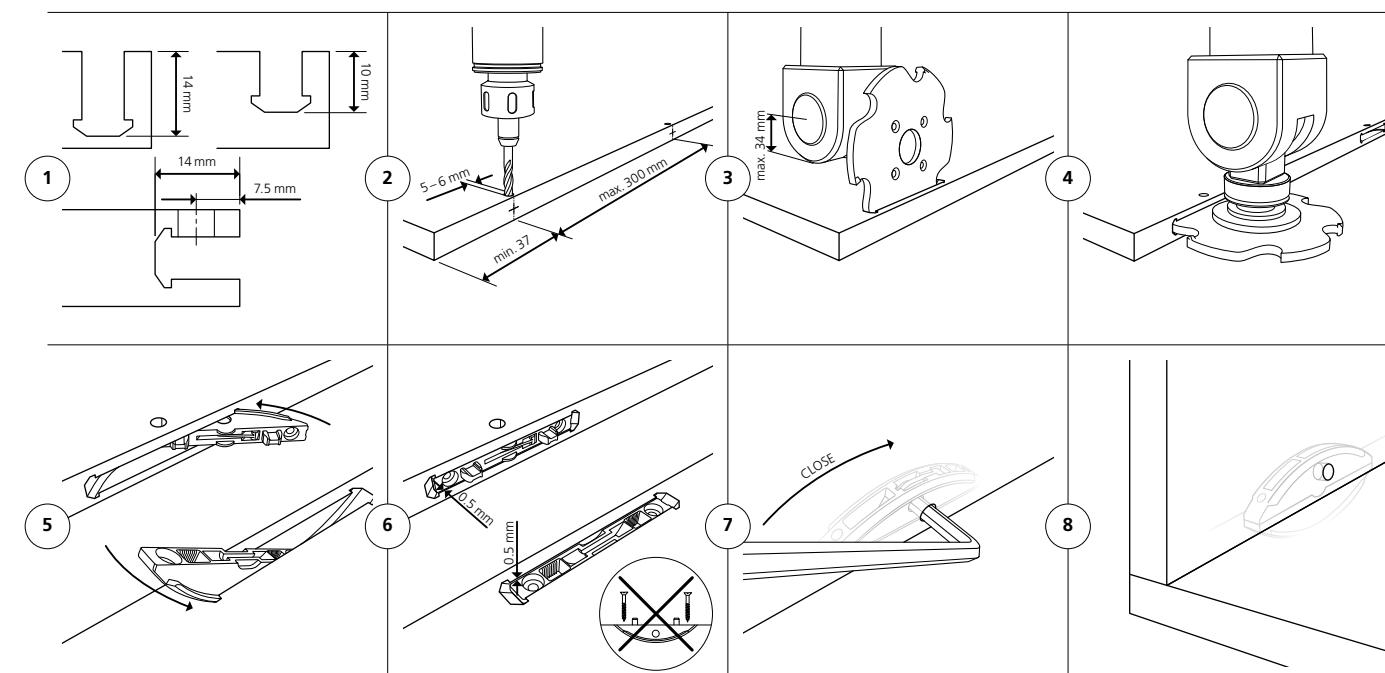
	<b>Clamex P-14 CNC</b>	Art. No.
	2000 pieces element with lever	<b>145388</b>
	<b>Clamex P-14</b>	Art. No.
	2000 pieces element without lever	<b>145339</b>
	<b>Clamex P-10</b>	Art. No.
	2000 pieces element without lever	<b>145358</b>
	<b>Clamex P-10 Medius</b>	Art. No.
	2000 pieces element without lever	<b>145369</b>

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

Experience the connector live and receive comprehensive product information!

## Function



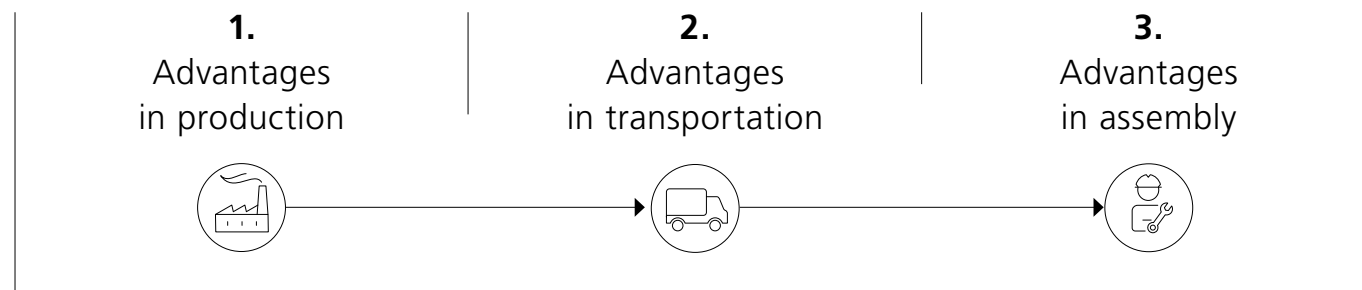
## Technical data

<b>Joining methods</b>	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 Up to		Particle board, MDF, plywood, softwood, hardwood etc.

\* See PAGE 67 for technical specifications

# Advantages of the Clamex P

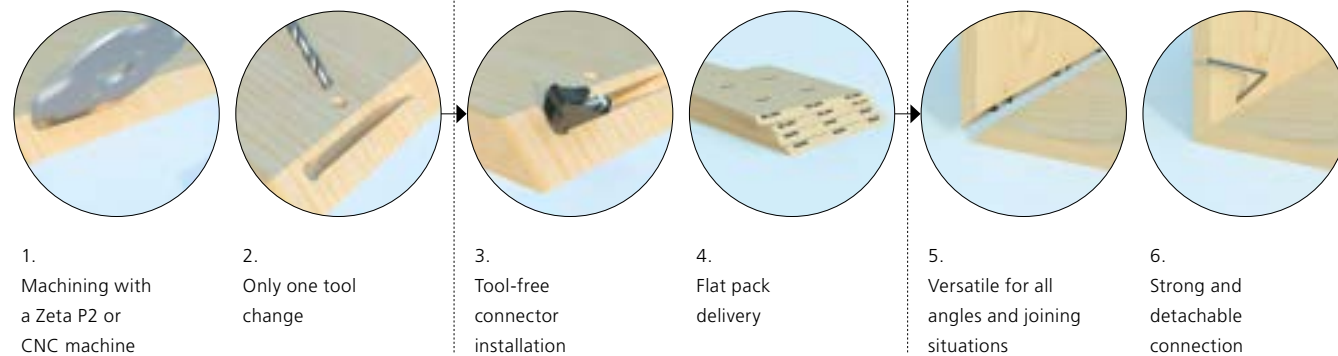
Detachable furniture connector



- 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. »*

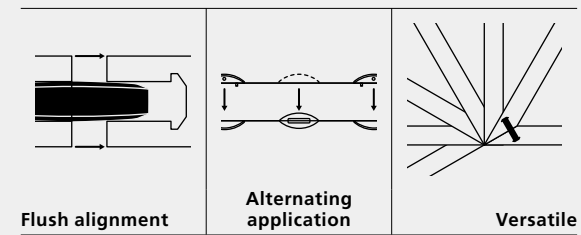
Markus Fust, Managing Director,  
Fust Schreinerei AG, Wil, Switzerland



# 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.

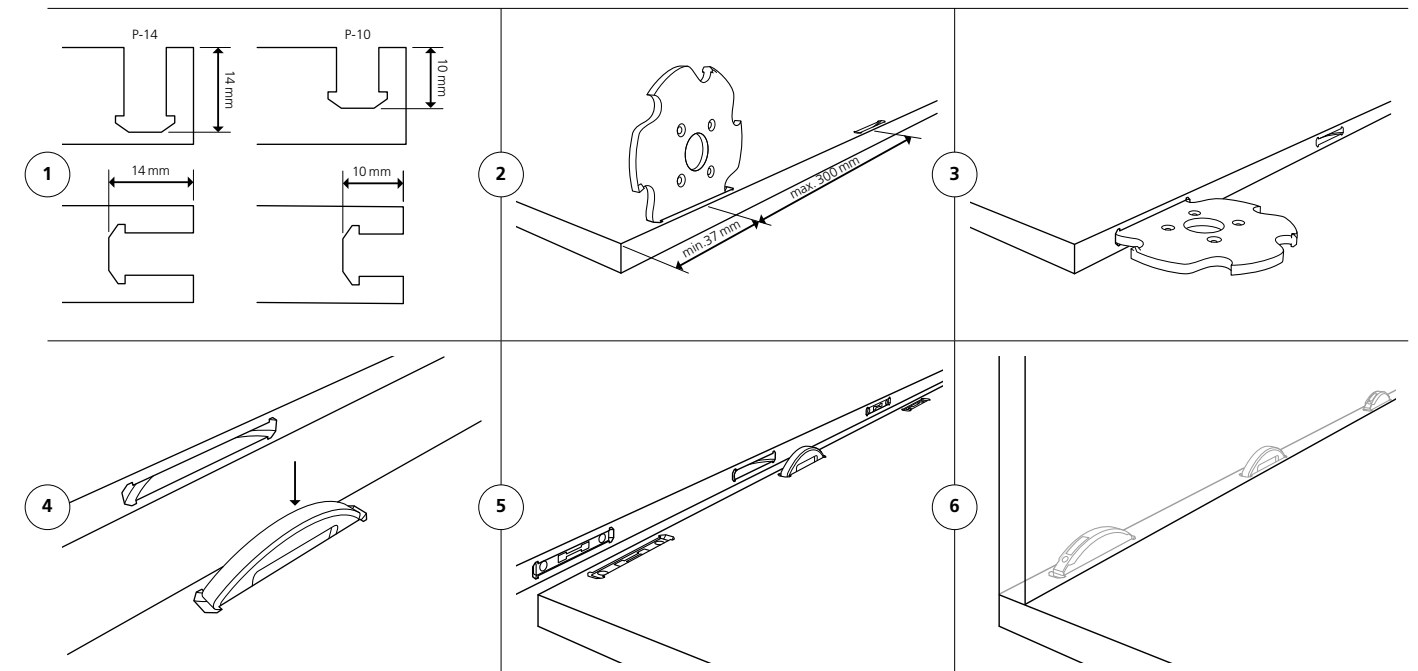
Bisco P-14 is used in combination with Clamex P-14 or Tenso P-14; and Bisco P-10 with the same connectors in size P-10.

## Articles

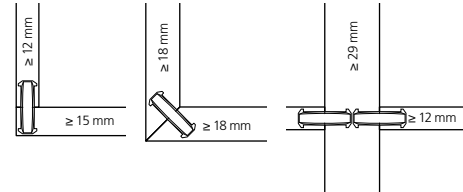
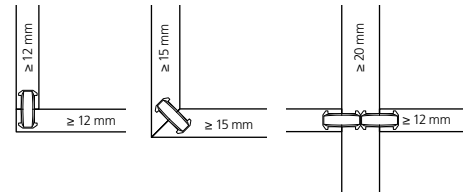
	<b>Bisco P-14</b>	Art. No.
	80 pieces	<b>145301</b>
	300 pieces	<b>145302</b>
	1000 pieces	<b>145303</b>

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

## Function


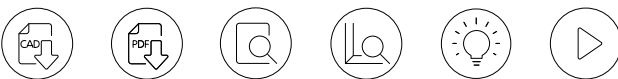


## Technical data

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*
Joining methods	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](http://www.lamello)

Experience the connector live and receive comprehensive product information!

\* See PAGE 68 for technical specifications

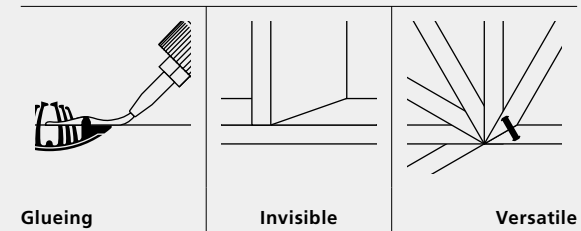


# Tenso P-14

Self-clamping connector for glueing materials from 16 mm thickness



## Features

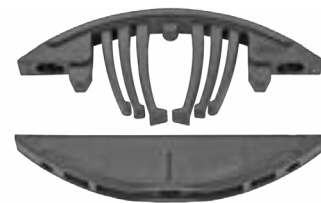


Tenso P-14 is a self-clamping glueing aid and is anchored in the form-locking P-System groove within seconds.

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

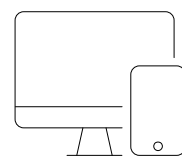


Tenso P-14	Art. No.
80 pairs	<b>145415</b>
80 pairs, with preload clip	<b>145415S</b>
300 pairs	<b>145425</b>
300 pairs, with preload clip	<b>145425S</b>
1000 pairs	<b>145435</b>
2000 pieces element with spring	<b>145440</b>
2000 pieces element without spring	<b>145441</b>



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

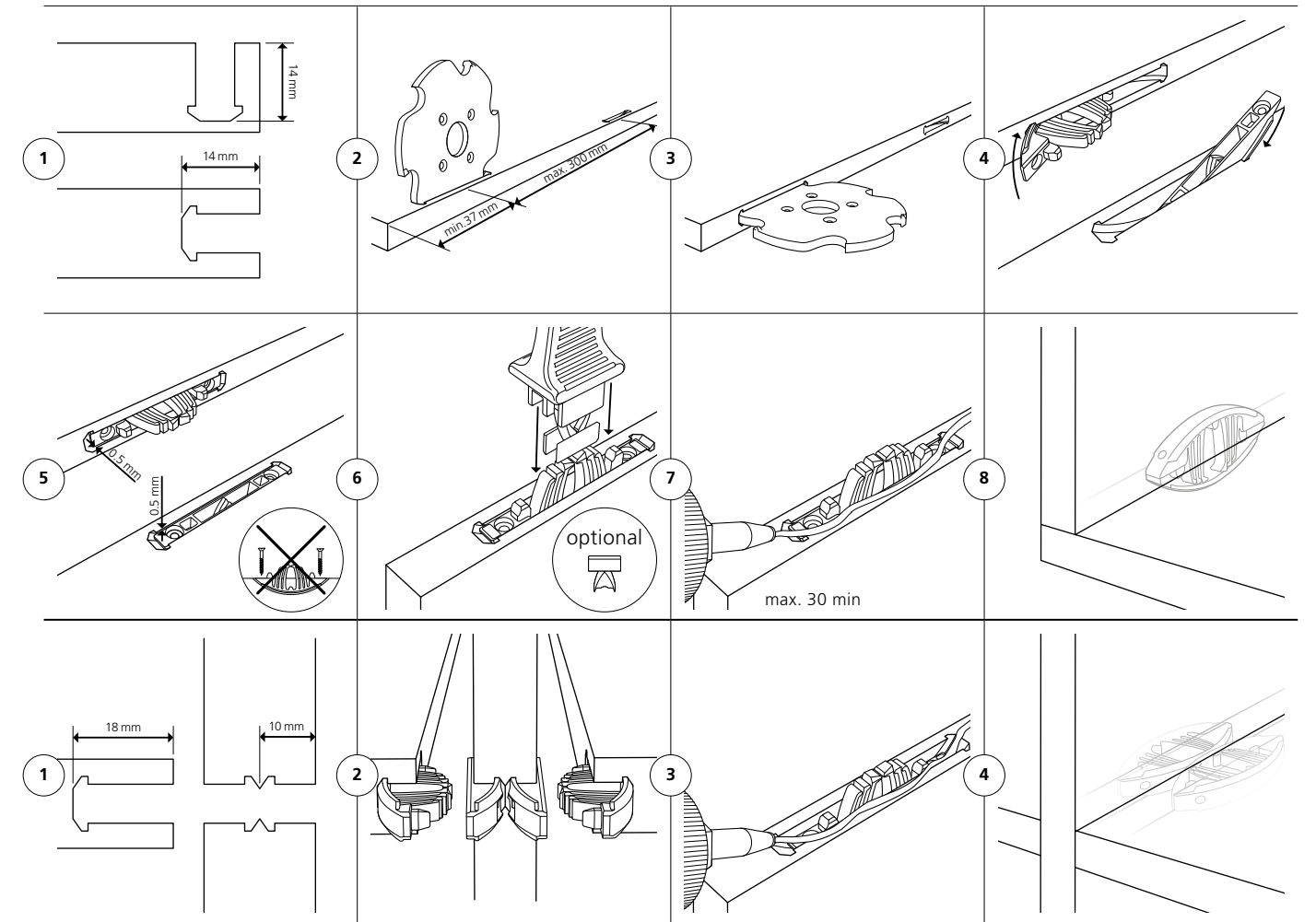
[www.lamello](http://www.lamello)



Experience the connector live and receive comprehensive product information!

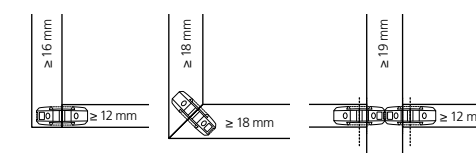


## Function



## Technical data

### Joining methods



Important: The aligning element Bisco P-14 is ideal to dry-assemble the joints before glueing

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.

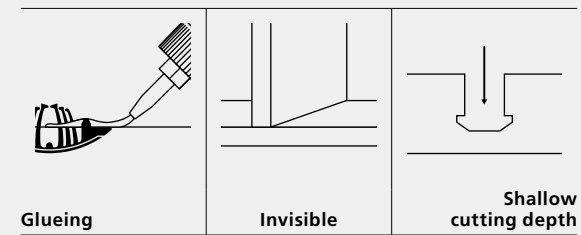
See **PAGE 69** for technical specifications

# Tenso P-10

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



## Features

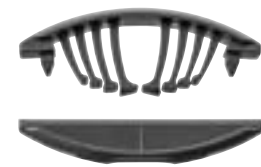


Tenso P-10 is a self-clamping connector to glue and is anchored in the form-locking P-System groove within seconds.

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

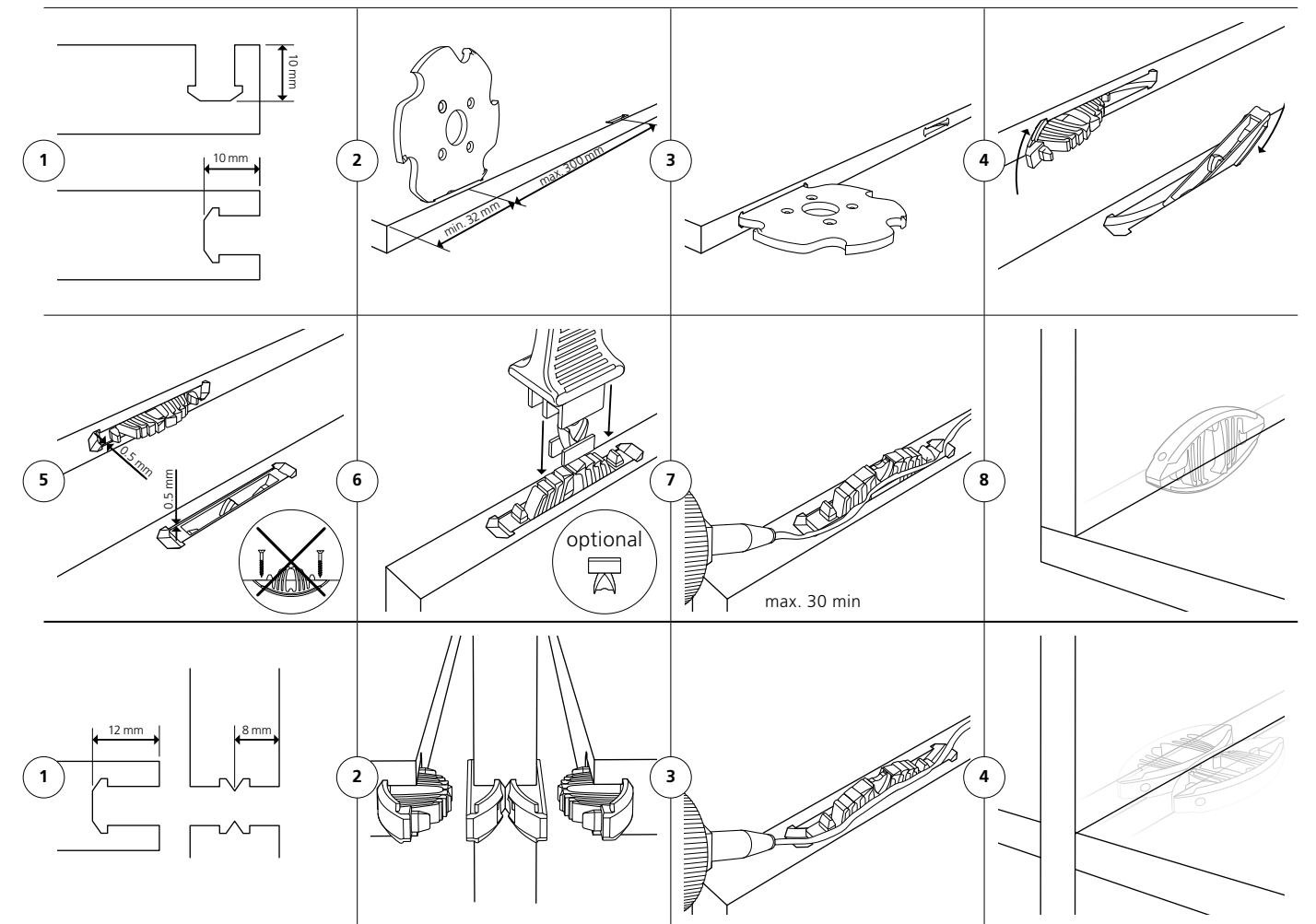


Tenso P-10	Art. No.
80 pairs, with preload clip	<b>145418</b>
300 pairs, with preload clip	<b>145428</b>
1000 pairs, with preload clip	<b>145438</b>
2000 pieces element with spring	<b>145442</b>
2000 Spieces element without spring	<b>145443</b>



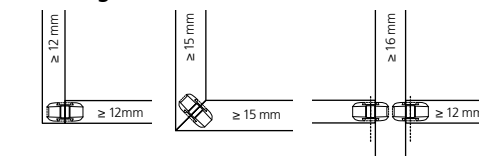
Tenso P-10 preload clip	Art. No.
2000 pieces	<b>145445</b>

## Function



## Technical data

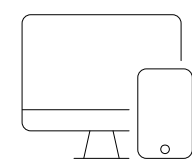
### Joining methods



Important: The aligning element Bisco P-10 is ideal to dry-assemble the joints before glueing

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](http://www.lamello)



Experience the connector live and receive comprehensive product information!

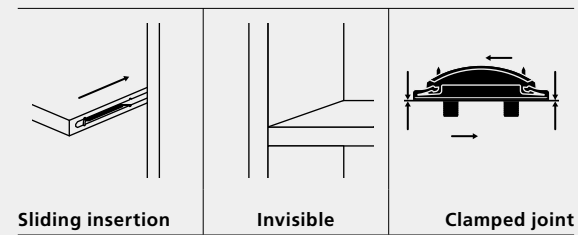


# Divario P-18

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

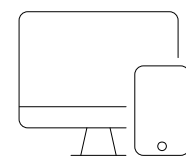


Divario P-18	Art. No.
80 pairs	145550
300 pairs	145560
1000 pairs	145570
2000 pieces, element for P-System groove	145520
2000 pieces, element for drill holes	145540



Divario P-18 Installation tool	Art. No.
For fixing the Divario in the workpiece	125500

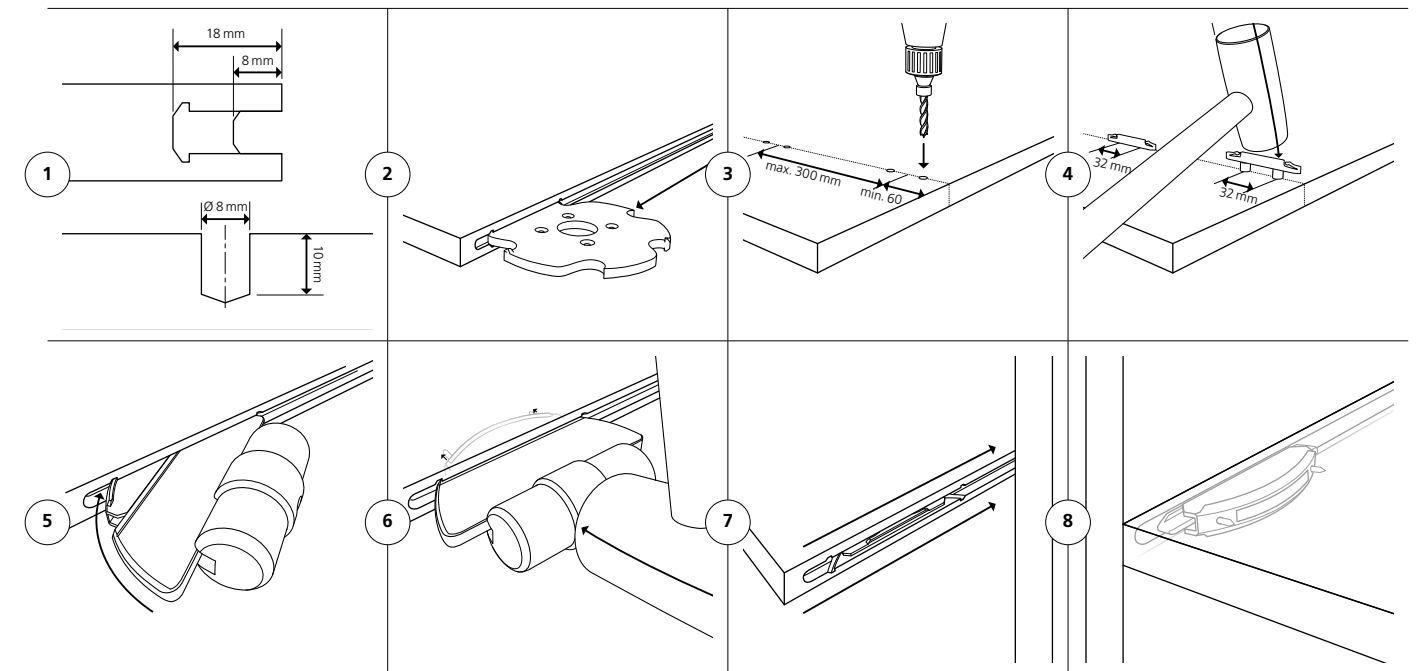
[www.lamello](http://www.lamello)



Experience the connector live and receive comprehensive product information!



## Function



## Technical data

Joining methods	Element with P-System groove	65 x 16 x 9.7 mm
	Element with drill holes	Ø8 x 10 mm, distance 32 mm
	Cutter	Ø100.4 x 7 x Ø22 mm
	Material connector	Fiberglass reinforced plastic
	Installation tolerance	Long. ± 1 mm/radial ± 0 mm
	Load limits per connector (N)	(mm) 19 22 25 30
	Up to	MDF 600 <sup>1</sup> 700 <sup>1</sup> 800 <sup>1</sup> 1000 <sup>1</sup>
		Particle board 500 <sup>1</sup> 600 <sup>1</sup> 700 <sup>1</sup> 1000 <sup>1</sup>
		Beech 1700 <sup>1</sup> 2000 <sup>1</sup> 2000 <sup>1</sup> 2000 <sup>1</sup>
		Spruce 800 <sup>1</sup> 900 <sup>1</sup> 1300 <sup>1</sup> 1400 <sup>1</sup>
	Tensile strength (N)	All materials 600 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.

See PAGE 69 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# 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

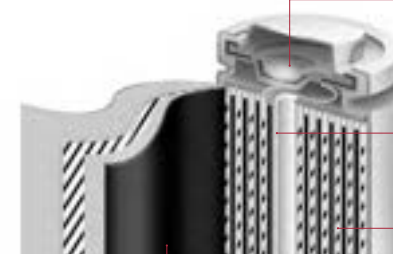
[www.cordless-alliance-system.com](http://www.cordless-alliance-system.com)



## 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



Connection cap made of 50-percent thicker material for good thermal dissipation

Multiple power connectors for internal wiring provide continuously high power output

Reinforced current collectors for low heat losses

More active material in reactive surface for high capacity in a compact size

## 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

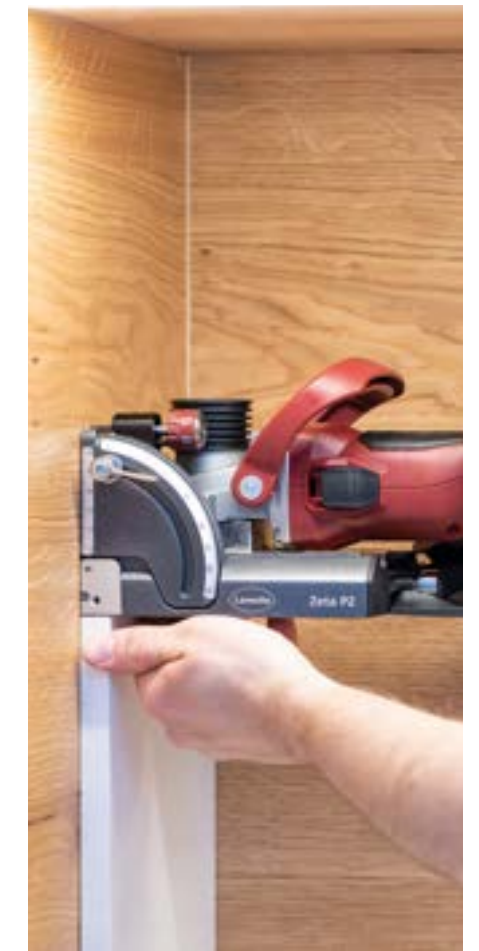
## Adapting furniture



## Terrace floors



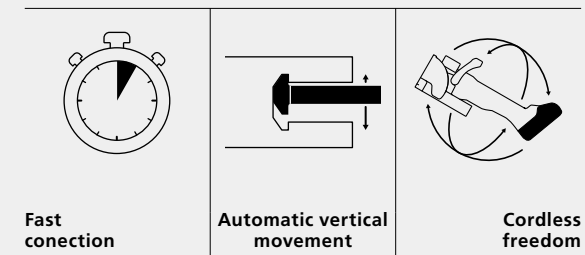
- Join components outdoors without access to a power connection
- No walkways between the processing site and the installation site, and no additional handling of the cable reel



# 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 **101801SD**

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

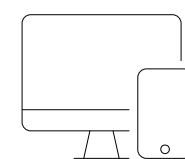


Kit contains

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. 101801SD

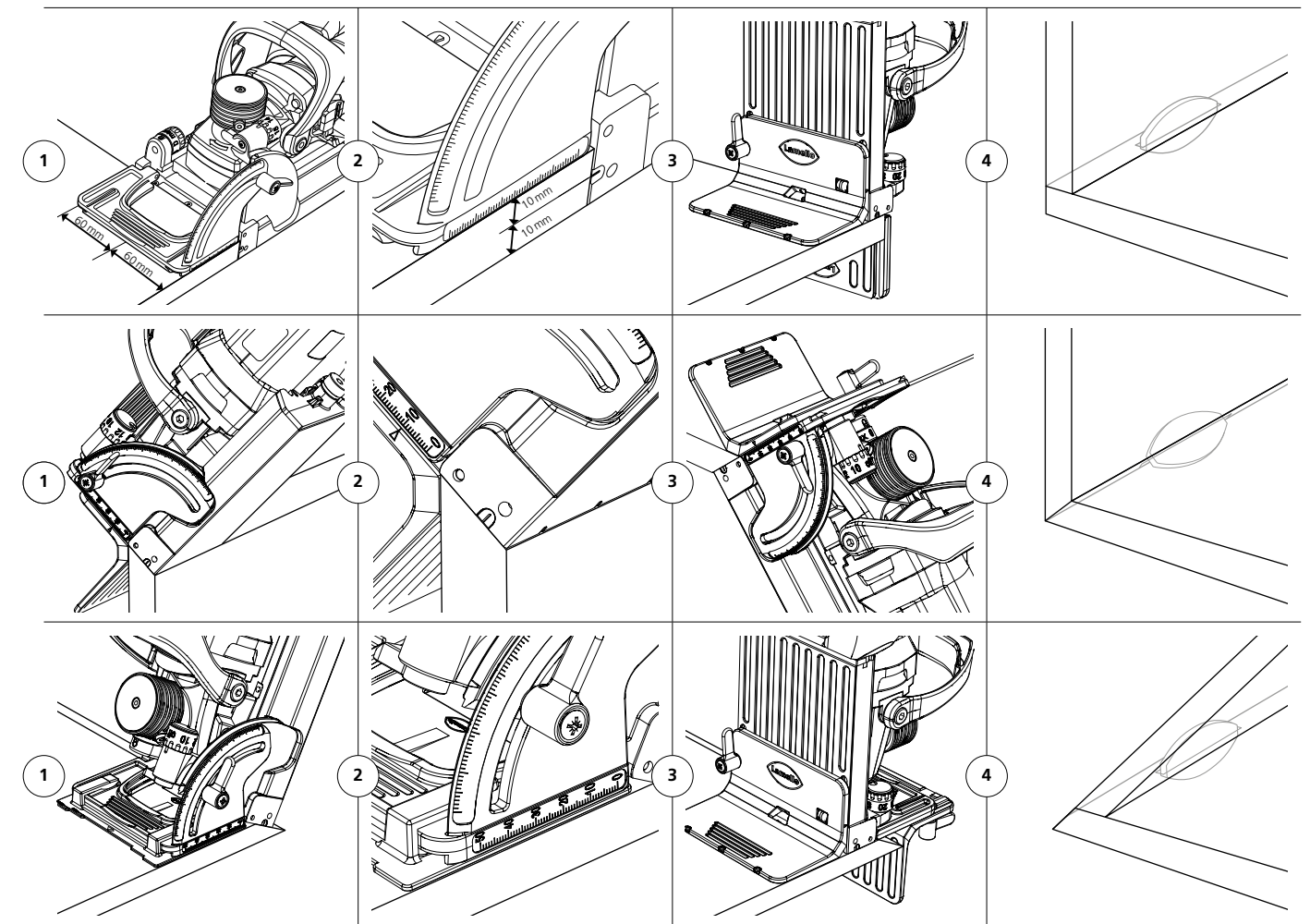
[www.lamello](http://www.lamello)



Experience Zeta P2 cordless live and receive comprehensive product information!



## Function



## Technical data

Battery voltage	18 V	Groove width	7/10 mm
Speed	9 000 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

<b>Fast connection</b>	<b>Automatic vertical movement</b>	<b>Numerous machining options</b>

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

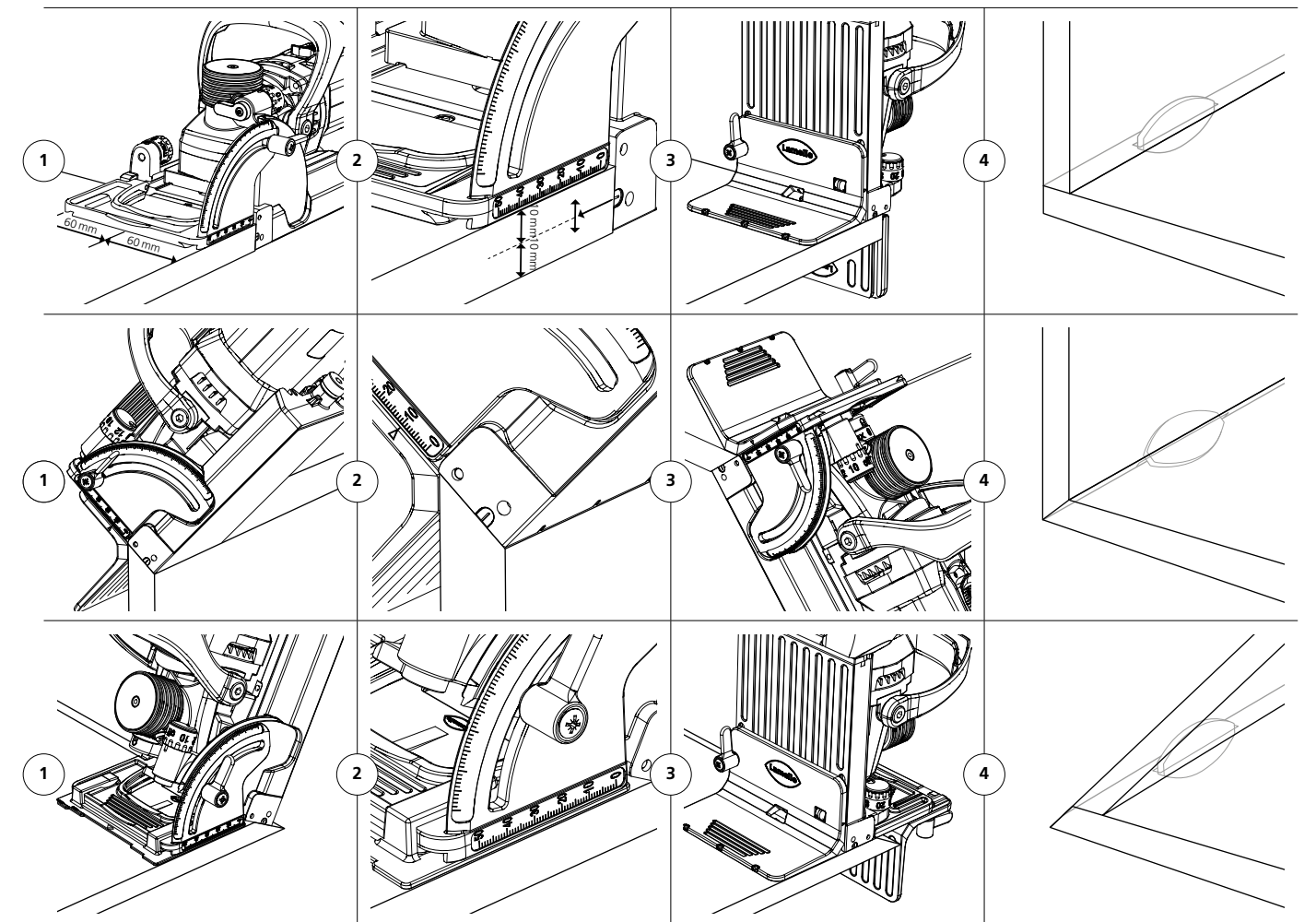


<b>Zeta P2</b>	Art. No.
With P-System groove cutter HW (carbide) in Systainer	<b>101403S</b>
With P-System groove cutter DP (diamond) in Systainer	<b>101403SD</b>



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

## Function



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

Experience Zeta P2 live and receive comprehensive product information!

## 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



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



**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),**  
**Ø 100.4 × 7 × Ø 22 mm** Art. No. **132140**  
Z3, 4 NL for Zeta P2



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



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

## Batteries



Art. No. **313013**  
Battery pack 18 V, LiHD 4.0 Ah



Art. No. **313015**  
Battery pack 18 V, LiHD 5.5 Ah



Art. No. **123100**  
Battery charger ASC 55

# 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
<b>Ready in</b>	<b>50 s</b>

... 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
<b>Ready in</b>	<b>40 s</b>



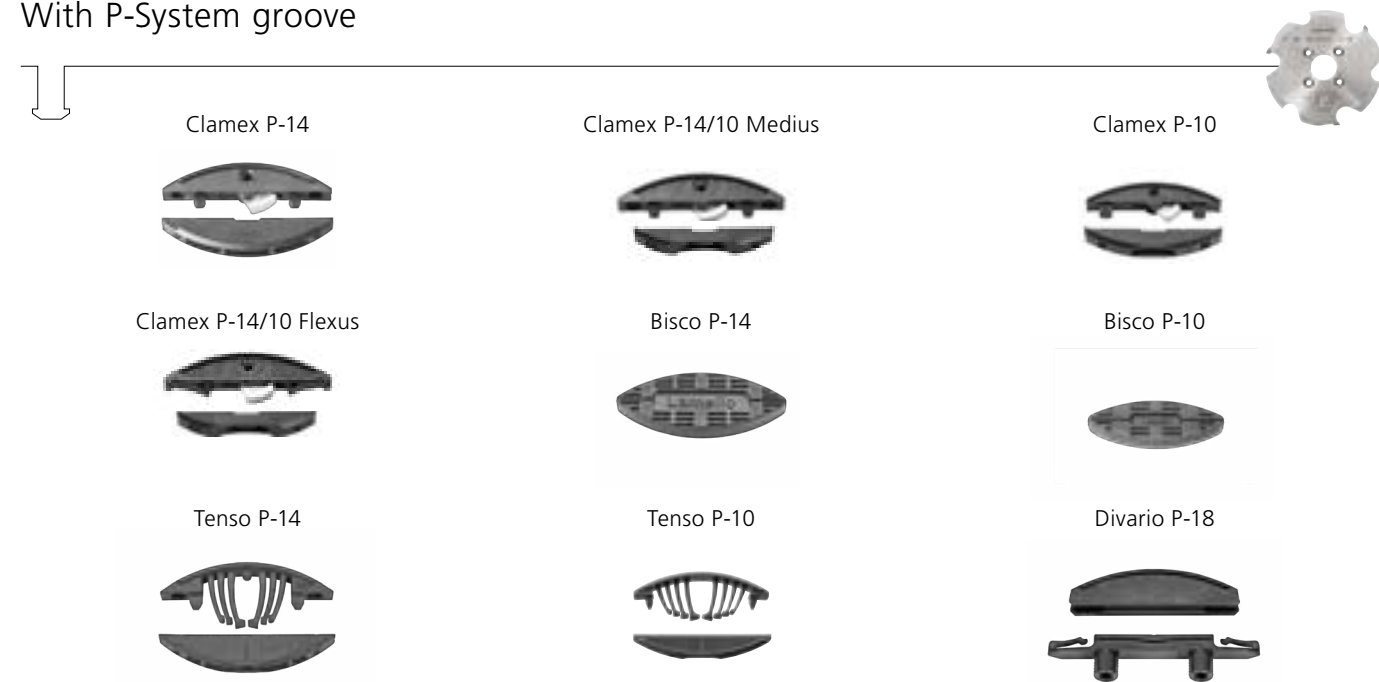


Versatile use with many different connecting elements.

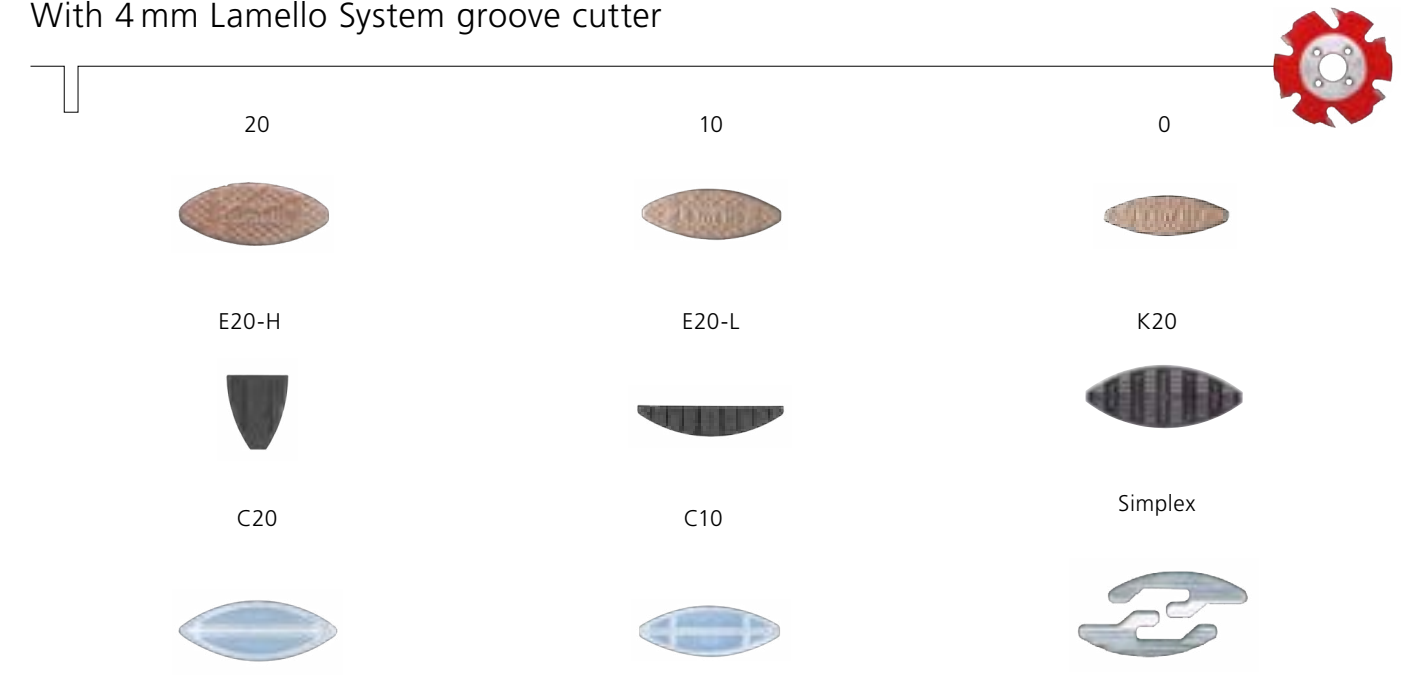
With the Zeta P2, you can quickly and easily connect parts with a range of angles and joining situations. Suitable for individual pieces of furniture as well as prototypes and line production.



### With P-System groove



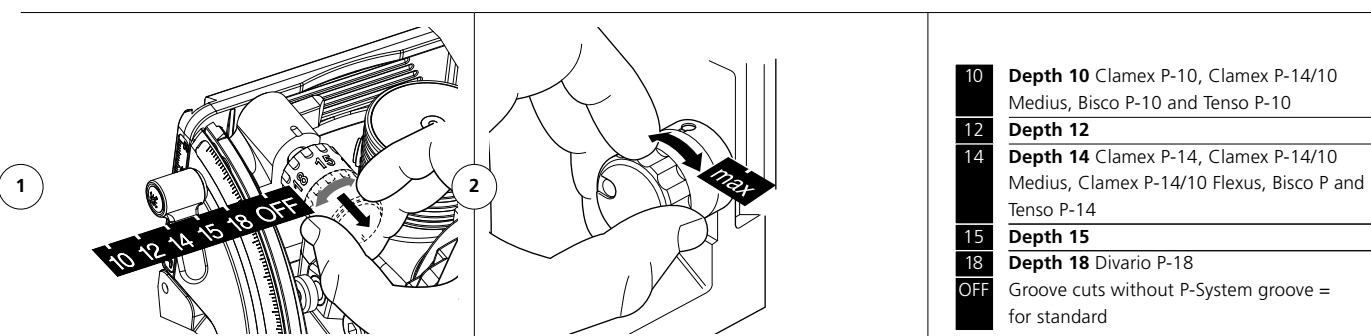
### With 4 mm Lamello System groove cutter



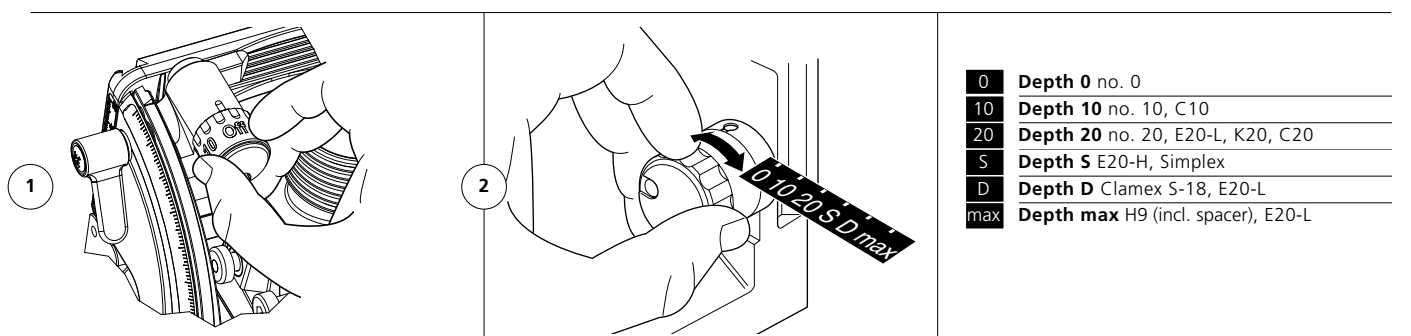
### With 3 mm Lamello System groove cutter



### P-System depth adjustment

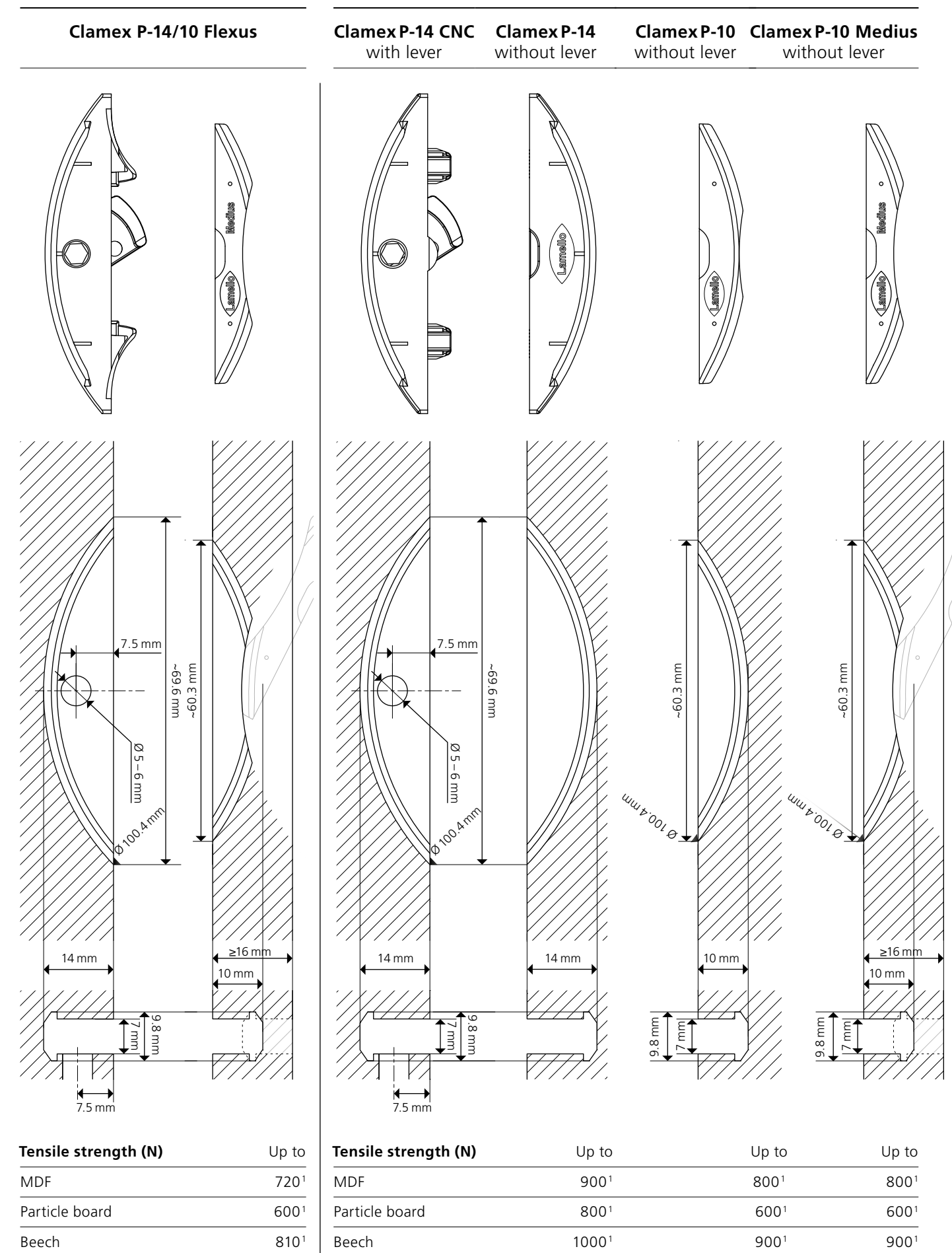
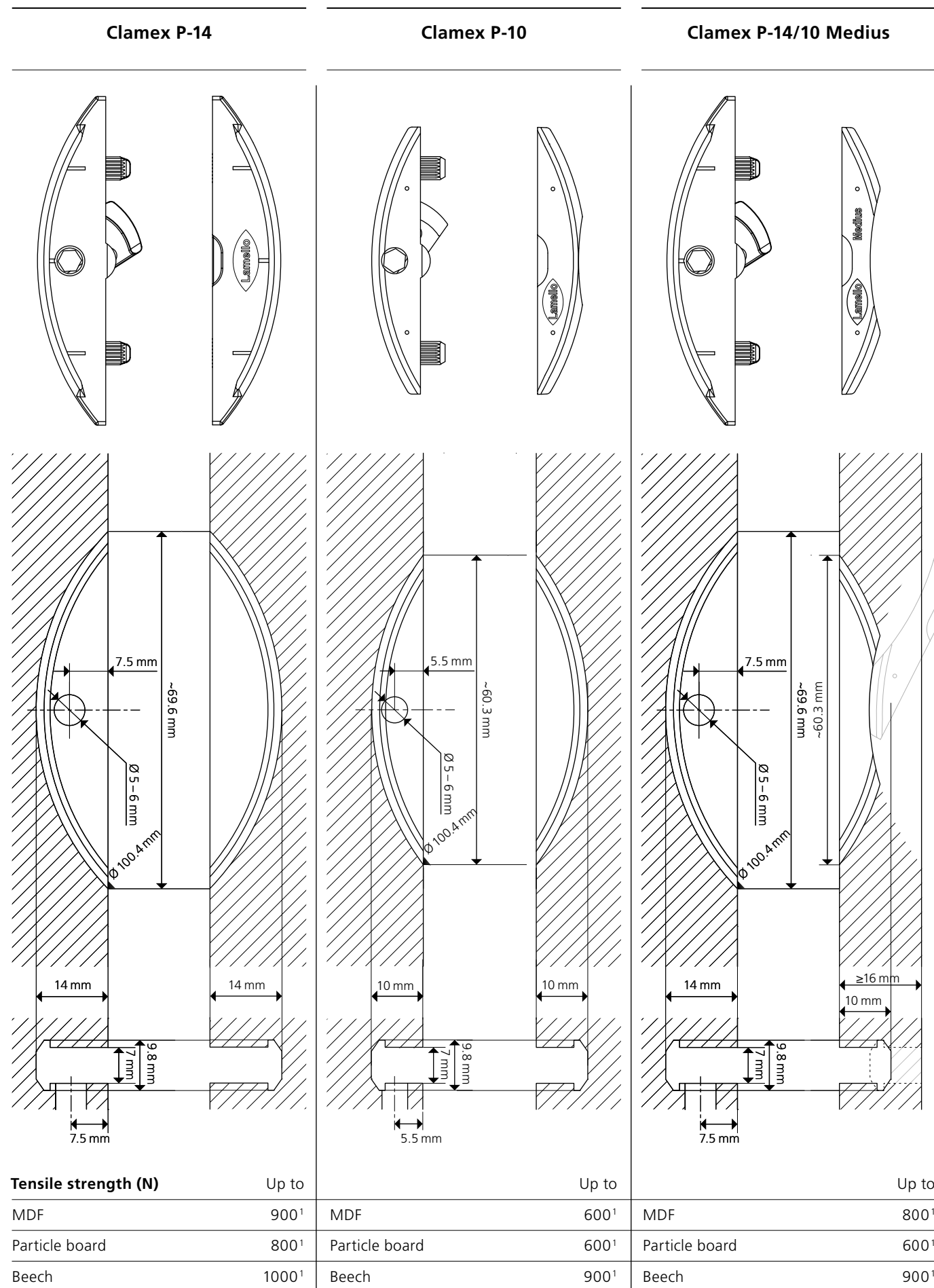


### Lamello depth adjustment system



# Technical information

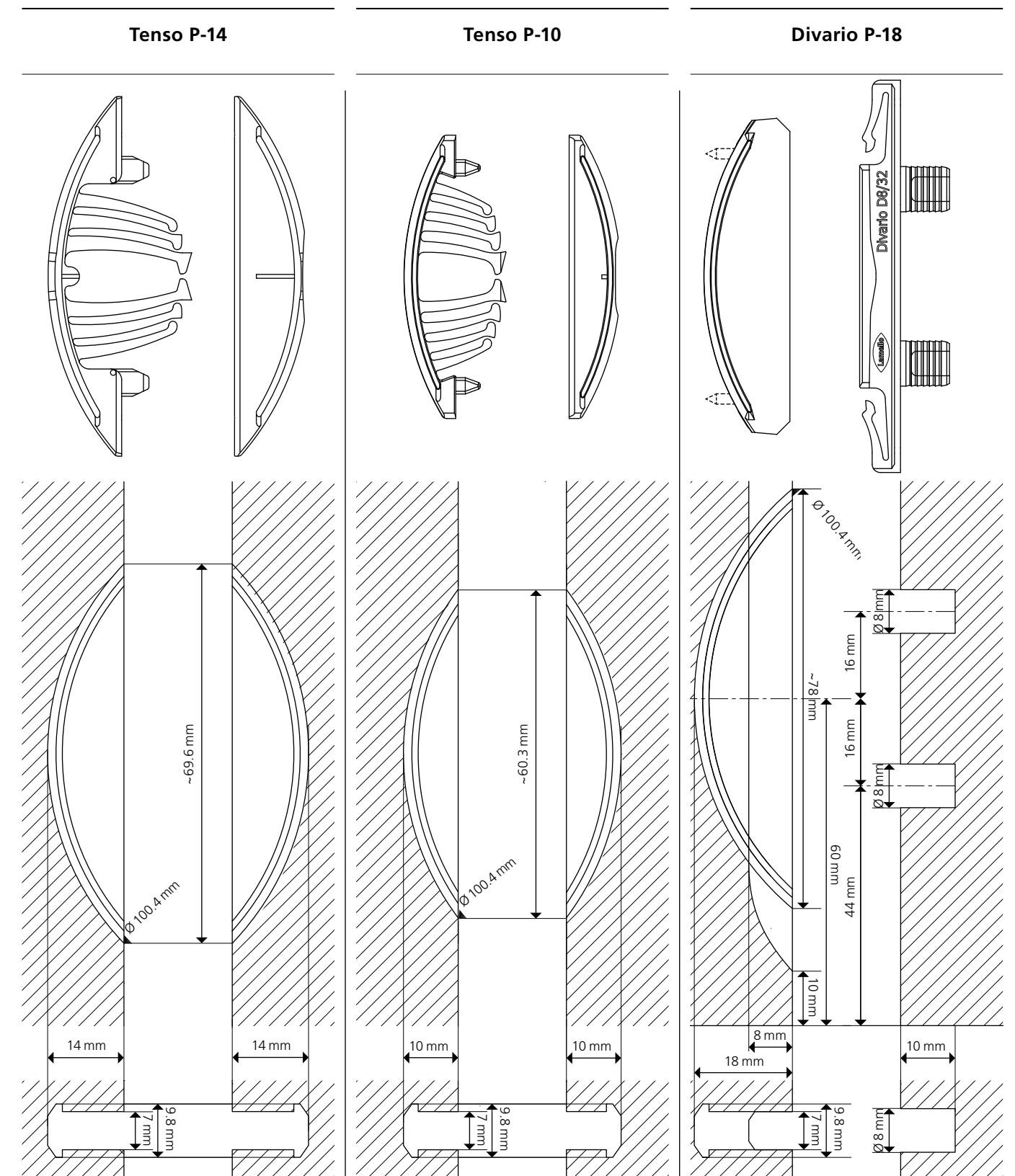
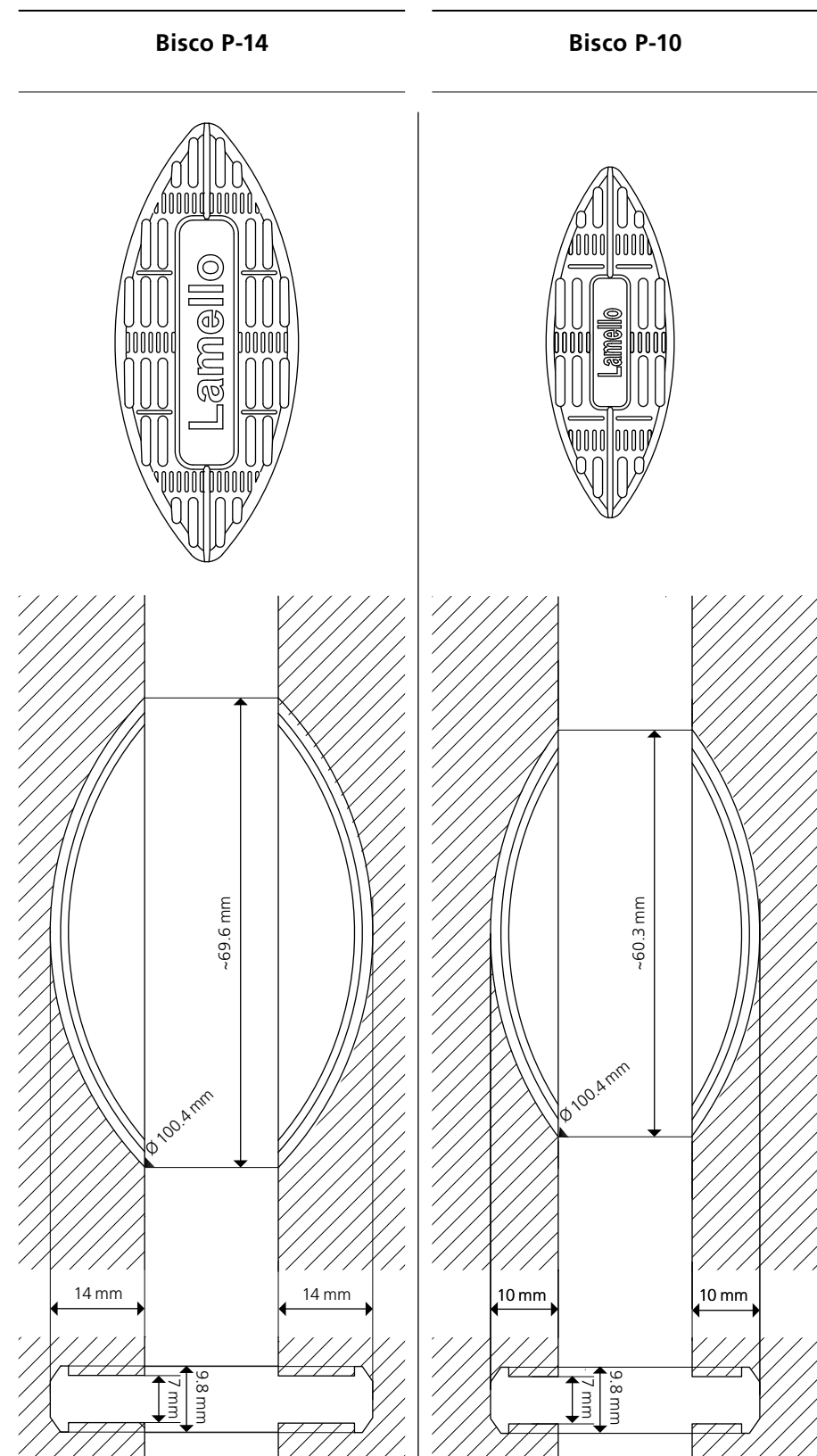
Overview of connectors + grooves (scale 1:1)



<sup>1</sup> See comment on load limits on PAGE 195

# 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)\*

(mm)	19	22	25	30
MDF	600 <sup>1</sup>	700 <sup>1</sup>	800 <sup>1</sup>	1000 <sup>1</sup>
Particle board	500 <sup>1</sup>	600 <sup>1</sup>	700 <sup>1</sup>	1000 <sup>1</sup>
Beech	1700 <sup>1</sup>	2000 <sup>1</sup>	2000 <sup>1</sup>	2000 <sup>1</sup>
Spruce	800 <sup>1</sup>	900 <sup>1</sup>	1300 <sup>1</sup>	1400 <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,

80 pairs Tenso P-14 incl. clip, 30 pairs Tenso P-10

incl. clip, 20 pieces Bisco P-14, 20 pieces Bisco P-10,

80 pairs Divario P-18, Divario installation tool/drill/

marking gauge, Clamex P installation tool, Tenso P-14/10

preload tool, Sortainer T-loc



### P-System connector assortment

**basic** Art. No.

In Systainer3 M187, scope of delivery: **145321**

80 pairs Clamex P-14, 80 pairs Tenso P-14,

incl. preload clip, 30 pairs Clamex P-14/10 Medius,

30 pairs Clamex P14/10 Flexus, 20 pieces Bisco P-14 and

Tenso P-14/10 preload tool

## Clamex P



### Clamex P 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, 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**



### 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\***,

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



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

Ø 6 mm	Art. No.
	<b>251067</b>

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

## Tenso P



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

Tool to pre-load the Tenso P	Art. No.
	<b>145400</b>



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

For offset installation on dividing panels 16 mm with Tenso P-10	Art. No.
	<b>145439</b>

## Divario P



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

Marking jig incl. drill with centering point and rotating depth collar for the precise drilling of Divario drill holes by hand	Art. No.
	<b>125510</b>



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

Marking jig to mark the Divario holes with a pencil	Art. No.
	<b>125511</b>



**Divario P-18 Installation tool**

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



**Divario P-18 Starter set**

In systainer3 M137, scope of delivery: Divario P-18, 80 pairs, drill, marking jig in metal and installation tool	Art. No.
	<b>145552</b>

## Zeta P2



**Stop square for**

<b>Zeta P2, Top 21, Classic X</b>	Art. No.
For stabilising the biscuit joiner in the vertical position, ideal for obtuse mitre joints	<b>251044</b>



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

5 mm, aluminium for 18 mm panels	Art. No.
	<b>253027</b>
2 mm, plastic for 16 mm panels	Art. No.
	<b>253023</b>
4 mm, plastic for mitres	Art. No.
	<b>253026</b>



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

Ø 100.4 x 7 x Ø 22 mm	Art. No.
Z3, 4 NL for Zeta P2	<b>132140</b>



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

Ø 100.9 x 7 x Ø 22 mm	Art. No.
Z3, 4 NL for Zeta P2	<b>132141</b>



**Dust bag**

For Zeta P2/Top 21/Classic X	Art. No.
	<b>257532</b>

## Batteries



Battery pack 18 V, LiHD 4.0 Ah	Art. No.
	<b>313013</b>



Battery pack 18 V, LiHD 5.5 Ah	Art. No.
	<b>313015</b>



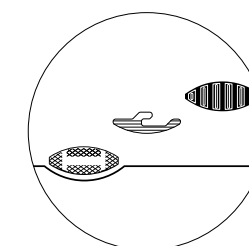
Battery charger ASC 55	Art. No.
	<b>123100</b>

# Lamello System

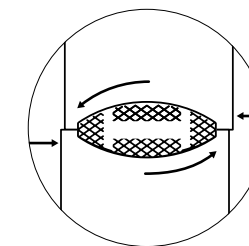
The original for efficient, intuitive and precise joints



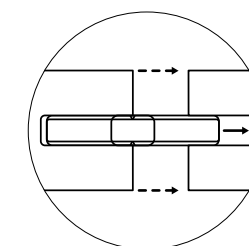
## Features



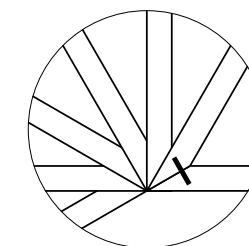
**Versatile applications**  
One cutting principle for many different joining elements



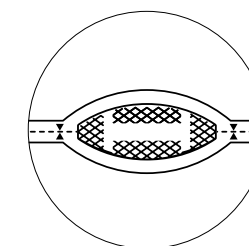
**Lateral tolerance**  
The generous sliding tolerance allows for perfect flush alignment of workpieces



**Perfect fit**  
The precision of the joining elements and of the 4 mm groove lead to a perfect fit



**Versatile**  
The minimal element depth allows for mitres of 22.5–180 degrees as well as surface and corner joints and divisions



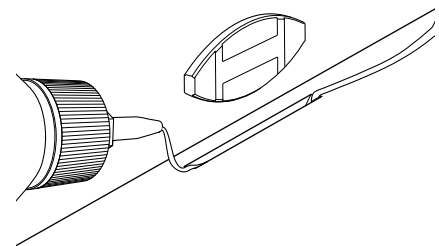
**Symmetrical**  
The identical groove in both workpieces leads to an increase in efficiency in production

# Lamello System

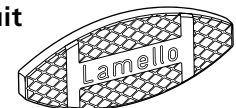
Overview

Joining methods	Connector	Machines		Sequence			
		Power tools	CNC machines	1 Cut	2 Apply glue	3 Insert the connector	4 Clamp

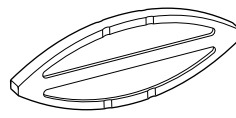
Glueing



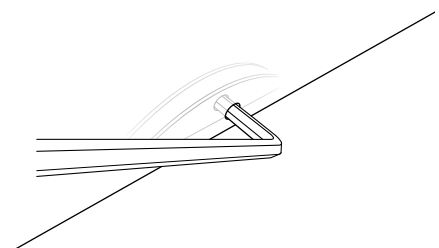
Original wood biscuit



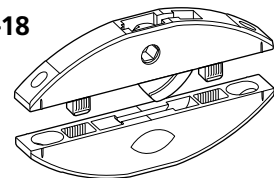
C20



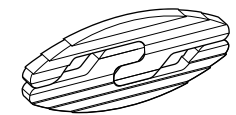
Detachable



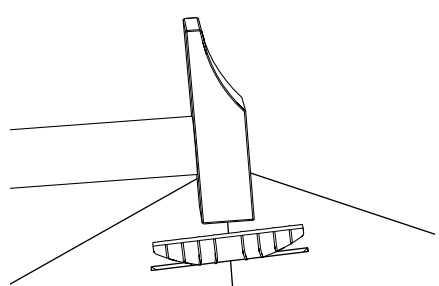
Clamex S-18



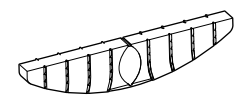
Simplex



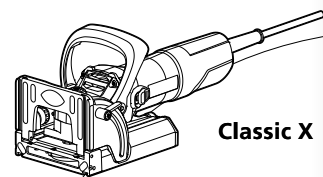
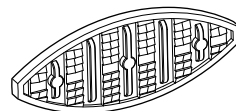
Inserted



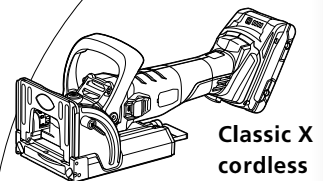
E20



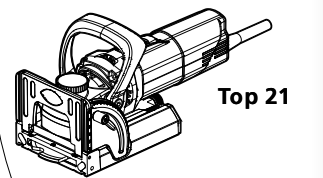
K20



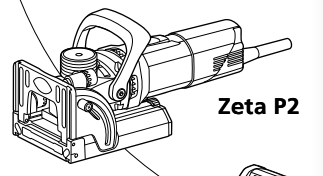
Classic X



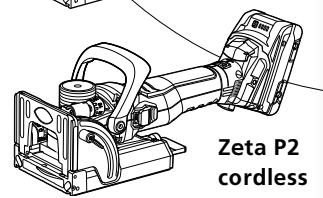
Classic X cordless



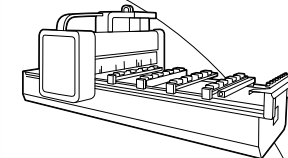
Top 21



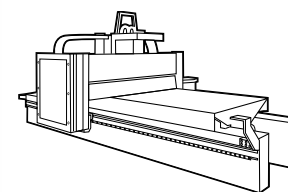
Zeta P2



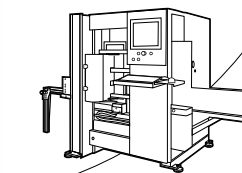
Zeta P2 cordless



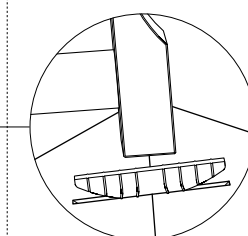
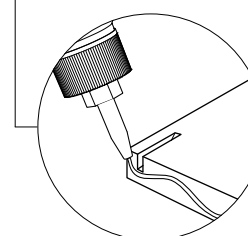
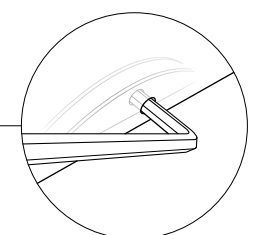
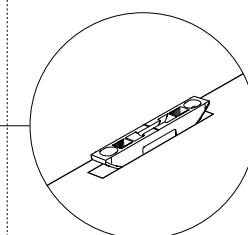
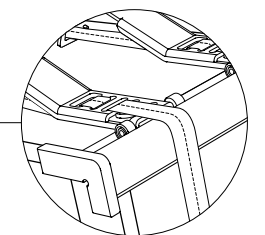
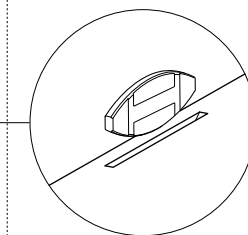
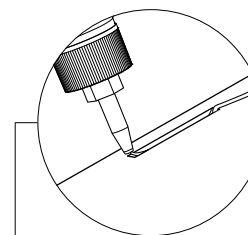
CNC processing centres with **consoles**




CNC processing centres with **nesting technology**



CNC processing centres **vertical**



A man in a light green polo shirt and dark work pants stands in a factory setting. He is smiling and looking towards the camera. The background features industrial shelving with wooden trays and a glass display case containing wicker baskets. The lighting is bright and focused on the man.

*« The original biscuit –  
always a perfect fit!  
Efficient, quick and precise! »*

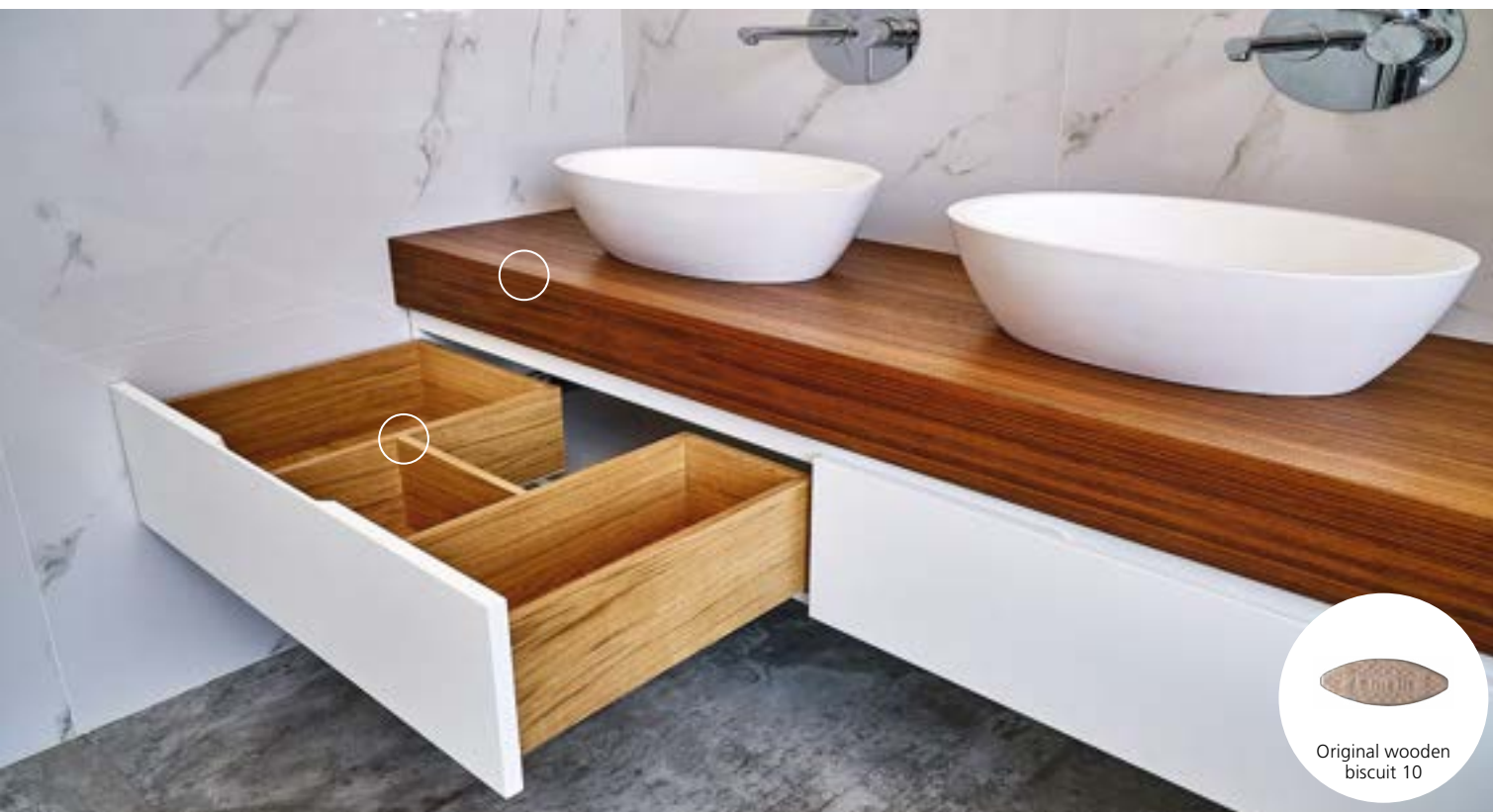
Antonio Orlando, Head of Production Ladenmacher AG in Hägendorf,  
Switzerland



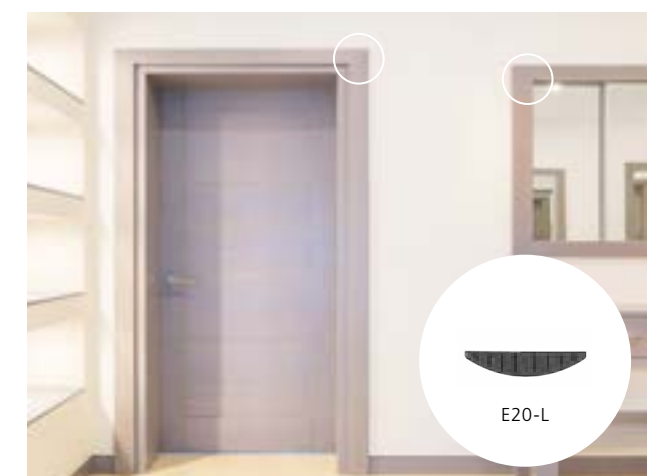
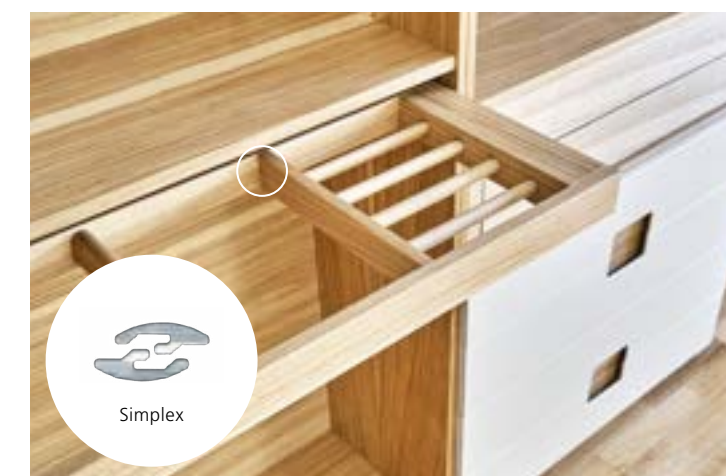
# Lamello System

Applications

## Furniture manufacturing



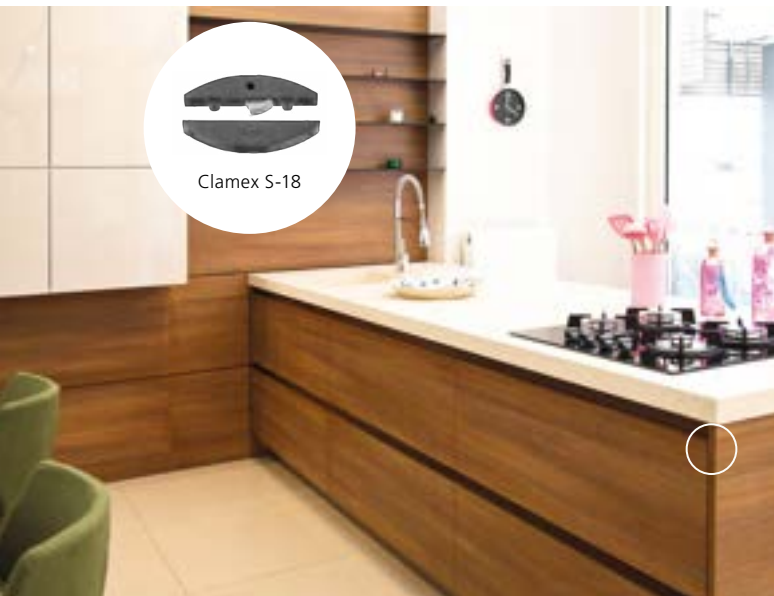
## Interior fitting



# Lamello System

Applications

## Kitchen manufacturing



Clamex S-18

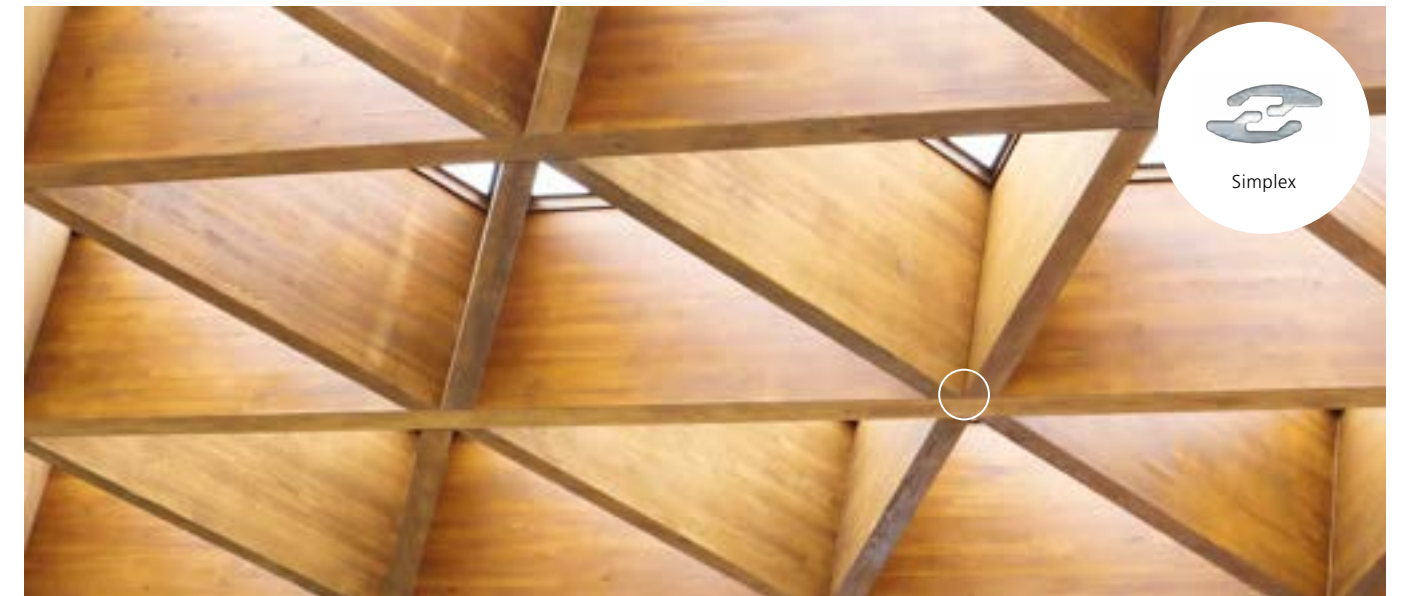


C20



Clamex S-18

## Commercial joinery



Simplex



K20



Original wooden biscuit H9

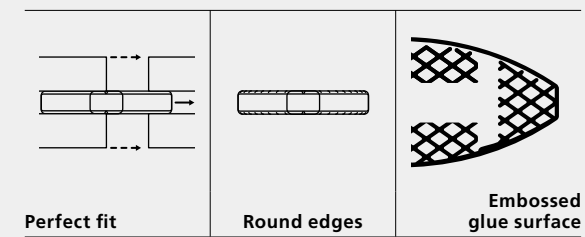
## Shop fitting

# Original wood biscuit

The original wood biscuit that always fits



## Features

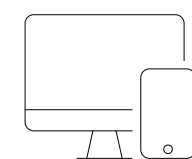


The original wood biscuit is the proven solution for wood joints and the original from the inventor of the system. The original wood biscuit guarantees quality with its dimensional accuracy, optimal glue distribution, dimensional stability as well as the sustainable cultivation of the beech wood. The perfect fit demonstrates its value from the very start, when the biscuits are easily inserted into the groove and remain in place even when the work piece is turned.

## Articles

	<b>Original wood biscuit 20</b>	Art. No.
1000 pieces		<b>144020</b>
	<b>Original wood biscuit 10</b>	Art. No.
1000 pieces		<b>144010</b>
	<b>Original wood biscuit 0</b>	Art. No.
1000 pieces		<b>144000</b>
	<b>Original wood biscuit H9*</b>	Art. No.
1000 pieces		<b>144009</b>
<b>Assorted</b>	Art. No.	
500/250/250 pieces (20/10/0)		<b>144030</b>

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

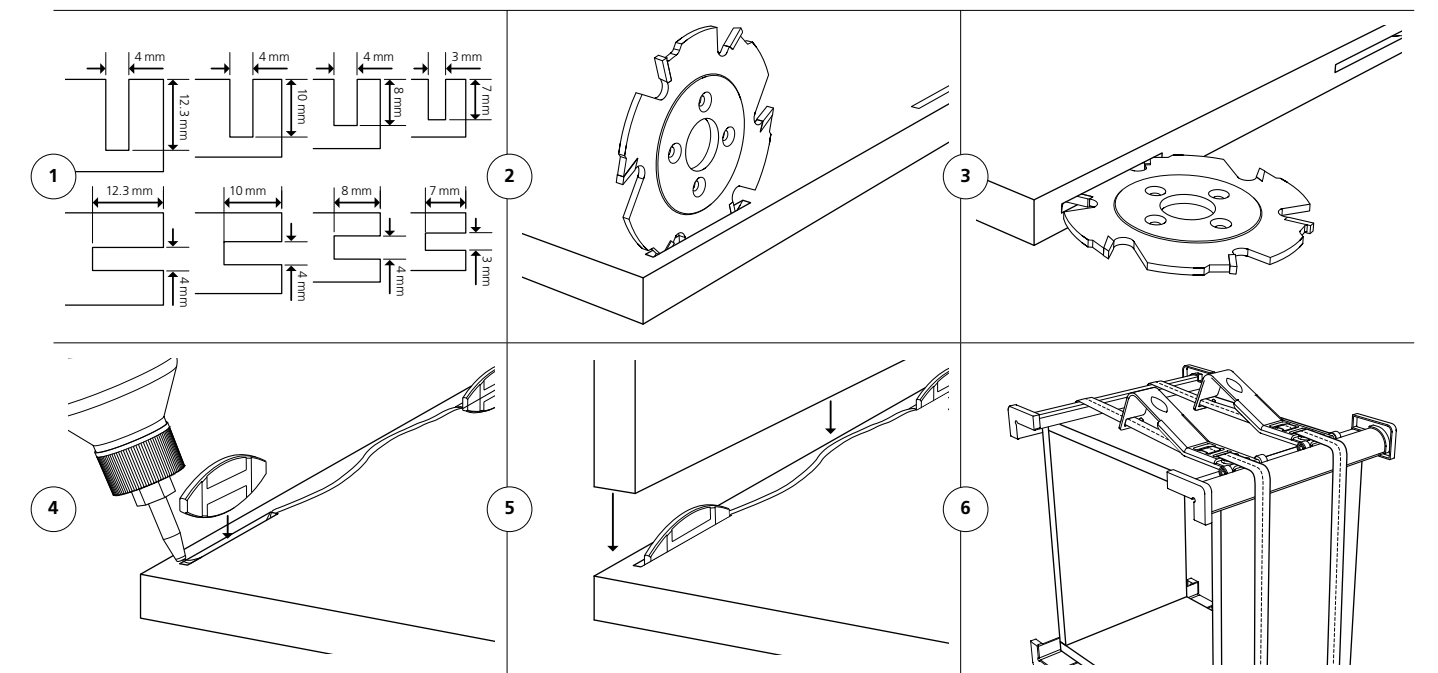


Experience the connector live and receive comprehensive product information!



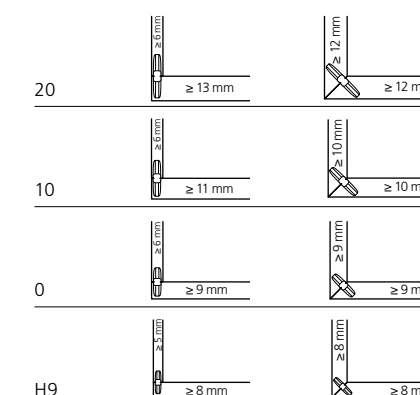
\* Installation of wood biscuits with cutter Ø 100 × 4 × Ø 22 mm (standard cutter). Installation of H9 wood biscuits with cutter Ø 78 × 3 × Ø 22 mm (Art. No. 132009)

## Function



## Technical data

### Joining methods



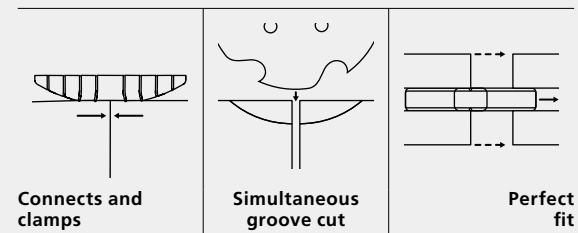
Size 20	56 × 23 × 4 mm
Size 10	53 × 19 × 4 mm
Size 0	47 × 15 × 4 mm
Cutter	Ø 100 × 4 × Ø 22 mm
Size H9	38 × 12 × 3 mm
Cutter	Ø 78 × 3 × Ø 22 mm
Material connector	Beech
Installation tolerance	Long. ± 1.0 mm/radial ± 1.0 mm
Clamping force (N)	Depending on the adhesive
Material range	Particle board, MDF, plywood, softwood, hardwood etc.

See **PAGE 110–111** for technical specifications

# E20

The self-clamping element


## Features




E20 is a self-clamping element and can be used with any Lamello biscuit joiner. The E20 is driven into the 4 mm groove using a hammer. During insertion, the curved ridges on each side of the connector hold in the groove and clamp the workpieces together. E20 serves as a perfect glueing aid in the workshop or on site.

E20-L is suitable for surface joints such as picture frames, plinth or panel extensions. E20-H is used in the edge and serves as a plinth connector.

## Articles

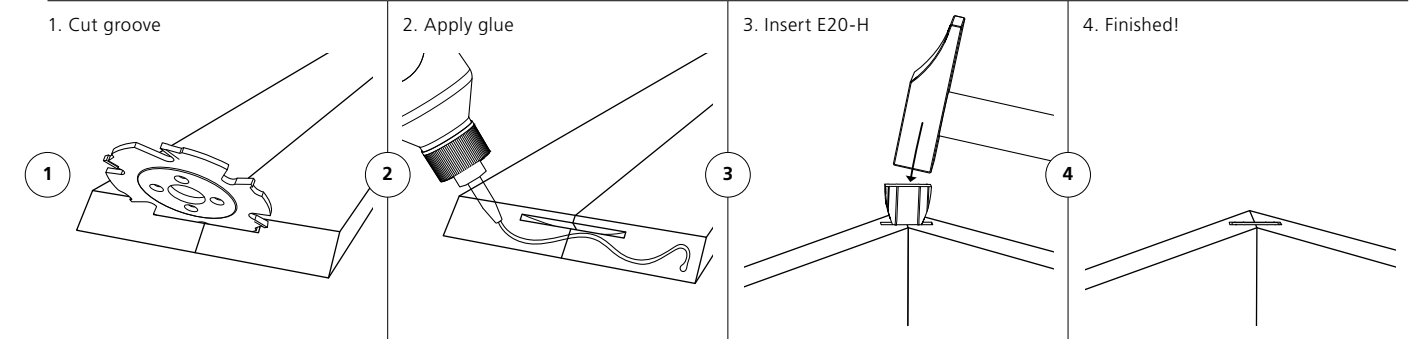
	<b>E20-H</b>	Art. No.
	80 pieces	<b>145021</b>
	400 pieces	<b>145026</b>
	1200 pieces	<b>145028</b>

	<b>E20-L</b>	Art. No.
	80 pieces	<b>145022</b>
	400 pieces	<b>145025</b>
	1200 pieces	<b>145027</b>

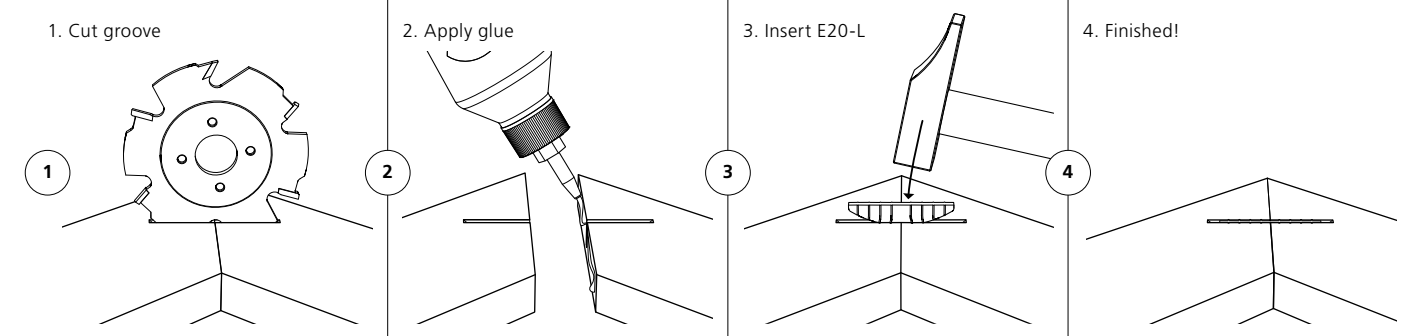
<b>Assorted</b>	Art. No.
40/40 pieces (E20-H/E20-L)	<b>145020</b>

## Function

### E20-H

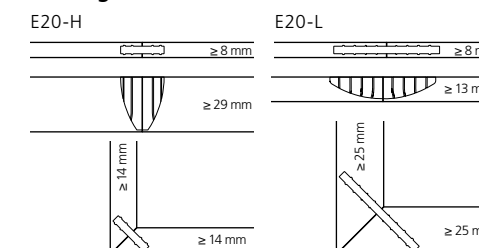


### E20-L



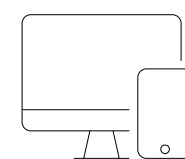
## Technical data

### Joining methods



Size E20-H	23 × 28 × 4 mm
Size E20-L	56 × 11.5 × 4 mm
Cutter	Ø 100 × 4 × Ø 22 mm
Material connector	Fiberglass reinforced plastic
Clamping force (N)	Depending on the adhesive
Material range	Particle board, MDF, plywood, softwood, hardwood etc.

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



Experience the connector live and receive comprehensive product information!

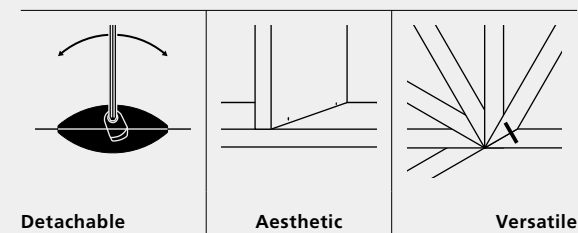


# Clamex S-18

Detachable, flexible and simple.  
Installation in an 8 mm groove  
with screws



## Features



Clamex S-18 is a detachable connector. It is inserted into an 8 mm wide groove and held in place with screws. Through the minimalist 6 mm access hole, Clamex S-18 is firmly connected and disconnected using a lever.

Clamex S-18 can be used with any Lamello biscuit joiner, allows aesthetic joints at all angles and is ideal for permanently joined or detachable mitres.

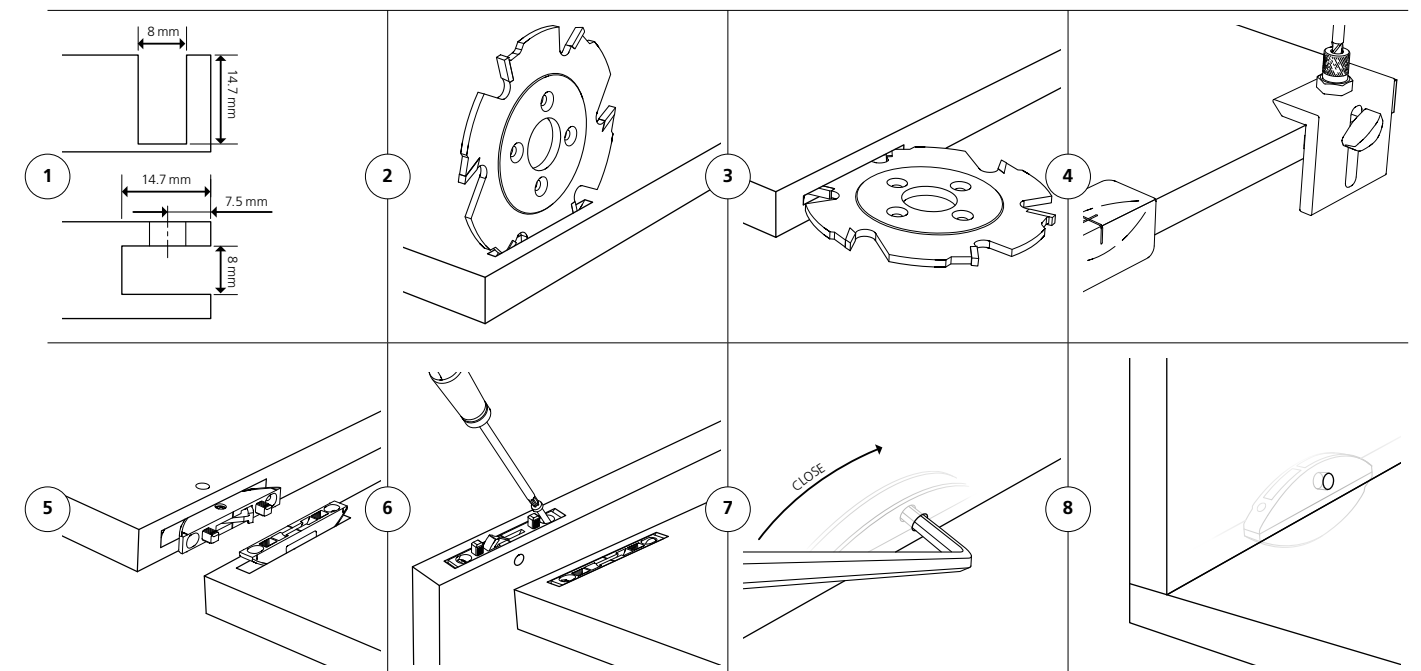
Clamex S-18 is used in mitre joints from 19 mm material thickness and in butt joints from 15 mm.

## Articles



Clamex S-18	Art. No.
18 pairs, incl. screws 3 × 16 mm	145231
80 pairs	145236
300 pairs	145241
1000 pairs	145251

## Function



## Technical data

Joining methods	Size	66 × 29 × 8 mm		
	Cutter	Ø 100 × 8 × Ø 22 mm		
	Material connector	Fiberglass reinforced plastic		
	Material of lever	Zinc die cast		
	Screw	Panhead 3 × 16 mm		
	Installation tolerance	Long. ± 1.0 mm		
	Clamping force (N) Up to	MDF 600 <sup>1</sup>	Particle board 600 <sup>1</sup>	Beech 900 <sup>1</sup>
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

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

Experience the connector live and receive comprehensive product information!

\* Double cut with 4 mm cutter and spacer  
Single cut with 8 mm cutter Art. No. 132108

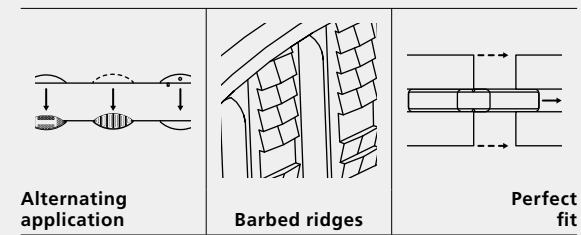
See PAGE 112 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# K20

The clamping element, which holds the workpiece in position



## Features




K20 is a clamping element and can be used with any Lamello biscuit joiner. K20 has barbed ridges on each side of the connector which anchor themselves into the 4 mm groove.

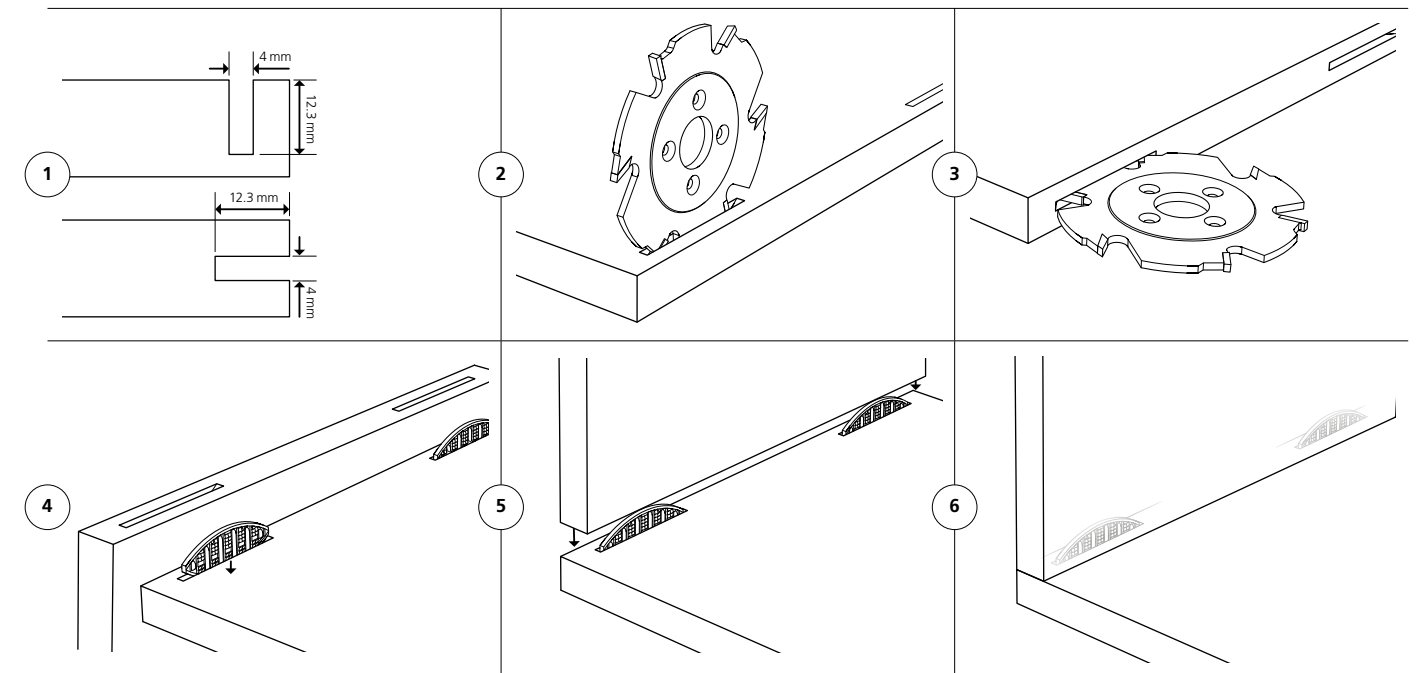
The clamping biscuit is ideal for difficult to clamp workpieces such as fillers or covers and is able to hold workpieces in the correct position until the adhesive is dry.

The combination with the original wood biscuits size 20 results in a joint with high strength.

## Articles



	Art. No.
<b>K20</b>	
80 pieces	<b>145001</b>
250 pieces	<b>145000</b>

## Function

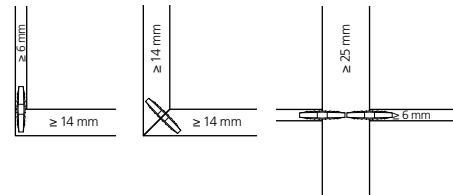


[www.lamello](http://www.lamello)

Experience the connector live and receive comprehensive product information!

## Technical data

<b>Joining methods</b> 	Size	60 × 24 × 4.5 mm
	Cutter	Ø 100 × 4 × Ø 22 mm
	Material connector	Plastic
	Installation tolerance	Long. ± 1.0 mm/radial ± 1.0 mm
	Clamping force (N)	Depending on the adhesive
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.

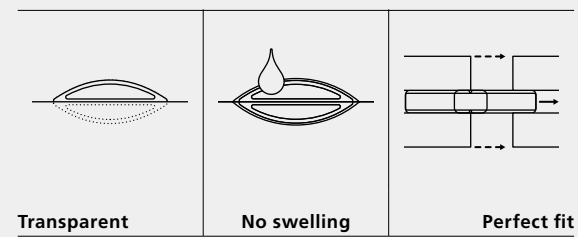
See **PAGE 113** for technical specifications

# C20/C10

The transparent element



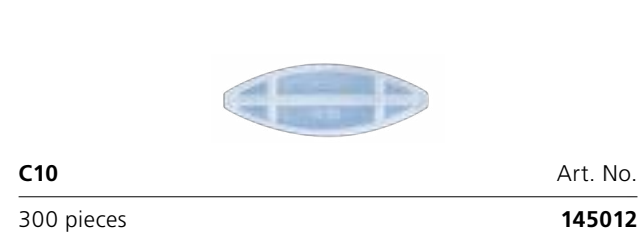
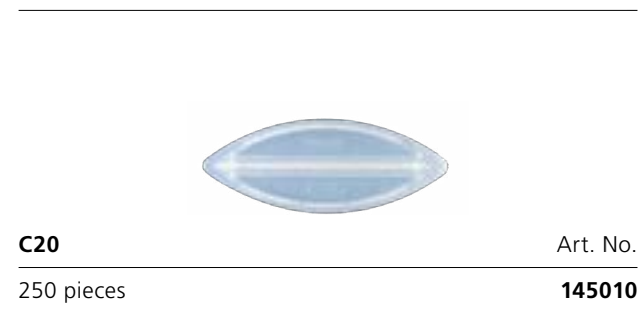
## Features



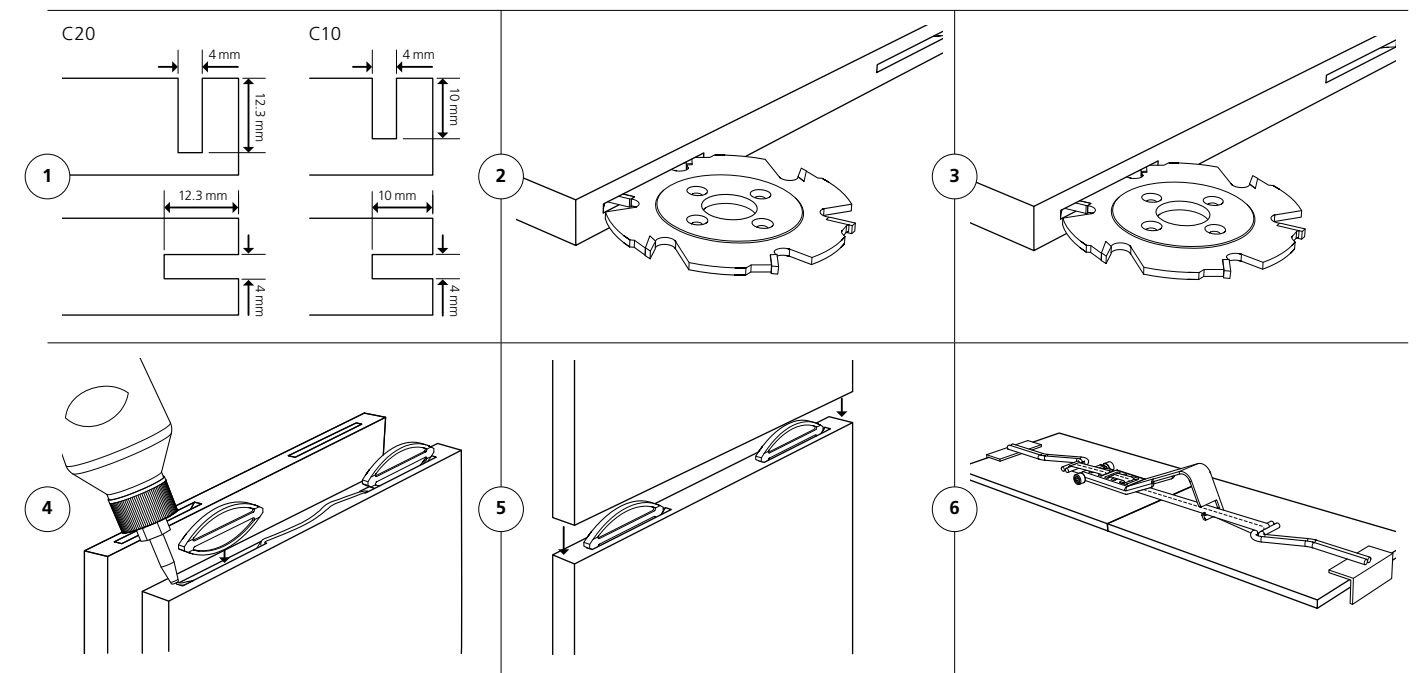
C10 and C20 plastic biscuits are the proven joining solution for mineral composite materials such as Corian, Varicor.

The white transparent plastic ensures that the connectors do not show through thin materials. The specific adhesive for composites can be used for the joints as well as for the biscuits. Since the C10 and C20 do not swell, these biscuits are also suitable for outdoor or wet areas. The sizes 10/20 match the sizes of the original wood biscuit.

## Articles

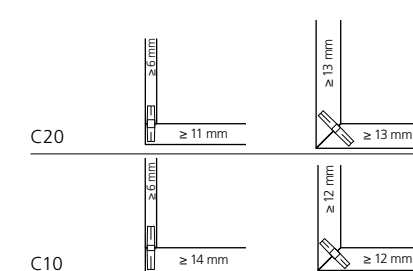


## Function



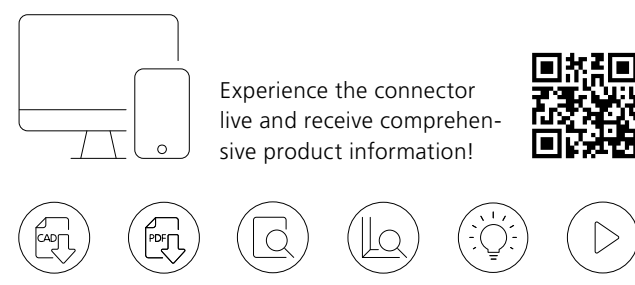
## Technical data

### Joining methods



Size C20	60 × 23 × 4 mm
Size C10	53 × 19 × 4 mm
Cutter	Ø 100 × 4 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 1.0 mm/radial ± 1.0 mm
Clamping force (N)	Depending on the adhesive
Material range	Mineral material panels (e.g. Corian)

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

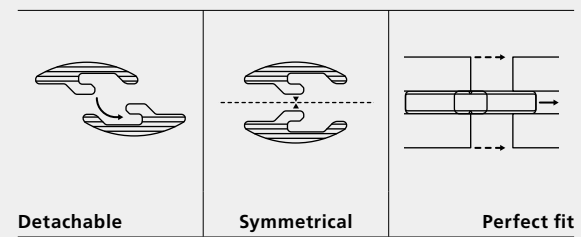


# Simplex

Detachable slide-in connector



## Features



Simplex is a detachable slide-in connector in two-parts for dismantlable constructions and can be used with any Lamello biscuit joiner. Simplex is inserted into the 4 mm groove and anchored with PUR adhesive. The connector has a stop on one side and can be slid-in and removed again.

Simplex is ideal for repeated insertion and removal of a workpiece, e.g. an inspection cover, a filler, for detachable constructions or as a glueing aid.

## Articles



Simplex	Art. No.
50 pairs	<b>166101</b>
100 pairs	<b>166100</b>

## Accessories

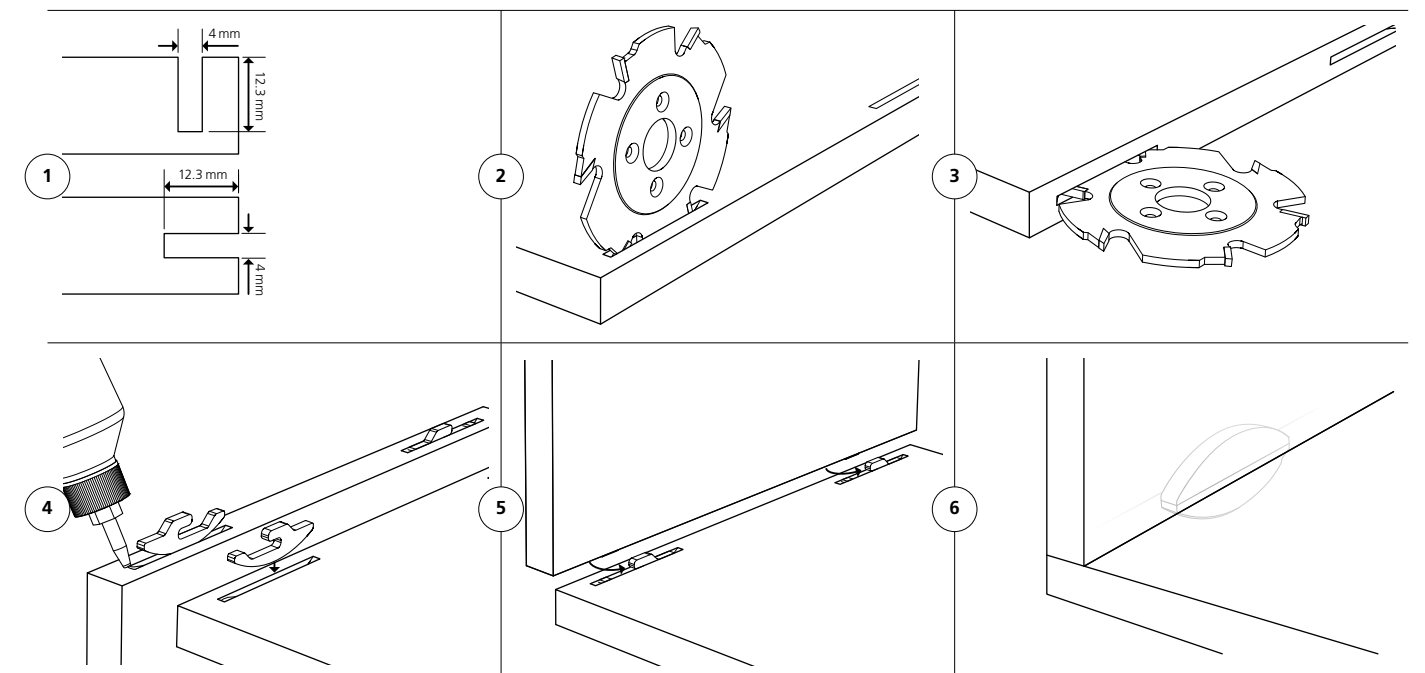


Simplex inserting tool	Art. No.
For accurate positioning of Simplex	<b>166110</b>

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

Experience the connector live and receive comprehensive product information!

## Function



## Technical data

Joining methods	Size	54 × 23 × 4.1 mm
	Cutter	Ø 100 × 4 × Ø 22 mm
	Material connector	Aluminium
	Installation tolerance	Long. ± 0.5 mm
	Clamping force (N)	Depending on the adhesive
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.

See PAGE 112 for technical specifications

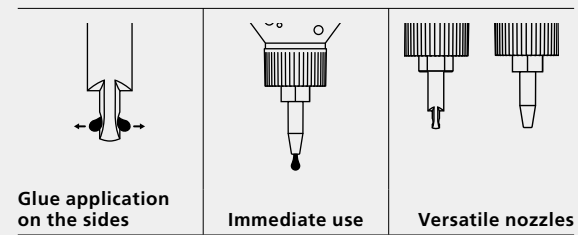


# Minicol

The all purpose glue applicator



## Features



Minicol is a universal glue applicator and the ideal solution for applying glue in 4 mm grooves.

Unlike with a glue bottle, the glue exits the nozzle on the sides. Therefore glue is applied to the groove sides instead of the groove bottom, resulting in better distribution and a more stable joint.

As the glue applicators are positioned with the nozzles facing downwards in the wooden base, the glue leaves the nozzle immediately and drying out is prevented. In addition to the plastic nozzle, a metal nozzle for biscuit grooves and a pointed nozzle are also available.

## Articles



<b>Minicol glue applicator</b>	Art. No.
With plastic nozzle for biscuit grooves	<b>175500</b>
With metal nozzle for biscuit grooves	<b>175550</b>

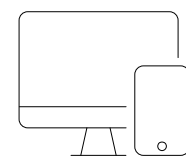


<b>Minicol pointed nozzle</b>	Art. No.
Plastic nozzle	<b>335522</b>



<b>Minicol nozzles for biscuit grooves</b>	Art. No.
Metal nozzle	<b>285512</b>
Metal nozzle for biscuits size H9	<b>285509</b>
Plastic nozzle	<b>335511</b>

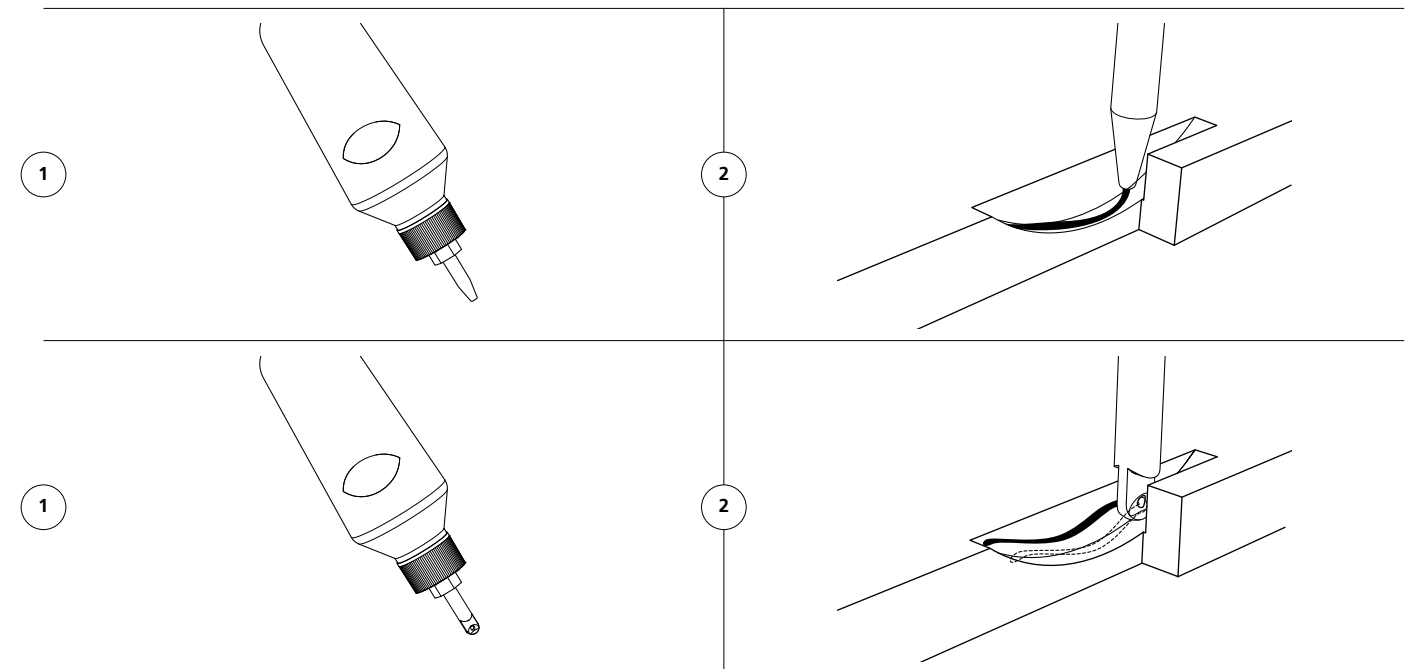
[www.lamello](http://www.lamello)



Experience the Minicol live and receive comprehensive product information!



## Function



## Technical data

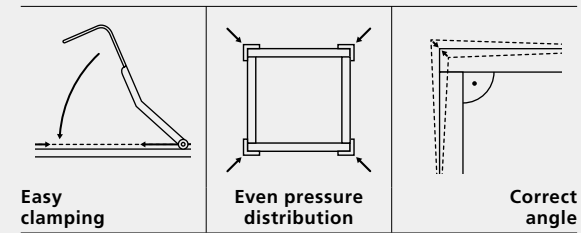
Dimension	100 × 100 × 230 mm	
Volume	300 ml	
Material	Base	Maple
	Bottle	Plastic
	Nozzle	Metal/Plastic

# Clamping set

Clamping system for cabinets



## Features



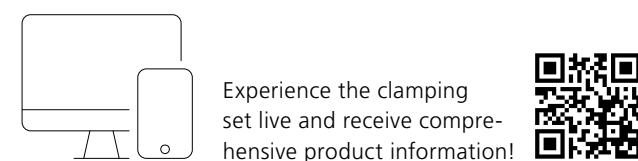
Clamping set is a system for glueing cabinets and various other components in furniture production and is an addition to the Lamello System. The clamping set consists of profile sections to protect the edges, 8 meter long straps with tensioners and two tension hooks. Unlike with screw clamps, the pressure distribution is always uniform, which means furniture is automatically clamped at right angles regardless of whether the panels are glued in a butt or mitre joint.

Clamping set is ideal for drawers, cabinets, frames or wall and floor panels.

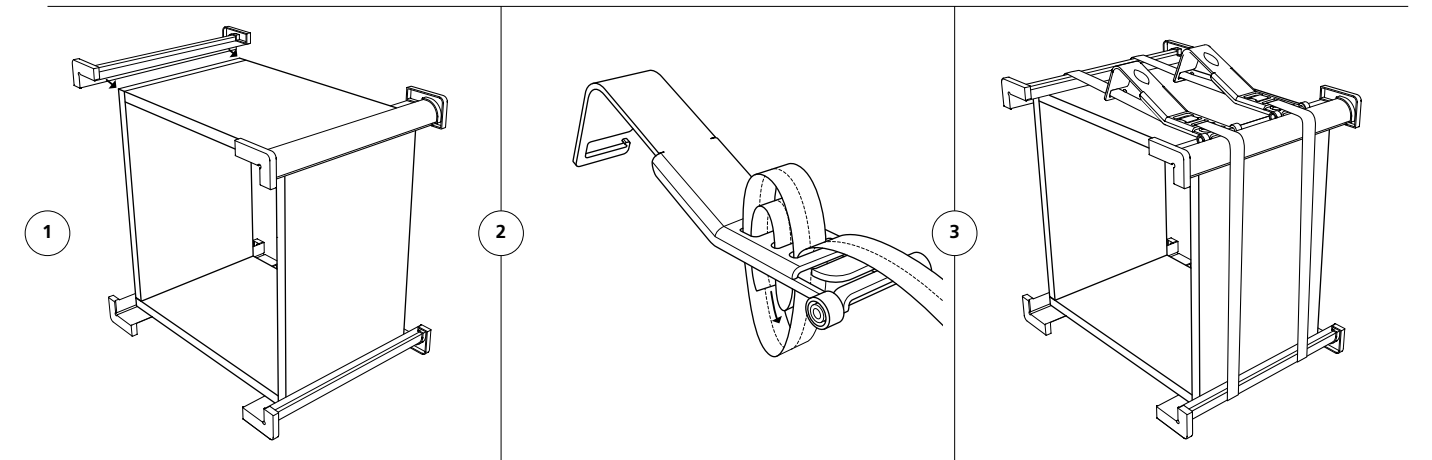
## Articles

<b>Clamping set</b>		Art. No.
20 cm	1 piece of clamps 8 m strap 4 pieces profile sections 20 m	<b>175021</b>
60 cm	2 pieces of clamps 2 pieces 8 m straps 4 pieces profile sections 60 cm 2 pieces tension hooks	<b>175020</b>
<b>Tension hooks</b>		Art. No.
2 pieces		<b>175200</b>
<b>Profile sections</b>		Art. No.
4 pieces, length 12 cm		<b>175401</b>
4 pieces, length 40 cm		<b>175402</b>
4 pieces, length 60 cm		<b>175403</b>

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



## Function



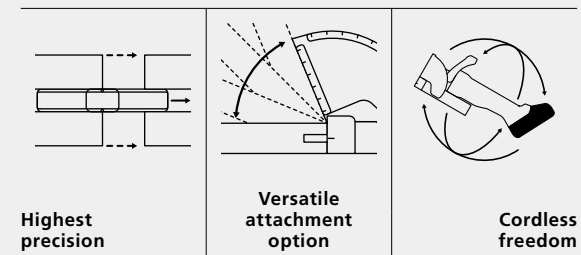
## Technical data

Min. workpiece length	150 mm	
Material	Aluminium protectors Polyester belt for clamps Clamps/Tension hooks	Anodised aluminium Polyester Metal powder-coated

# Classic X cordless

The original biscuit joiner – precise and cordless

## Features



Classic X cordless is the original, battery-powered biscuit joiner from the inventor of the Lamello system for cutting the 4 mm groove. The proven and well-designed Classic X cordless is fast and versatile in its use and the basis for the wide range of connectors with fixed, self-clamping and detachable solutions. Precision in every component leads to perfect accuracy of the workpieces, and the cordless freedom means even more flexible application. The multifunctional stop square allows perfect mitres by applying on the exterior surface and stabilises the machine in vertical position.

## Articles

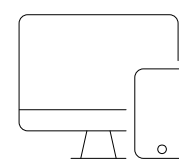


Classic X cordless biscuit joiner	Art. No.
In systainer, incl. 2 batteries and charger	<b>101701DES</b>
In systainer, without batteries, without charger	<b>101700DES</b>
In carton, without batteries, without charger	<b>101700DEK</b>



**Kit contains**  
 Classic X cordless biscuit joiner, 2 × battery pack 18 V, LiHD 4.0 Ah\*, battery charger ASC 55\*, suction stub 36 mm, stop square, spacer 4 mm, dust bag, tool set  
 \* Only included in art. No. 101701S

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

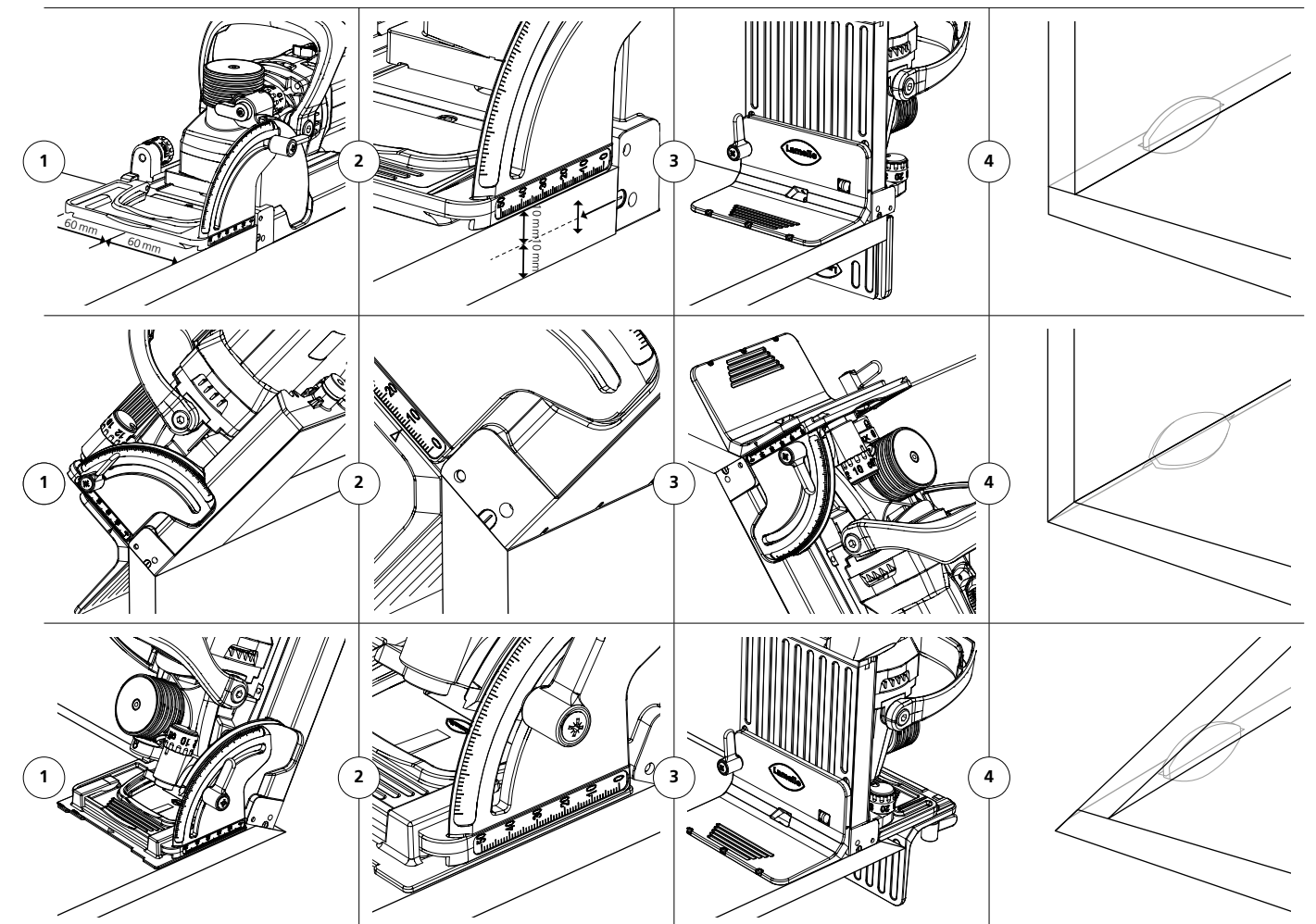


Experience Classic X cordless live and receive comprehensive product information!



More information regarding the battery system on **PAGES 54–57**

## Function



## Technical data

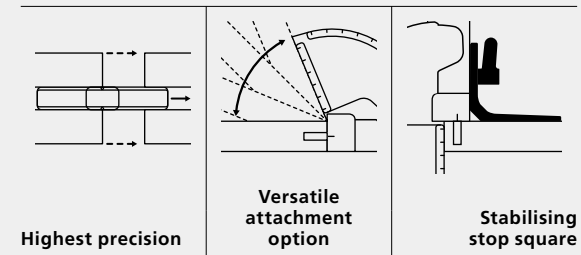
Battery voltage	18 V	Groove width	4 mm
Speed	7 300 min <sup>-1</sup>	Groove depth max.	20 mm
Cutter	Ø 100 × 4 × 22 mm	Weight	3.1 kg incl. battery

# Classic X

The original biscuit joiner for every workshop



## Features



Classic X is the original biscuit joiner from the inventor of the Lamello System for cutting the 4 mm groove.

The proven and well-designed Classic X is fast and versatile in its use and the basis for the wide range of connectors with fixed, self-clamping and detachable solutions.

Precision in every component leads to perfect accuracy of the workpieces and saves time. The multifunctional stop square allows perfect mitres by applying on the exterior surface and stabilises the machine in vertical position.

## Articles



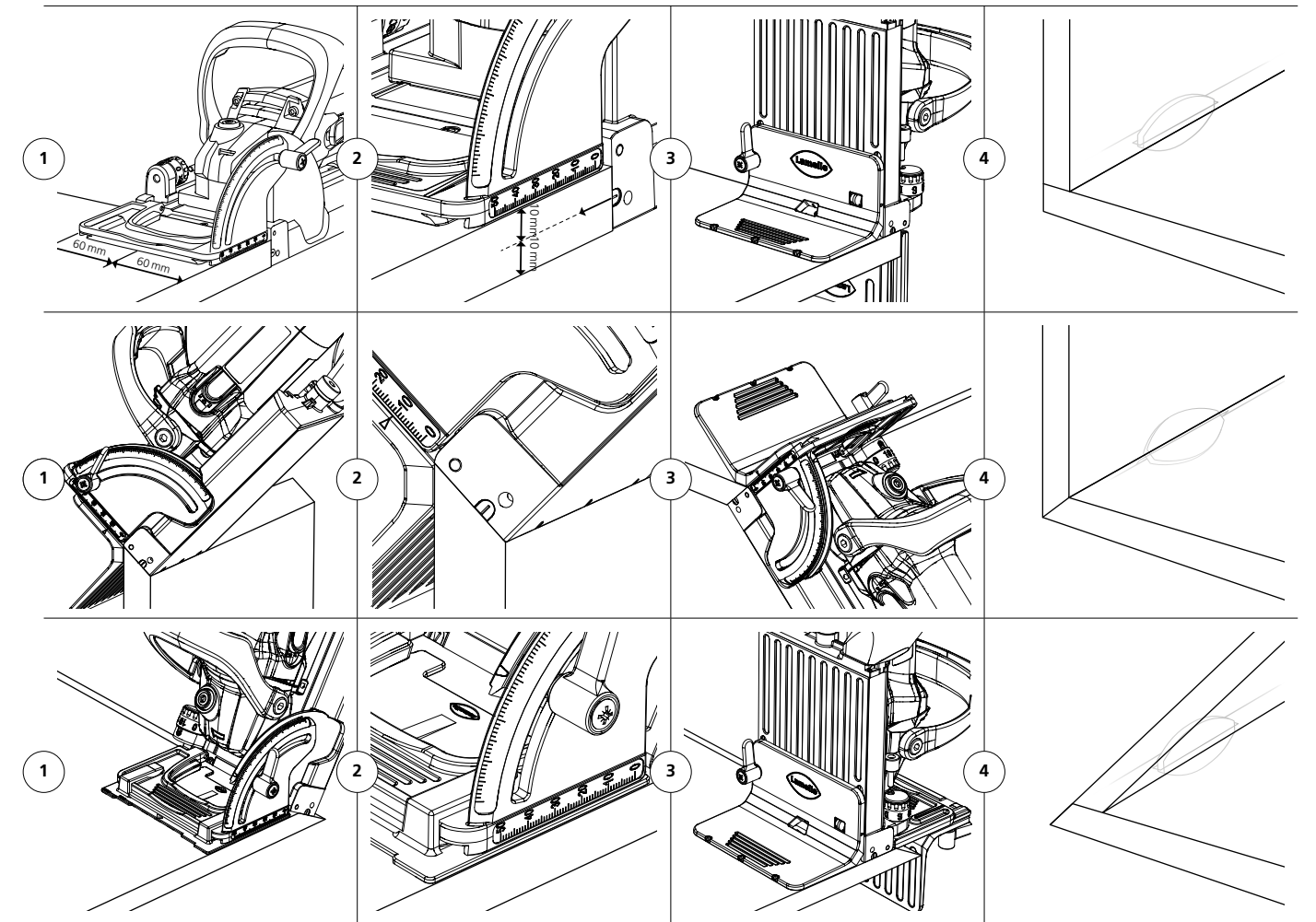
<b>Classic X</b>	Art. No.
In systainer	<b>101602S</b>
In carton	<b>101602K</b>



**Kit contains**

Classic X, groove cutter HW (carbide), suction stub 36 mm, stop square, spacer 4 mm, tool set
---

## Function



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

Experience Classic X live and receive comprehensive product information!

## Technical data

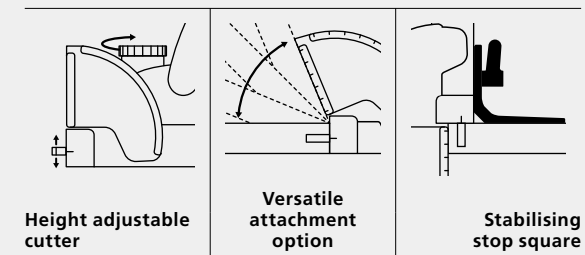
Power/Voltage	850 W/230 V or 120 V	Teeth	Z6 (3+3) with reversing teeth
Speed	10 000 min <sup>-1</sup>	Cutting depth max	20 mm
Cutter	Ø 100 × 4 × Ø 22 mm	Weight	2.9 kg

# Top 21

The original biscuit joiner with height adjustable blade from the inventor



## Features



Height adjustable cutter

Versatile attachment option

Stabilising stop square

Top 21 is the biscuit joiner from the inventor of the Lamello System and includes a height adjustable blade for cutting the 4 mm groove. The unique height adjustment of the cutter in steps from 0.1 mm to max. 4 mm allows positioning the groove in the middle of the material thickness.

Precision in every component leads to perfect accuracy of the workpieces and saves time. The multifunctional stop square allows perfect mitres by applying on the exterior surface and stabilises the machine in vertical position.

## Articles



### Top 21

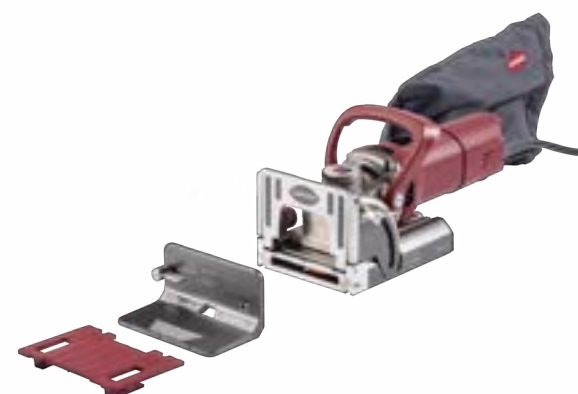
Art. No.

In systainer

**101501S**

In systainer with carbide reversing blade cutter

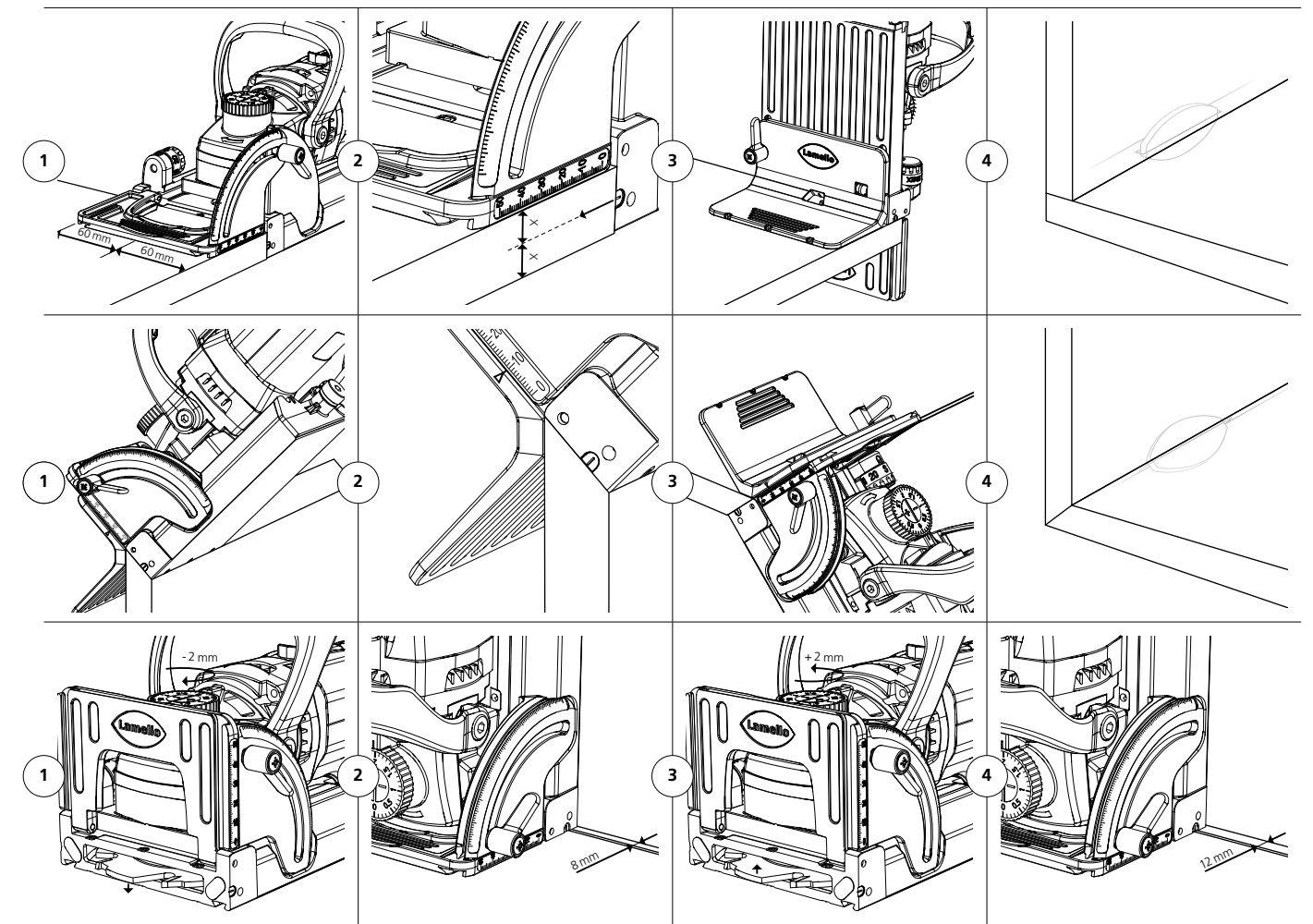
**101501SW**



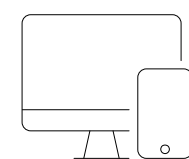
### Kit contains

Top 21, groove cutter HW, suction stub 36 mm, dust bag, stop square, spacer 4 mm, tool set

## Function



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



Experience Top 21 live and receive comprehensive product information!



## Technical data

Power/Voltage	1 050 W/230 V 800 W/120 V	Teeth	Z2 + V4 with scoring teeth
Speed	9 000 min <sup>-1</sup>	Cutting depth max	20 mm
Cutter	Ø 100 x 4 x Ø 22 mm	Weight	3.5 kg

# Accessories

Classic X cordless, Classic X and Top 21

## 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.  
5 mm, aluminium for 18 mm panels **253027**  
2 mm, plastic for 16 mm panels **253023**  
4 mm, plastic for mitres **253026**



**Slide shoe for biscuit joiner** Art. No. **251057**  
To protect the wall and the machine for Zeta P2/Top 21/Classic X



**Carbide tipped saw blades HW (carbide)**  
for expansion gaps, Ø 100 x 2.4 x Ø 22 mm Art. No. **132350**  
Z20, 4 screw holes, 2 spacers  
for Zeta P2/Top 21/Classic X



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



Z6 alternating teeth, without hub, Art. No. **132106**  
with spacer for Classic X



**Groove cutter HW (carbide), Ø 78 x 3 x Ø 22 mm** Art. No. **132009**  
Z4, 4 Screw holes, with hub for original wooden biscuit H9 for Zeta P2/Top 21/Classic X



**Groove cutter HW (carbide) with reversible blades,**  
Ø 100 x 8 x Ø 22 mm (Clamex S-18 connector) Art. No. **132108**  
Z4 + V4, 4 screw holes for Top 20/Top 21/Classic X



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



**Suction stub 36 mm** Art. No. **331007**  
For biscuit joiner (Festool compatible)



**Deflector stub** Art. No. **331005**  
For biscuit joiner

## Batteries



Art. No. **313013**  
Battery pack 18 V, LiHD 4.0 Ah



Art. No. **313015**  
Battery pack 18 V, LiHD 5.5 Ah



Art. No. **123100**  
Battery charger ASC 55

# Original Lamello biscuit joiners

These properties make the difference

## Features

**Multifunctional stop square** included in the kit

### Both sides flush surfaces

The baseplate, swivelling front and stop square are flush on both sides of the machine for efficient positioning of the biscuit joiner on the work piece's outer edge



**Vertical stability** by attaching to the baseplate to increase the surface



**Perfect precision of mitres** by applying on the outer surface for 22.5 and 45° angles



**Variable positioning of the groove** from the application surface 0-50 mm

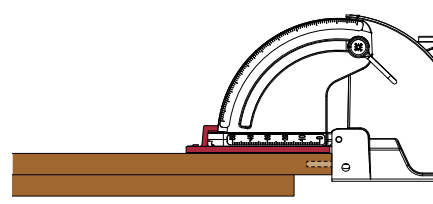
### Swivelling front with fixed rotational point

**Exactly the same referencing distances from either the swivelling front or the base plate = 8 mm**

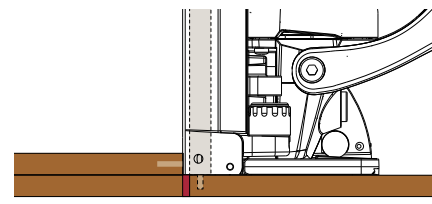
Allows alternating the application surface from the swivelling front **1.** to the baseplate **2.** Especially important when cutting thin dividing panel connections



- **Safe process** guarantees always precise, parallel grooves
- **No inaccuracies or source of mistakes** because the height cannot be adjusted



**Application with the swivelling front**  
With the 4 mm spacer for 12 mm dividing panel (groove in the centre)



**Application with the baseplate**  
The dividing panel (moved by 4 mm) serves as application surface

### High-precision machined application surfaces



- **CNC machined high-precision application surfaces** for exact application on the workpiece



- **Long-life precision guide** provides exact, parallel grooves for perfect fit of the workpieces

# Versatile use ...

... with various connecting elements.

Join workpieces at different angles and in different joining methods with the Classic X and Top 21. Suitable for individual pieces of furniture as well as prototypes and line production.

## With 4 mm Lamello System groove cutter



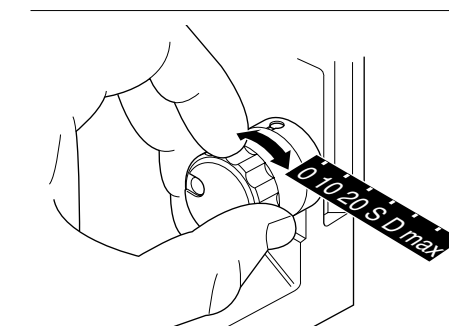
## With 8 mm Lamello System groove cutter



## With 3 mm Lamello System groove cutter



## Lamello depth adjustment system



0	Depth 0	no. 0
10	Depth 10	no. 10, C10
20	Depth 20	no. 20, E20-L, K20, C20
S	Depth S	E20-H, Simplex
D	Depth D	Clamex S-18, E20-L
max	Depth max	H9 (incl. spacer), E20-L

## Technical information

Overview of connectors + grooves (scale 1:1)

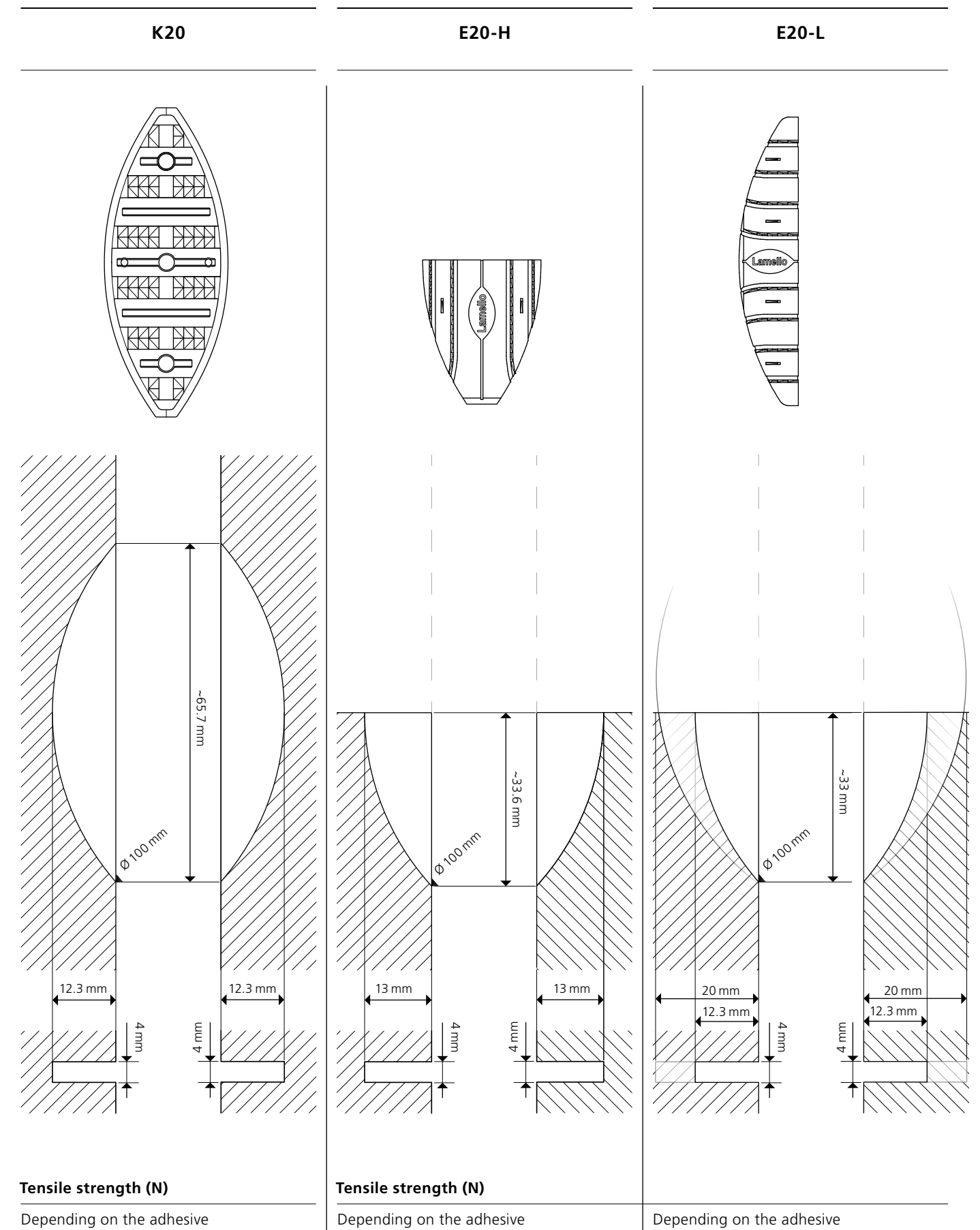
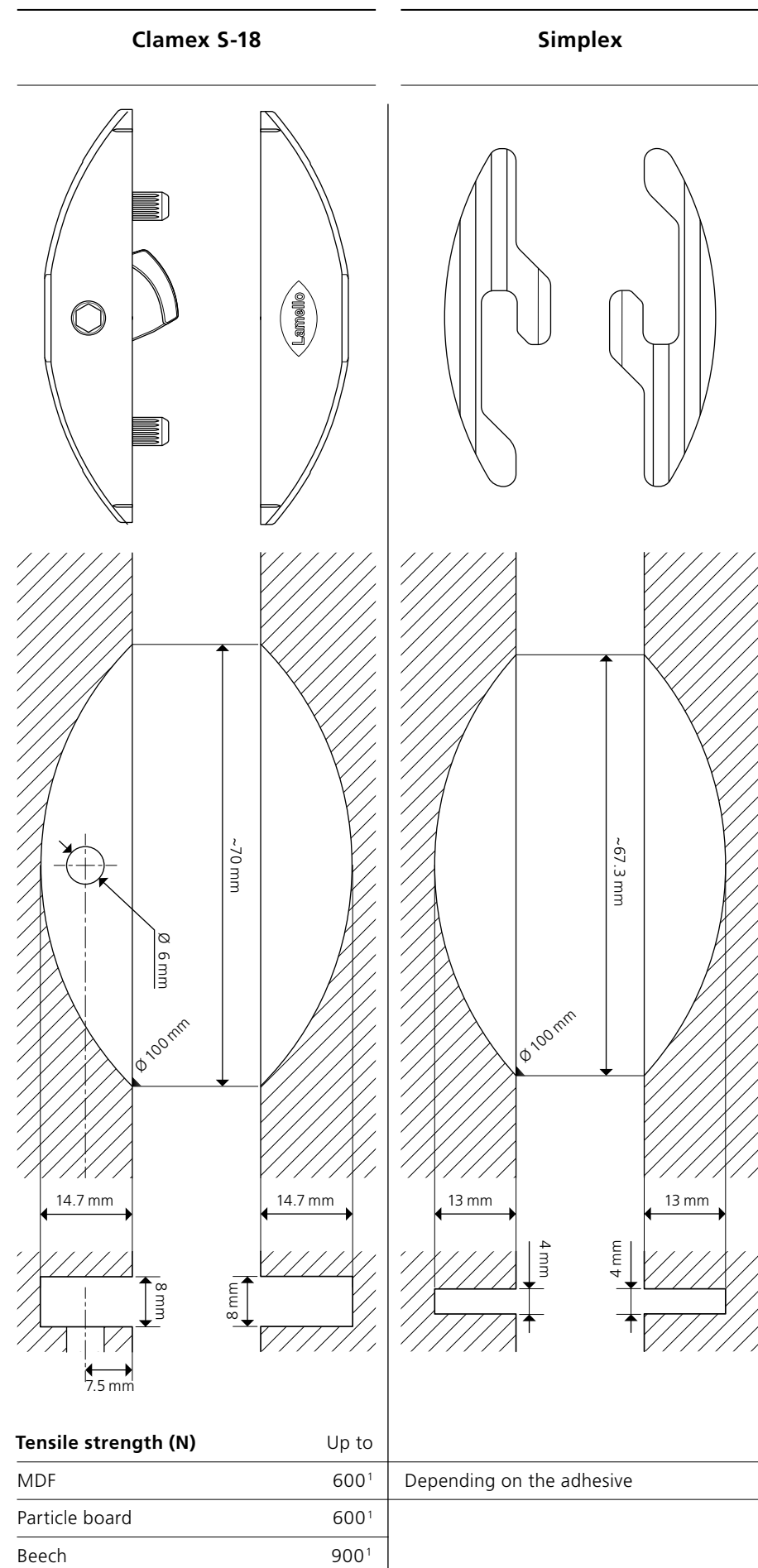
Original wood biscuit 20	Original wood biscuit 10	Original wood biscuit 0
<p><b>Tensile strength (N)</b> Depending on the adhesive</p>	<p>Depending on the adhesive</p>	<p>Depending on the adhesive</p>

Original wood biscuit H9	C20	C10
<p><b>Tensile strength (N)</b> Depending on the adhesive</p>	<p><b>Tensile strength (N)</b> Depending on the adhesive</p>	<p>Depending on the adhesive</p>



## Technical information

Overview of connectors + grooves (scale 1:1)



# Accessories / Spare Parts

Lamello System

## Lamello System



**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.  
5 mm, aluminium for 18 mm panels **253027**  
2 mm, plastic for 16 mm panels **253023**  
4 mm, plastic for mitres **253026**



**Systainer3 M187** Art. No. **331579**  
Systainer3 M187, empty  
Insert with two partitions **360023**  
for Systainer3 M 187  
Divider for insert 360023 **360019**  
Insert Systainer3 M187 **360020**  
for Zeta P2/Top21/Classic X



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



**Z6 alternating teeth, without hub, with spacer for Classic X** Art. No. **132106**



**Groove cutter HW (carbide), Ø 78 × 3 × Ø 22 mm** Art. No. **132009**  
Z4, 4 Screw holes, with hub for original wooden biscuit H9 for Zeta P2/Top 21/Classic X



**Groove cutter HW (carbide) with reversible blades, Ø 100 × 4 × Ø 22 mm** Art. No. **132001**  
Z2 + V2, 4 screw holes with hub for Zeta P2/Top 21/Classic X  
Set of 4 pieces **132111**  
Countersunk screws **352408T**  
Allen key, 4 mm **271959L**



**Groove cutter HW (carbide) with reversible blades, Ø 100 × 4 × Ø 22 mm** Art. No. **132130**  
Z4 + V4, 4 screw holes without hub, with spacer for Zeta P2/Top 21/Classic X  
Set of 10 pieces main teeth **132134**  
Set of 10 pieces scoring teeth **132135**  
Replcement set, 4 scoring teeth + 4 main teeth **132133**  
Screws **352130**  
Torx key **352133**



**Groove cutter HW (carbide) with reversible blades, Ø 100 × 8 × Ø 22 mm (Clamex S-18 connector)** Art. No. **132108**  
Z4 + V4, 4 screw holes for Top 20/Top 21/Classic X  
Set of 10 pieces scoring teeth **132137**  
Set of 10 pieces main teeth **132136**  
Replcement set, 4 scoring teeth + 4 main teeth **132114**



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

## Batteries



**Battery pack 18 V, LiHD 4.0 Ah** Art. No. **313013**



**Battery pack 18 V, LiHD 5.5 Ah** Art. No. **313015**



**Battery charger ASC 55** Art. No. **123100**

# Accessories/ Spare Parts

Lamello System

## Lamello System



**Slide shoe for biscuit joiner** Art. No.  
To protect the wall and the machine **251057**  
for Zeta P2/Top 21/Classic X



**Carbide tipped saw blades HW (carbide)**  
**for expansion gaps, Ø 100 × 2.4 × Ø 22 mm** Art. No.  
Z20, 4 screw holes, 2 spacers **132350**  
for Zeta P2/Top 21/Classic X



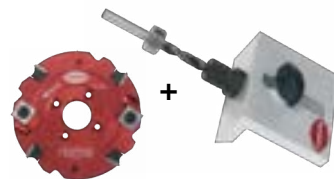
**Accessories for saw blades** Art. No.  
Spacer, Ø 40 × 1 × Ø 22 mm **322510**  
with screw holes  
for Zeta P2/Top 21/Classic X



Art. No.  
Flange M8 to saw blades **252502**



**Clamex S drill jig** Art. No.  
Clamex S drill jig 30°–150°, **125240**  
with 6 mm drill complete



**Clamex S-18 set** Art. No.  
Drill jig for 30°–150° incl. drill and carbide **125250**  
tipped groove cutter  
with drill jig and cutter  
includes 1 set 125240 and 1 piece 132108

## Clamping set parts



**Clamps** Art. No.  
5 m clamping strap **175005**  
8 m clamping strap **175008**  
10 m clamping strap **175010**



**Buckle for clamps** Art. No.  
1 piece, without strap **175060**



**Polyester strap for clamps** Art. No.  
1 roll of 50 m **175050**



Art. No.  
Per meter m<sup>1</sup> **335000**



**Tension hooks** Art. No.  
2 pieces **175200**



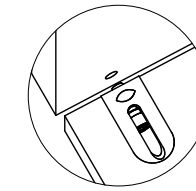
**Profile sections** Art. No.  
4 pieces, length 12 cm **175401**  
4 pieces, length 40 cm **175402**  
4 pieces, length 60 cm **175403**

# Drilling System

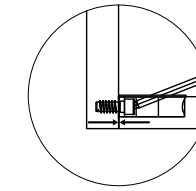
Unique drilling systems for high demands on productivity and aesthetics



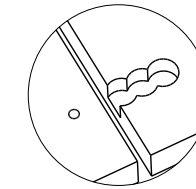
## Features Cabineo



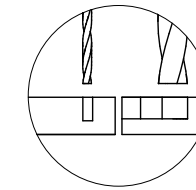
Fast assembly



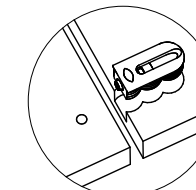
High clamping force



No edge drilling

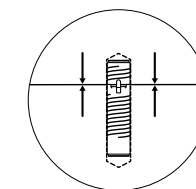


No dowel holes

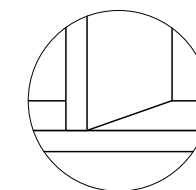


One-piece and pre-installed

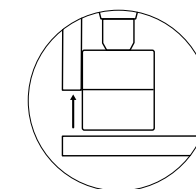
## Features Invis Mx2



High clamping force



Invisible



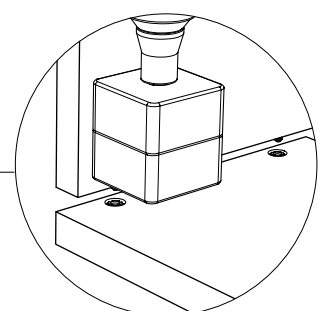
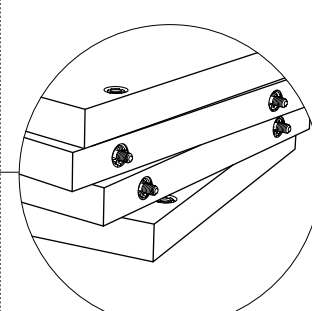
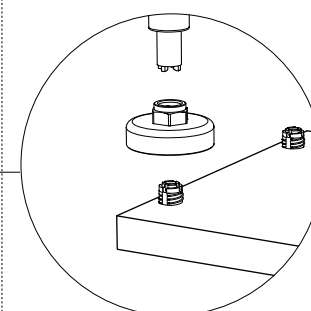
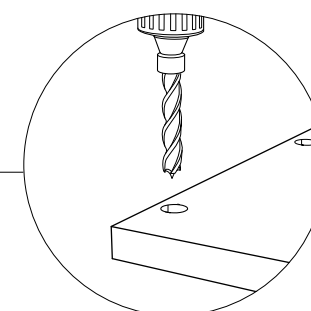
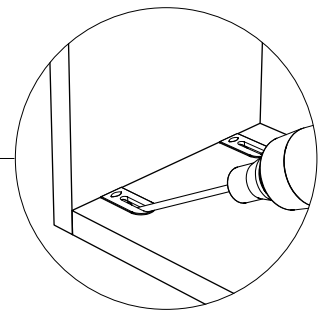
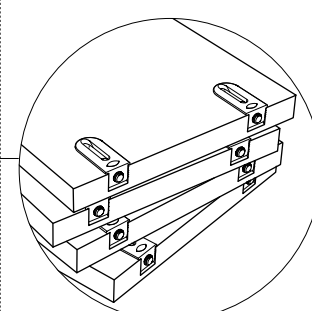
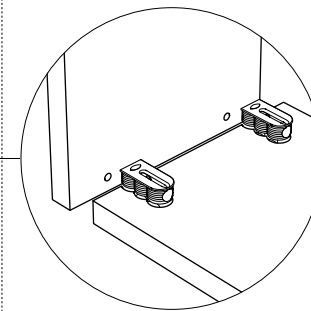
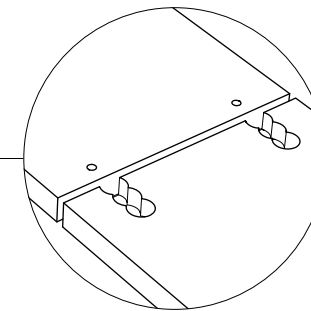
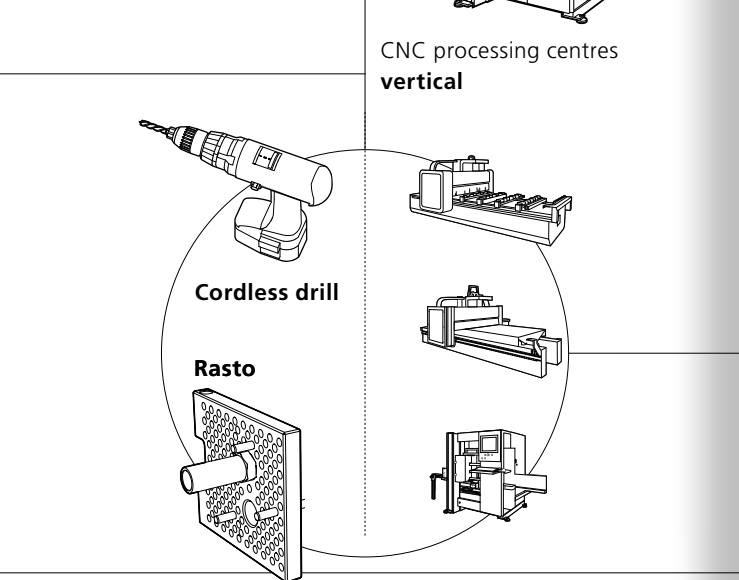
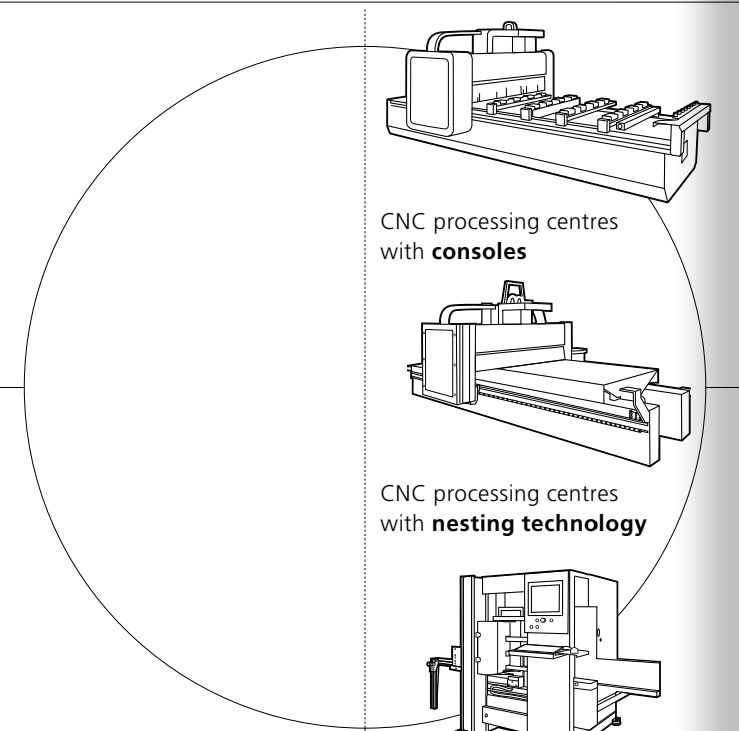
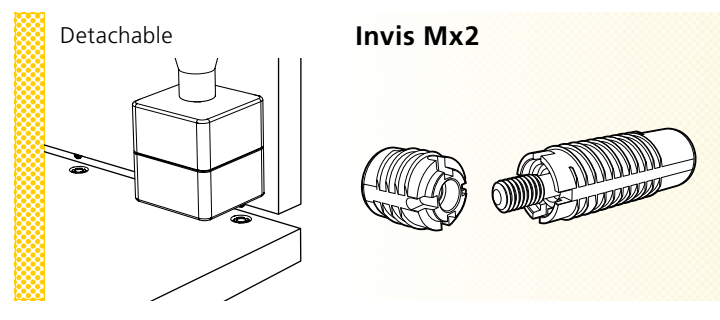
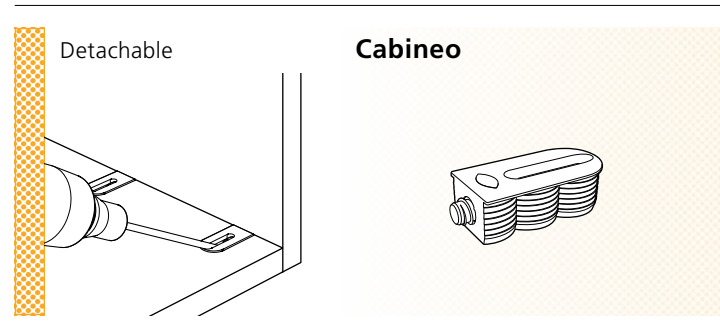
Detachable

# Drilling System

- Cabineo
- Invis Mx2

Overview

Joining methods	Connector	Machines		Sequence			
		Power tool	CNC machines	1 Processing	2 Connector insertion	3 Deliver flat pack	4 Assembly





*« The fitting impressed us due to its simple processing, time-saving assembly, detachability and high clamping force. »*

Karl Lenhart jun., Owner, Lenhart joinery in the Tyrolean uplands

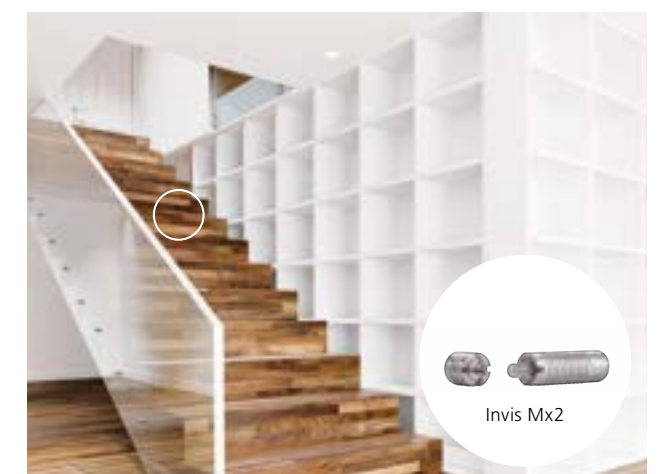
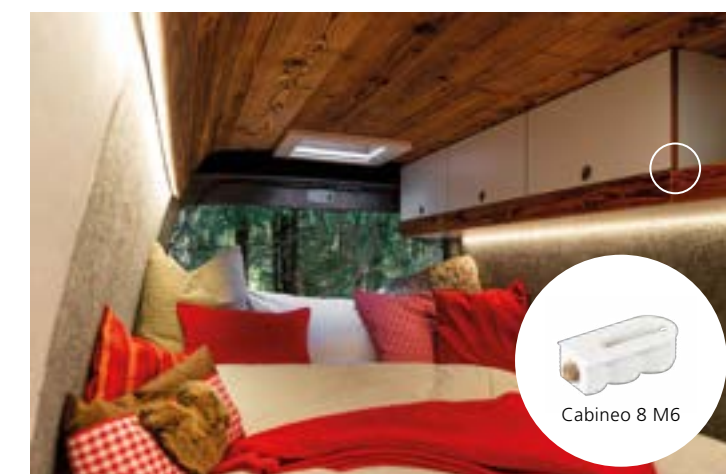
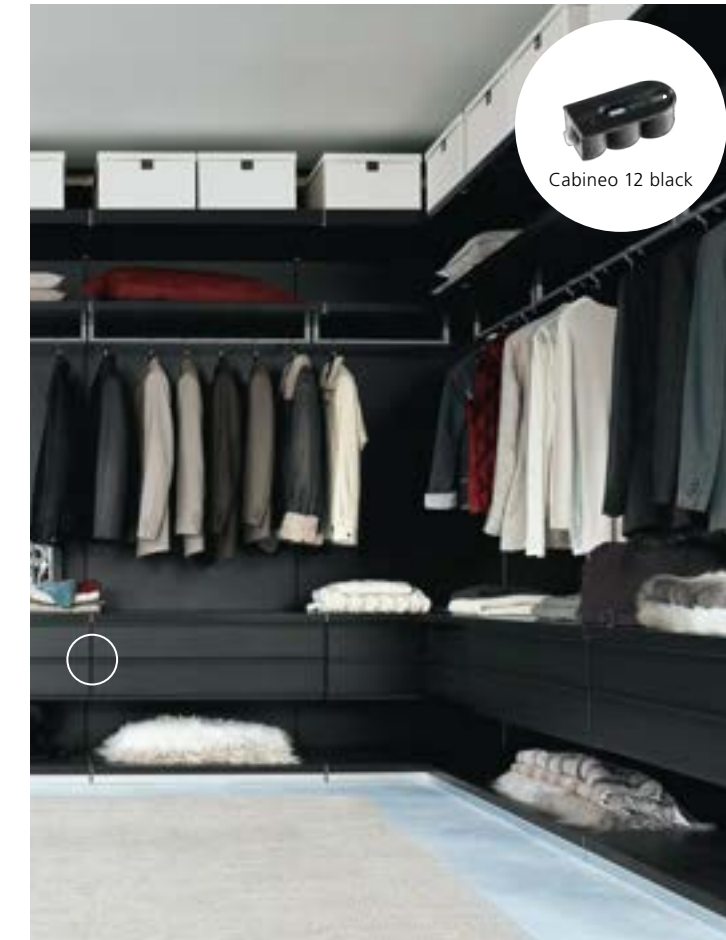
# Drilling System

Applications

## Furniture manufacturing



## Interior fitting



# Drilling System

Applications

## Kitchen manufacturing



## Commercial joinery



## Shop fitting

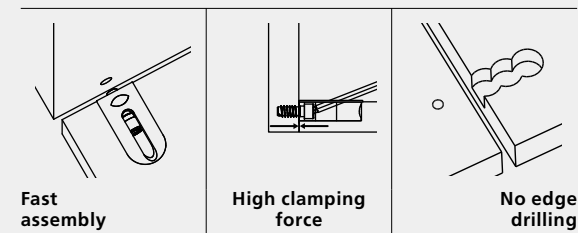


# Cabineo 12

Time-saving cabinet connector for corner joints from 13 mm



## Features



Cabineo 12 is a one-piece cabinet connector which can be used with all CNC machines because only surface machining is required. The Cabineo is installed in the board either in the workshop or on site. The pre-assembled screw in the connector is screwed into the 5 mm hole of the second workpiece using a cordless drill. Cabineo impresses with its time-saving processing and assembly as well as the high clamping force which leads to stable connections without the need for additional dowels. Cabineo is available in white or black.

## Articles



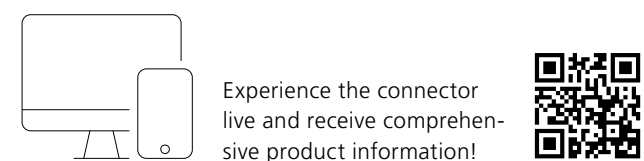
<b>Cabineo 12</b>	Art. No.
500 pieces	<b>186320</b>
2000 pieces	<b>186321</b>



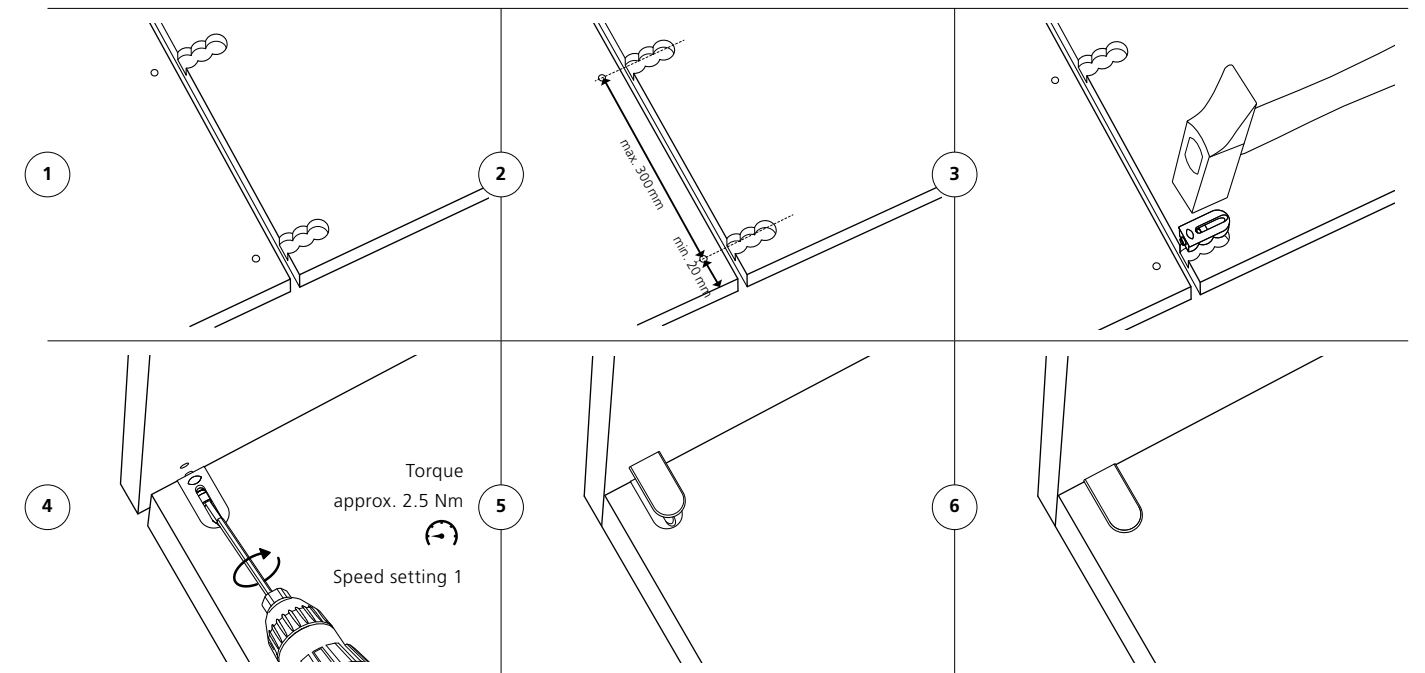
<b>Cabineo 12 black</b>	Art. No.
500 pieces	<b>186330</b>
2000 pieces	<b>186331</b>

<b>Cabineo 8/12 Starter set</b>	Art. No.
Cabineo 8 + 12 (40 pieces each), incl. Cabineo hex bit and set of cover caps (40 pieces)	<b>186305</b>

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



## Function



## Technical data

<b>Joining methods</b>	Size	33.8 × 16.5 × 10.8 mm		
	Screw length	12 mm		
	Cutter	Ø 12 mm or smaller		
	Drill	Ø 5 mm and Ø 15 mm		
	Material housing	Fiberglass reinforced plastic		
	Installation tolerance	Long. ± 0.1 mm		
	Strength per connector without dowel (N)			
	Particle board 19 mm Up to	Tensile strength (N)	Shear strength	Clamping force
		900 <sup>1</sup>	850 <sup>1</sup>	900 <sup>1</sup>
		10 N ~ 1 kg		
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

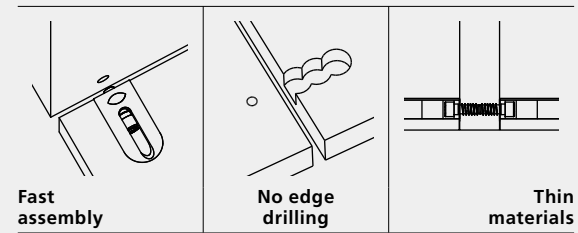
See PAGE 146–147 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# Cabineo 8

Time-saving cabinet connector for centre panels from 16 mm



## Features



Cabineo 8 is a one-piece cabinet connector which can be used with all CNC machines because only surface machining is required. The Cabineo is installed in the board either in the workshop or on site. The pre-assembled screw in the connector is screwed into the 5 mm hole of the second workpiece using a cordless drill. Cabineo impresses with its time-saving processing and assembly as well as the high clamping force which leads to stable connections without the need for additional dowels.

## Articles



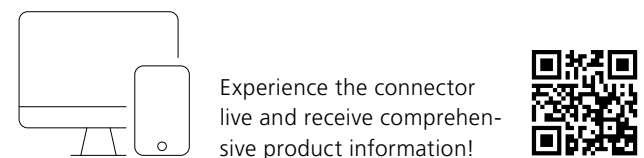
<b>Cabineo 8</b>	Art. No.
500 pieces	<b>186310</b>
2000 pieces	<b>186311</b>



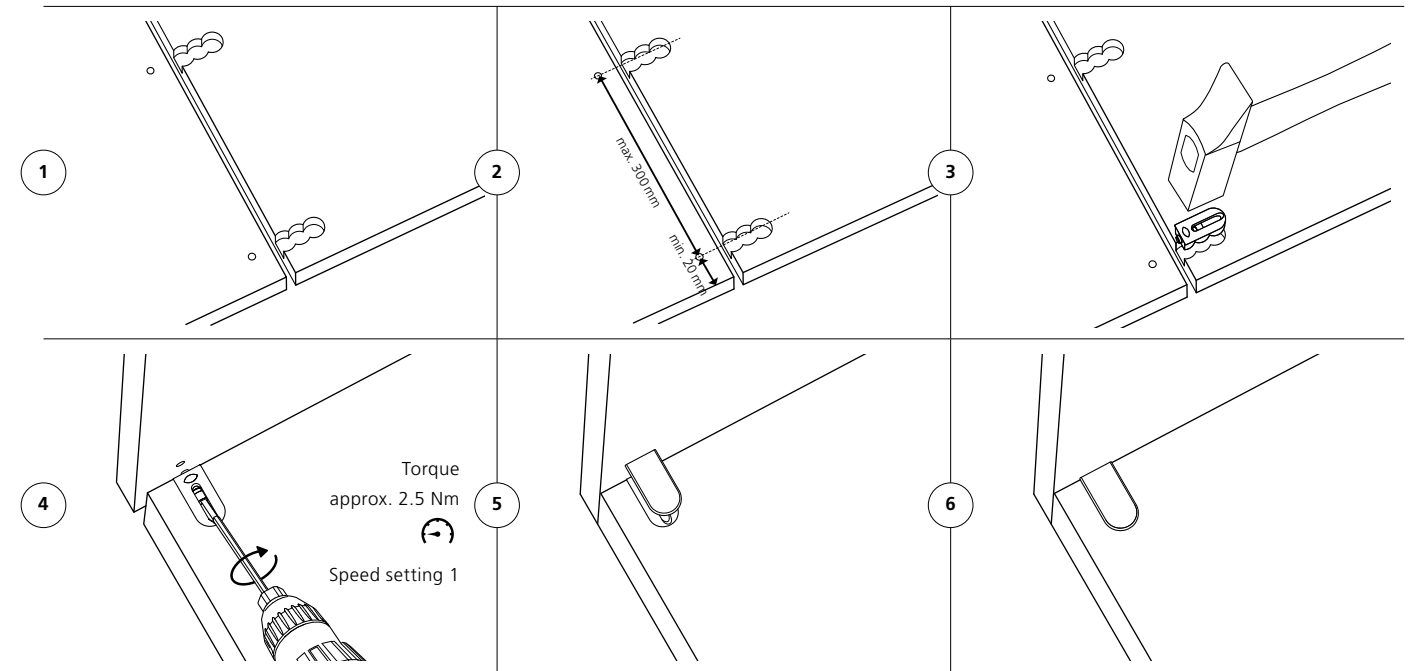
<b>Cabineo 8 black</b>	Art. No.
500 pieces	<b>186340</b>
2000 pieces	<b>186341</b>

<b>Cabineo 8/12 Starter set</b>	Art. No.
Cabineo 8 + 12 (40 pieces each), incl. Cabineo hex bit and set of cover caps (40 pieces)	<b>186305</b>

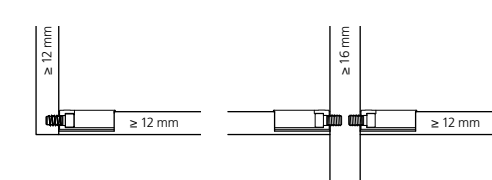
[www.lamello](http://www.lamello)



## Function



## Technical data

<b>Joining methods</b>	Size	33.8 × 16.5 × 10.8 mm		
	Screw length	8 mm		
	Cutter	Ø 12 mm or smaller		
	Drill	Ø 5 mm and Ø 15 mm		
	Material housing	Fiberglass reinforced plastic		
	Installation tolerance	Long. ± 0.1 mm		
	Strength per connector without dowel (N)			
	Particle board 19 mm Up to	Tensile strength (N)	Shear strength	Clamping force
		500 <sup>1</sup>	550 <sup>1</sup>	500 <sup>1</sup>
		10 N ~ 1 kg		
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See PAGE 146–147 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# Cabineo 8 M6

Wear-resistant cabinet connector for various materials and increased strength



## Features



Cabineo 8 M6 is a one-piece cabinet connector which can be used with all CNC machines because only surface machining is required. The connector is ideal when joining wood composites with materials such as aluminium, steel or compact laminate.

After installing the connector in the board, the pre-assembled metric screw is screwed into a threaded hole or a socket, using a cordless drill.

Cabineo impresses with its time-saving processing and assembly as well as the high clamping force which leads to stable connections without the need for additional dowels. Cabineo is available in white or black.

## Articles



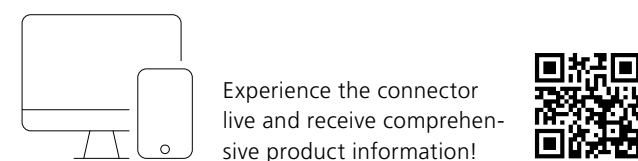
<b>Cabineo 8 M6</b>	Art. No.
500 pieces, metric thread M6	<b>186315</b>
2000 pieces, metric thread M6	<b>186316</b>



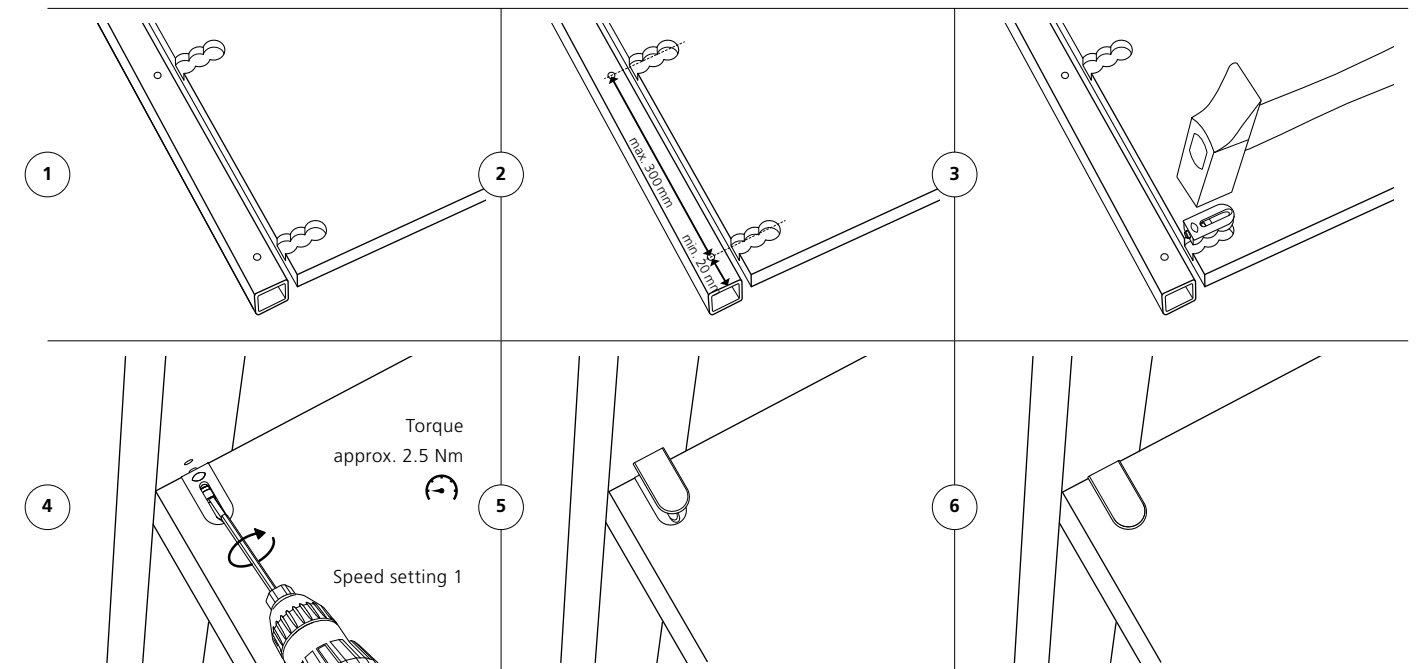
<b>Cabineo 8 M6 black</b>	Art. No.
500 pieces, metric thread M6	<b>186345</b>
2000 pieces, metric thread M6	<b>186346</b>

<b>Cabineo 8 M6 Starter set</b>	Art. No.
Cabineo 8 M6 (80 pieces), insert and cover caps (40 pieces each), Cabineo insertion tool (1 piece), Cabineo hex bit 1/4" (1 piece)	<b>186306</b>

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



## Function



## Technical data

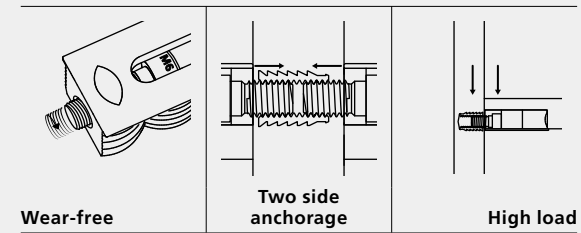
Joining methods	Size	33.8 × 16.5 × 10.8 mm		
	Screw length	8 mm		
	Cutter	Ø 12 mm or smaller		
	Drill	Ø 15 mm		
	Screw thread	M6		
	Material housing	Fiberglass reinforced plastic		
	Installation tolerance	Long. ± 0.1 mm		
	Strength per connector without dowel (N)			
	In HPL 12 mm	Tensile strength (N)	Shear strength	Clamping force
	Up to	1700 <sup>1</sup>	1000 <sup>1</sup>	1700 <sup>1</sup>
		10 N ~ 1 kg		
	Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See PAGE 146–147 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# Cabineo insert M6

For repeated assembly and disassembly without loss of strength

## Features




The Cabineo insert M6 is a threaded insert to drive in, which can be used in combination with the Cabineo 8 M6. It is ideal for applications where the thread cannot be cut directly into the workpiece or to increase the strength in corner and dividing panel joints. The Cabineo insert M6 is hammered into the through-hole of the middle panel so that the Cabineo can reach into the insert from both sides. The same connector and insert can be used everywhere for corner and dividing panels.



## Articles

Cabineo insertion tool is included in delivery for the inserts.


	<b>Cabineo insert M6 x 12.3</b>	Art. No.
100 pieces		<b>186370</b>
500 pieces		<b>186371</b>

	<b>Cabineo insert M6 x 15.3</b>	Art. No.
100 pieces, for dividing panels		<b>186375</b>
500 pieces, for dividing panels		<b>186376</b>

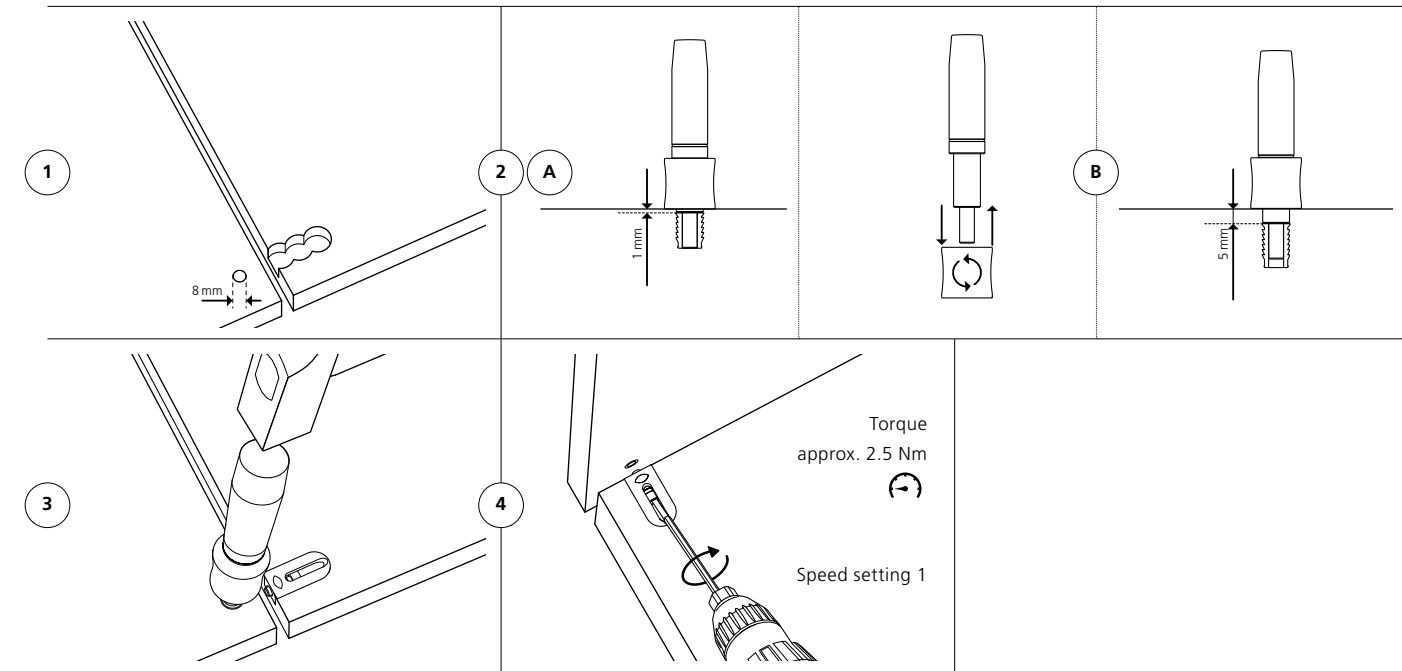
	<b>Cabineo insert insertion tool</b>	Art. No.
For insert M6		<b>276310</b>

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

Experience the connector live and receive comprehensive product information!

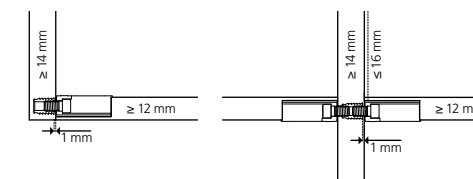



## Function

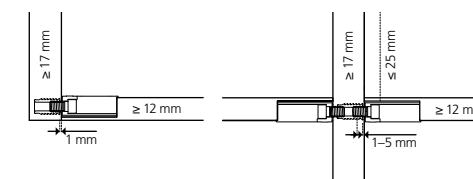


## Technical data

### Joining methods



Cabineo insert M6 x 12.3 for material thickness 14–16 mm



Cabineo insert M6 x 15.3 for material thickness 17–25 mm

Size	12.3/15.3 x 9.3 x 9.3 mm		
Thread	M6		
Drill hole	Ø 8 mm		
Material	Brass		
Installation tolerance	Long. ± 0.1 mm		
Strength per connector without dowel (N)			
Particle board 19 mm Up to	Tensile strength (N)	Shear strength	Clamping force
Insert M6 x 12.3	750 <sup>1</sup>	1050 <sup>1</sup>	750 <sup>1</sup>
Insert M6 x 15.3	900 <sup>1</sup>	1200 <sup>1</sup>	900 <sup>1</sup>
	10 N ~ 1 kg		
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See PAGE 147 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

# Advantages of Cabineo

Simple, fast and strong

# Cabineo compared with cam and dowel

## 1. Advantages in production

Time-saving in production



- Optimised process due to surface machining; no edge drilling necessary
- Only one tool change from 5 mm to 15 mm drill; no tool change for the dowel hole drill necessary
- No dowel holes means less drill holes per connector
- Shallow element of 10 mm allows for panels from 12 mm thickness

## 2. Advantages in transportation

Time-saving in transportation



- Efficient pre-installation of the one-piece connector in the factory
- Flat pack delivery with pre-installed connectors
- No extra bags or loose hardware required with furniture shipment
- Detachable for transport or if the fixed shelves need adjusting

## 3. Advantages in assembly

Time-saving in the assembly



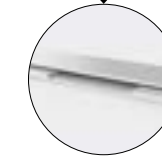
- One-piece connector without dowels; no pre-assembly of screws or dowels in the side panels necessary
- Easy positioning of the Cabineo in the corresponding hole due to the protruding screw
- Fast assembly with a cordless drill
- Installation of fixed shelves or vertical dividers in an already assembled unit



4 surface processing steps  
1 tool change



Fit Cabineo into top or bottom shelf



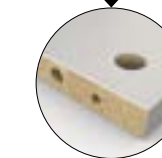
Flat pack the workpieces



Assemble using a cordless drill



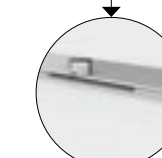
3 surface processing steps  
2 tool changes



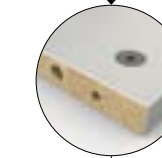
2 edge drill holes  
1 tool change



Prepare fitting bag



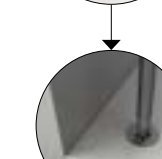
Flat pack the workpieces



Insert cam into shelf



Install the screw in the side



Insert dowel into the side



Assemble using a screwdriver

# Examples of manufacturing and assembly processes

Cabineo



Flatpack workpiece delivery with pre-assembled connector.



Place furniture side on base. The element is correctly positioned by the protruding screw.



Join furniture elements with cordless drill and Cabineo tool. Easy, fast working with preset torque approx. 2.5 Nm.



Position top and push towards the furniture side.



Screw front corner in place with a cordless drill. This makes one-man assembly easy.



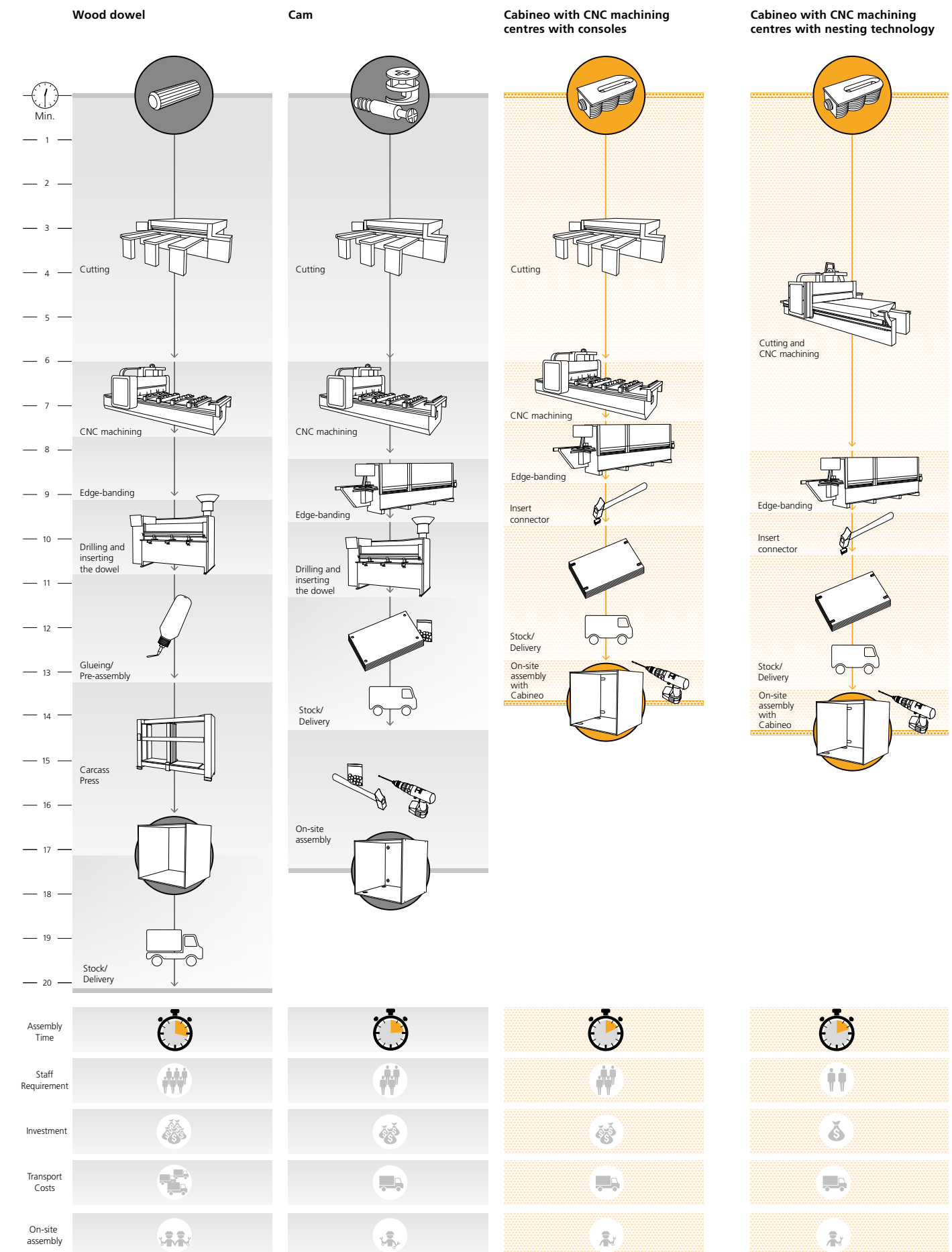
After assembly, fasten the fixed intermediate shelves in the required positions.



- Tip:
- Place one side of the shelf on the shelf support and fasten the other side
  - Retract the screw to facilitate installation.



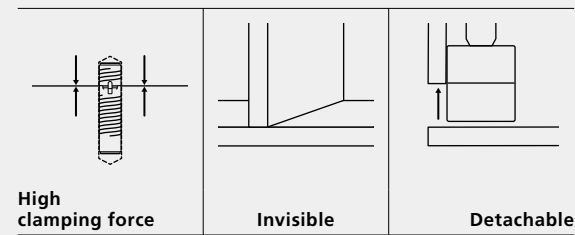
If required, use cover caps on the Cabineo.



# Invis Mx2

Magnet-driven connecting fittings

## Features

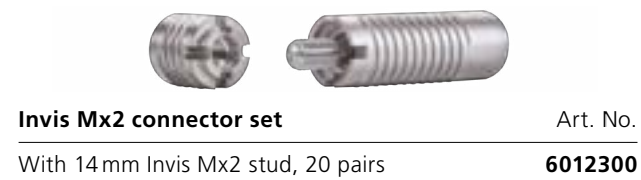


Invis Mx2 is a unique, magnet-driven connection for the highest demands on aesthetics, stability and productivity. With no visible openings, Invis Mx2 is connected and disconnected quickly again and again, using its magnetic drive.

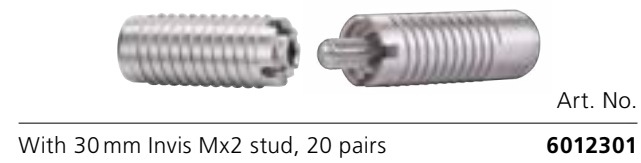
Invis Mx2 connectors are screwed into the 12 mm drill holes in the panel. Using the MiniMag with a cordless drill, the connection closes and creates a clamping force of up to 250 kg per connector.

Ideal for high gloss painted furniture, molded workpieces, stairs, etc.

## Articles



**Invis Mx2 connector set** Art. No. **6012300**  
With 14 mm Invis Mx2 stud, 20 pairs



Art. No. **6012301**  
With 30 mm Invis Mx2 stud, 20 pairs



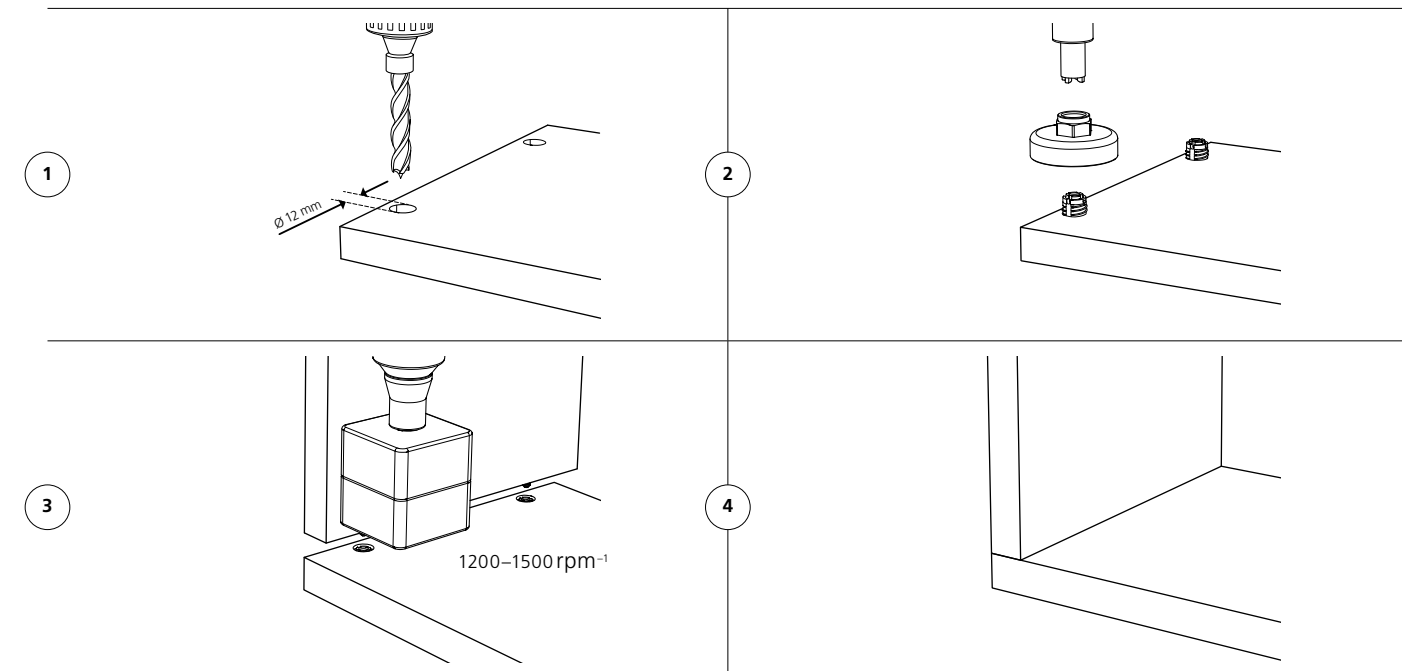
**Invis Mx2 Starter set** Art. No. **6100300**  
Invis Mx2 MiniMag, Invis Mx2 connector sets, 20 pairs, with 14 mm Invis Mx2 stud, Rasto drill jig with 12 mm drill bit, depth adjuster, bushing, screw bit, flexible shaft, insertion jig

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

Experience the connector live and receive comprehensive product information!



## Function



## Technical data

Joining methods		Size connector	Ø 12 × 35 mm
		Size stud	Ø 12 mm × 30/14 mm
		Size centre-wall stud	Ø 12 mm × 30 mm
		Drill	Ø 12 mm
		Speed MiniMag	Must be 1200–1500 rpm <sup>-1</sup>
		Material housing	Zinc
		Installation tolerance	Long. ± 0.1 mm
		Clamping force per connector	250 kg <sup>1</sup>
		Tensile strength (N) Up to	Connector sets with stud
			14 mm    30 mm
			MDF    1500 N <sup>1</sup> 4000 N <sup>1</sup>
			Particle board    600 N <sup>1</sup> 1600 N <sup>1</sup>
			Beech    2000 N <sup>1</sup> 4000 N <sup>1</sup>
			Spruce    1000 N <sup>1</sup> 2000 N <sup>1</sup>
		Material range	Particle board, MDF, plywood, softwood, hardwood etc.

See PAGE 148–149 for technical specifications | <sup>1</sup> See comment on load limits on PAGE 195

## Articles



**Invis Mx2 connector 35 mm**

20 pieces

Art. No.

**6012317**



**Invis Mx2 stud 14 mm**

20 pieces

Art. No.

**6012312**



**Invis Mx2 stud 30 mm**

20 pieces

Art. No.

**6012309**



**Invis Mx2 centre wall stud 10-30 mm**

10 pieces

Art. No.

**6012208**



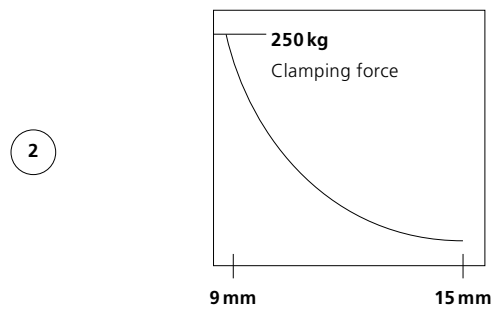
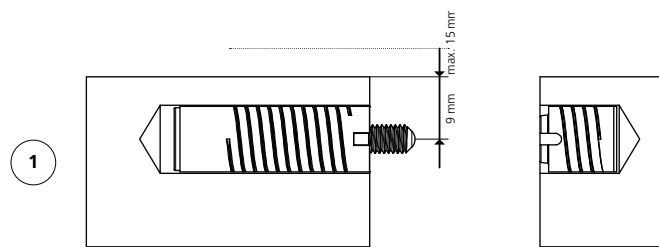
**Invis Mx2 MiniMag**

Incl. screw bit

Art. No.

**6100301**

## Function



Small distance from the edge for high clamping force



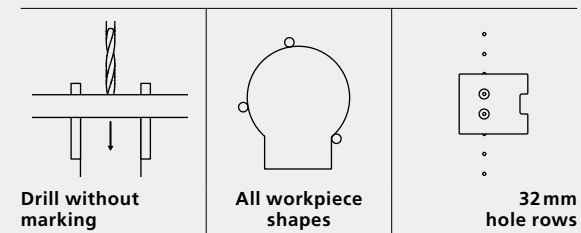


# Rasto drill jig

Universal drill jig without measuring or marking



## Features



Rasto is a universal drilling jig and is used for creating precise drilled holes for Invis Mx2. The drilling jig can be clamped onto almost any workpiece shape by means of three positioning pins without measuring or marking. After the first workpiece has been drilled, the position is transferred unchanged to the second workpiece. Working in this way means the holes will always line up with each other.

Rasto is also suitable for 8 mm dowel holes or 5 mm holes for handles or for row hole drilling.

## Articles

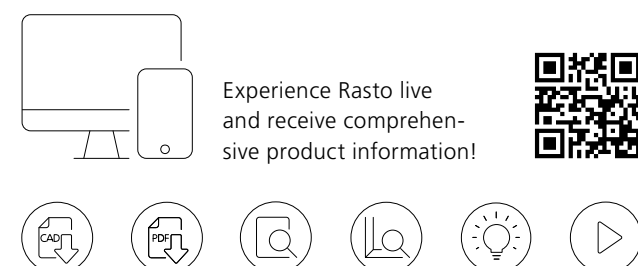


**Rasto Duo set** Art. No. **126002**  
 In a systainer: 2 transparent perforated plates,  
 8 drill bushings, 2 × Ø 5, 8, 10, 12 mm,  
 3 wood drill bits Ø 5, 8, 12 mm, 6 positioning bolts,  
 2 fastening screws, 1 connection rod,  
 1 Invis Mx2 spacer, 1 Invis Mx2 insertion bush

**Rasto Basic set** Art. No. **126005**  
 In a cardboard box: 1 transparent perforated plate,  
 4 drill bushings Ø 5, 8, 10, 12 mm,  
 3 positioning bolts, 1 fastening screw

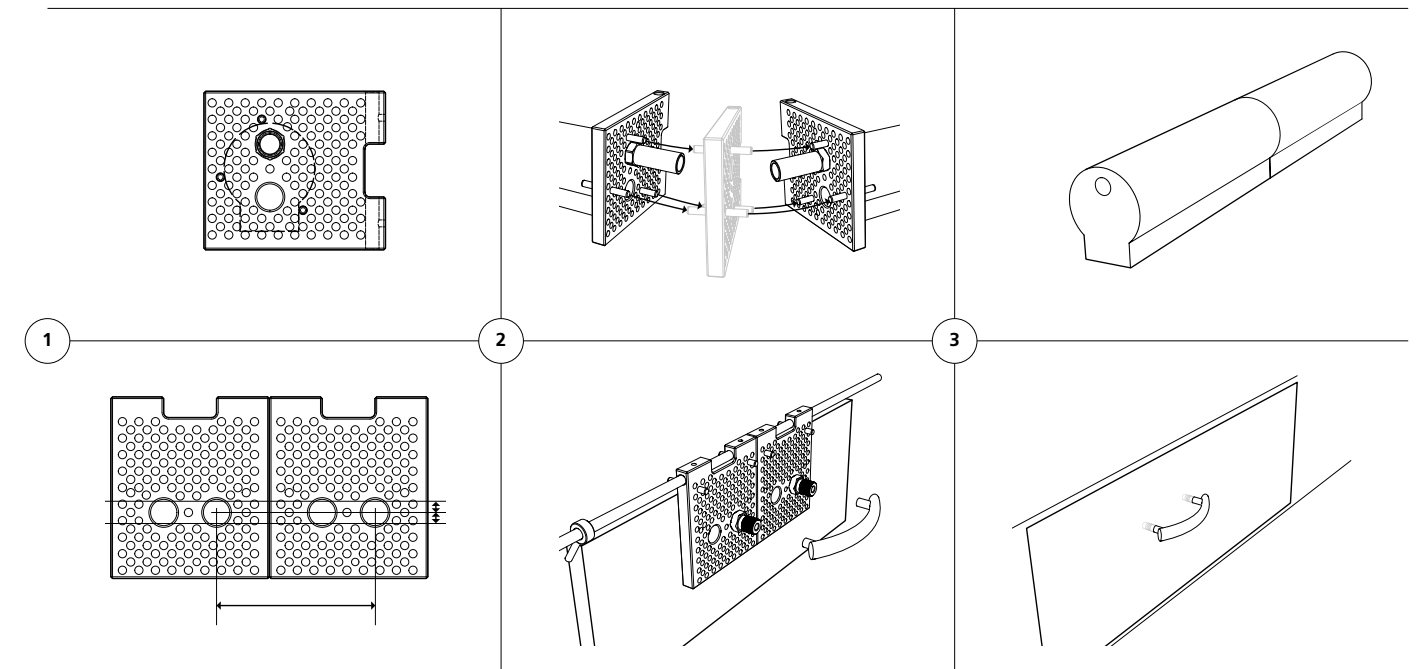
**Rasto Mono set** Art. No. **126001**  
 In a systainer: 1 transparent perforated plate,  
 4 drill bushings Ø 5, 8, 10, 12 mm, 3 wood drill bits  
 Ø 5, 8, 12 mm, 3 positioning bolts, 1 fastening screw,  
 1 Invis Mx2 spacer, 1 Invis Mx2 insertion bush

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



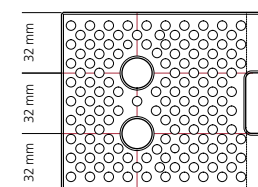
Experience Rasto live and receive comprehensive product information!

## Function



## Technical data

<b>Rasto perforated plate</b>	Size Rasto plate	110 × 96 × 12 mm
	Material Rasto plate	Polycarbonate

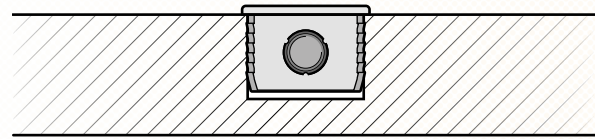


# Technical information

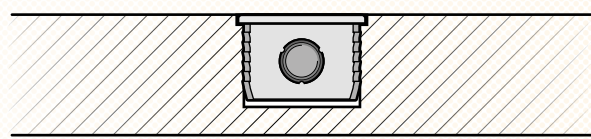
## Machining Cabineo

Installation options

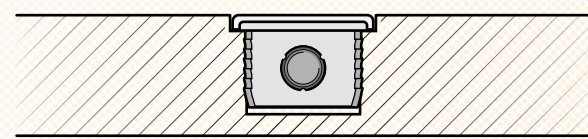
On the surface



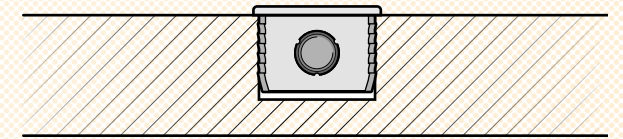
Flush with the surface



Flush cover cap

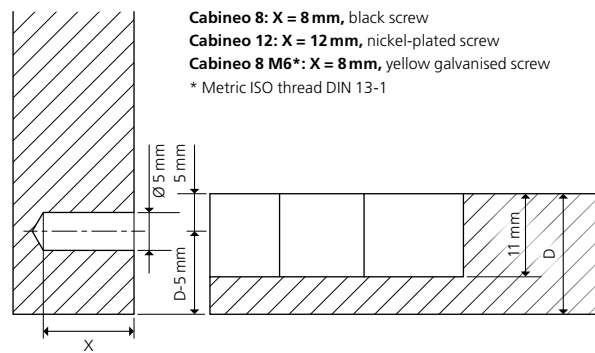


HPL on the surface

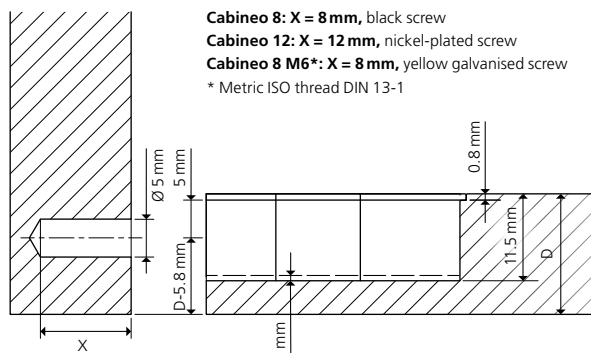


Machining options

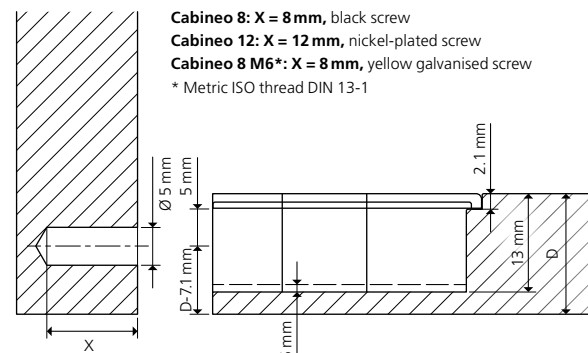
**Cabineo 8: X = 8 mm**, black screw  
**Cabineo 12: X = 12 mm**, nickel-plated screw  
**Cabineo 8 M6\*: X = 8 mm**, yellow galvanised screw  
 \* Metric ISO thread DIN 13-1



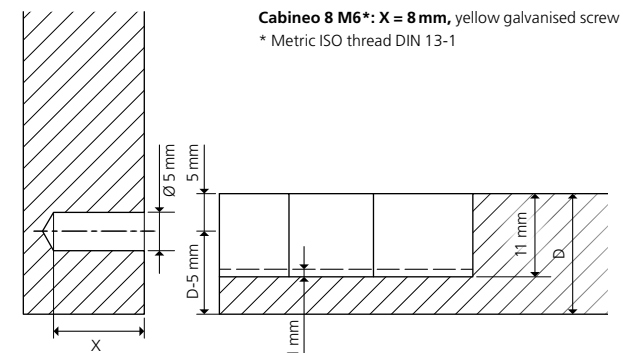
**Cabineo 8: X = 8 mm**, black screw  
**Cabineo 12: X = 12 mm**, nickel-plated screw  
**Cabineo 8 M6\*: X = 8 mm**, yellow galvanised screw  
 \* Metric ISO thread DIN 13-1



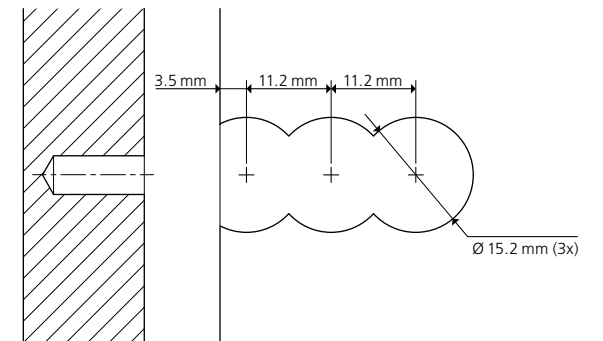
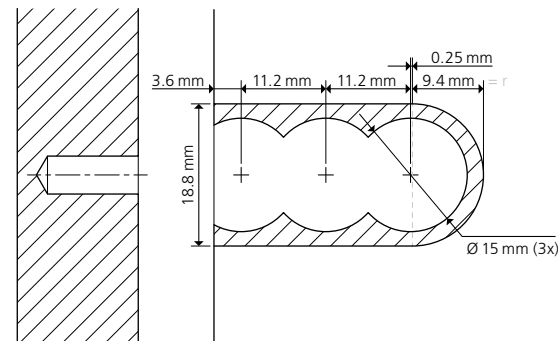
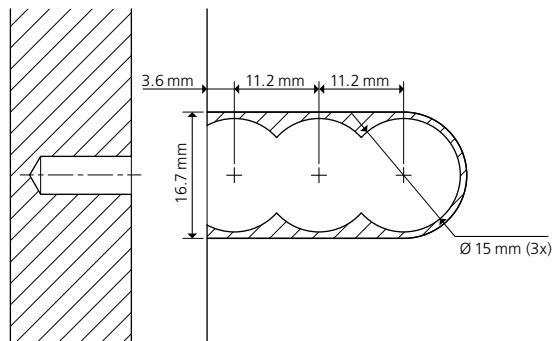
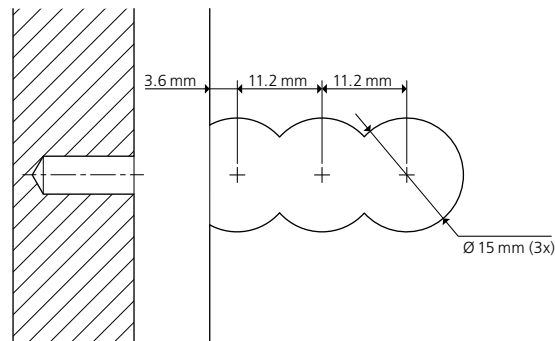
**Cabineo 8: X = 8 mm**, black screw  
**Cabineo 12: X = 12 mm**, nickel-plated screw  
**Cabineo 8 M6\*: X = 8 mm**, yellow galvanised screw  
 \* Metric ISO thread DIN 13-1



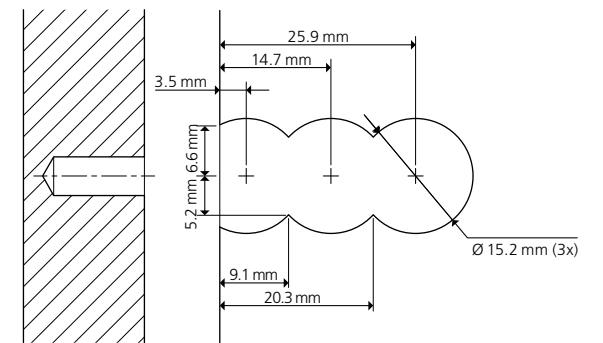
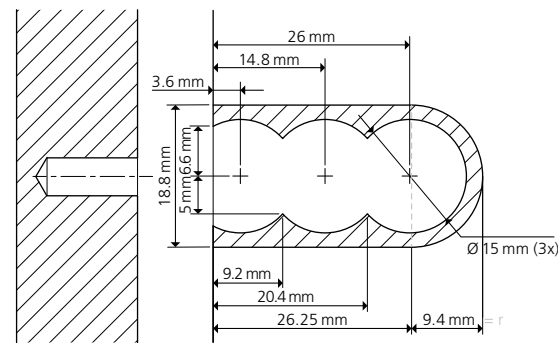
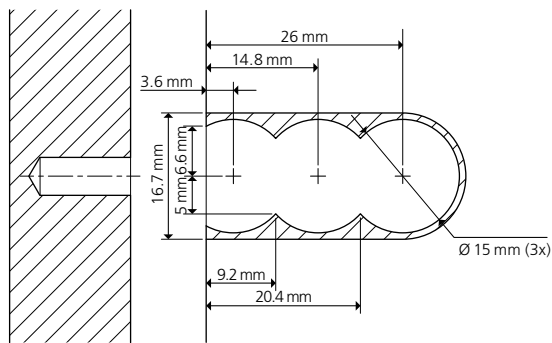
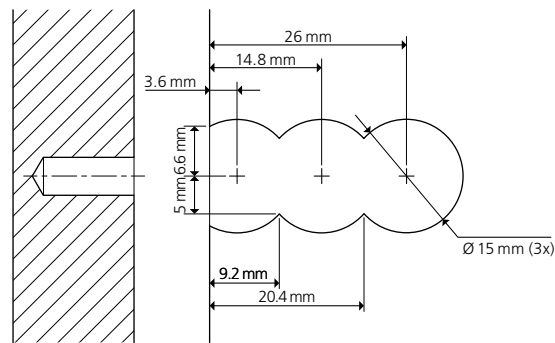
**Cabineo 8 M6\*: X = 8 mm**, yellow galvanised screw  
 \* Metric ISO thread DIN 13-1



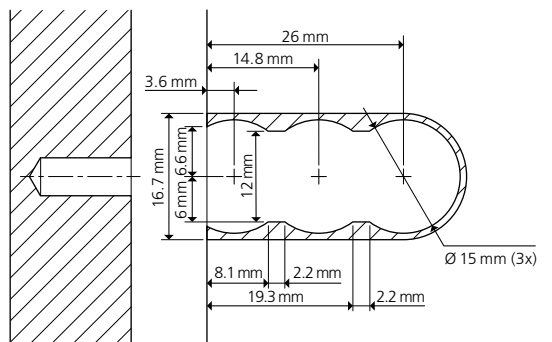
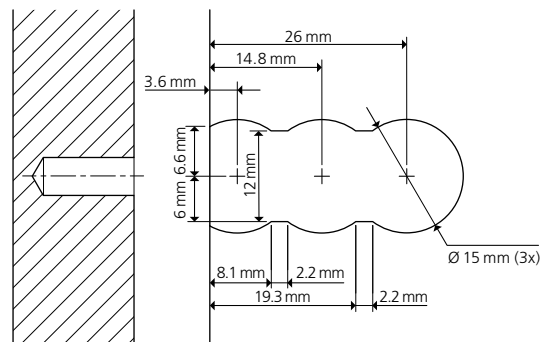
Drill 15 mm



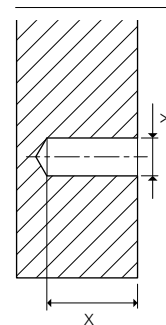
Cutter Ø 10 mm



Cutter Ø 12 mm



Machining Cabineo Insert



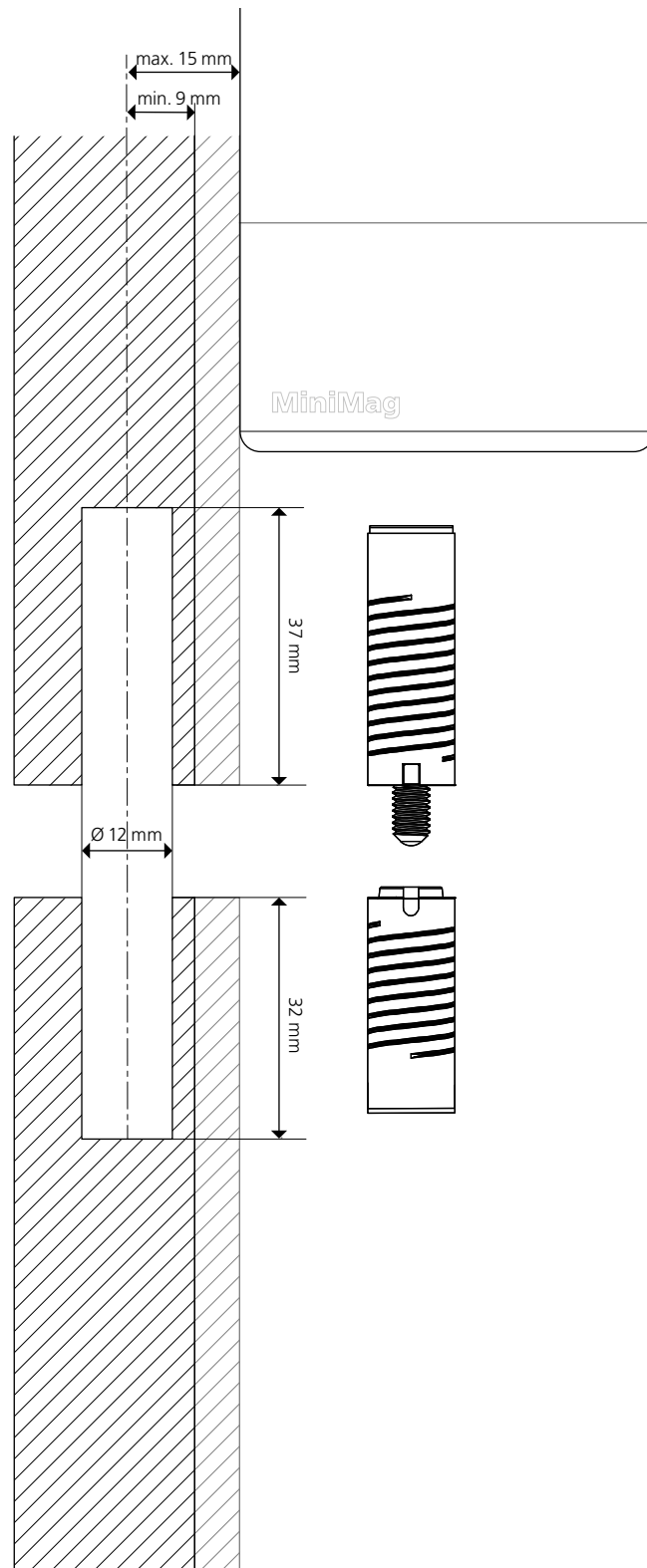
	X [mm]	Y = Ø [mm]
Cabineo 8 M6*	8	5
Insert M6 × 12.3	13.5	8
Insert M6 × 15.3	16.5	8

\* Metric ISO thread DIN 13-1

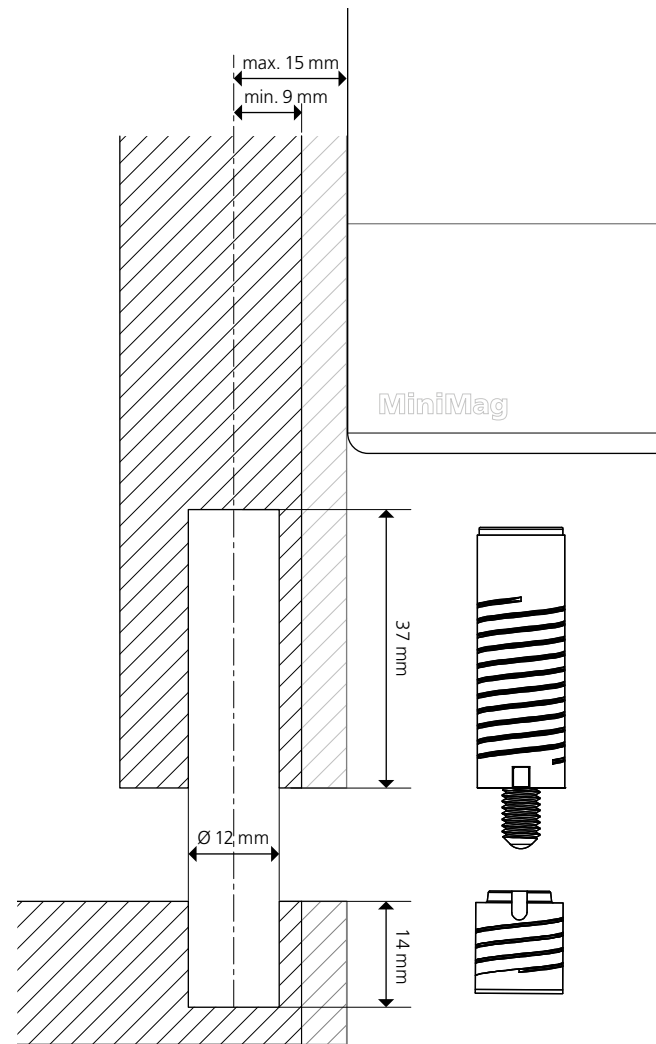
# Technical information

## Machining Invis Mx2

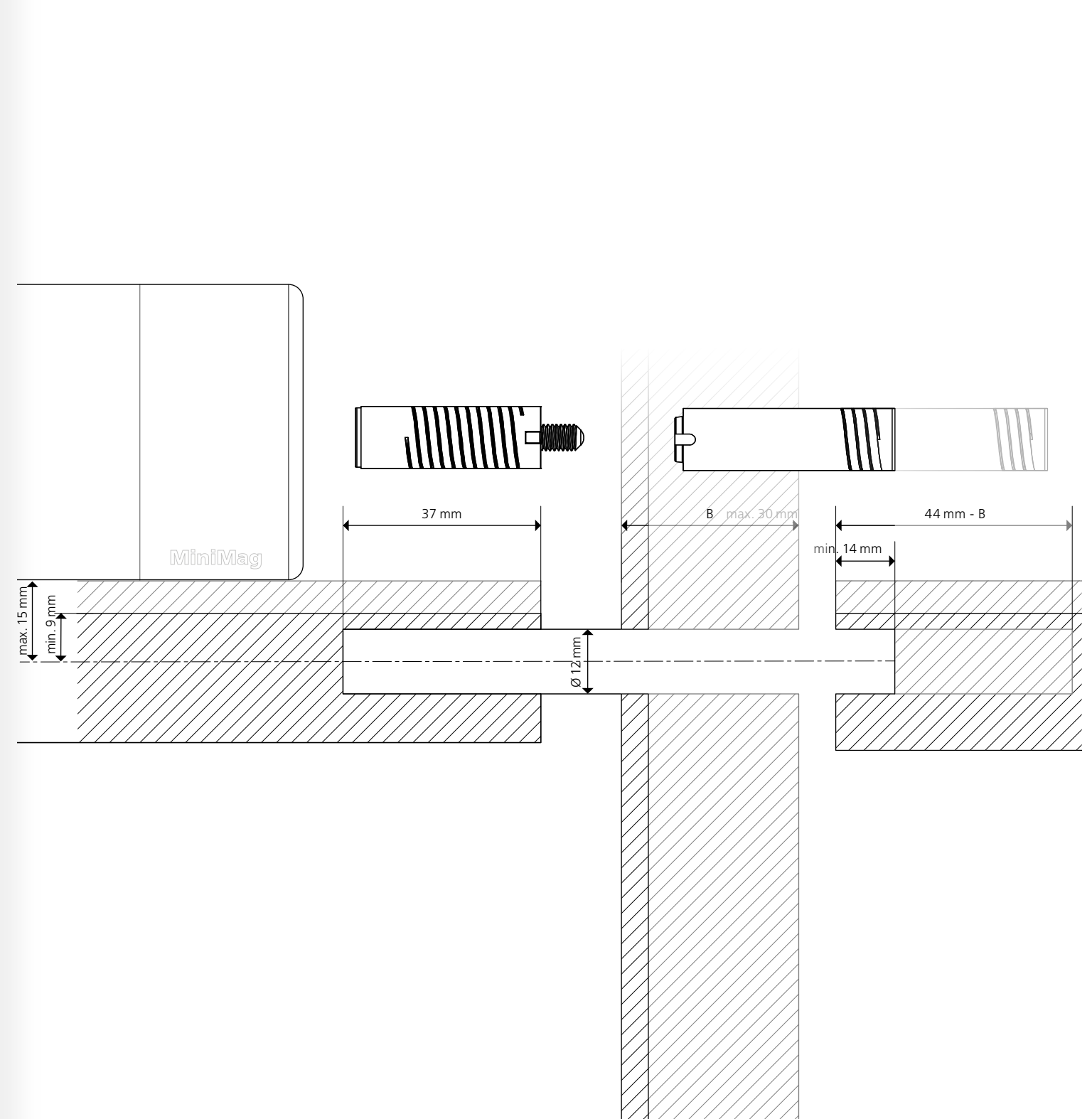
Invis Mx2 stud 30 mm



Invis Mx2 stud 14 mm



Invis Mx2 centre wall stud 14–30 mm



# Accessories / Spare Parts

Drilling System



## Cabineo



**Cabineo installation tool** Art. No.  
With handle, incl. hex bit 1/4" **256300**



Cabineo hex bit 1/4" Art. No.  
**276312**



Cabineo hex bit 1/4" GL 80 mm Art. No.  
**276308**

Cabineo hex bit 1/4" GL 80 mm, 100 pieces **276309**



**Cabineo drill/cutter** Art. No.  
Cabineo drill Ø 15 mm with short centering point **136312**



Cabineo cutter Ø 10 mm Art. No.  
**136310**



Cabineo cutter Ø 12 mm Art. No.  
**136311**



Cabineo drills for aggregate\* Ø 15 mm Art. No.  
RH carbide tipped (right hand rotation) **136314**



Cabineo drills for aggregate\* Ø 15 mm Art. No.  
LH carbide tipped (left hand rotation) **136315**



	Art. No.	
	100 pieces	2000 pieces
RAL 9003 signal white	<b>186350S</b>	<b>186351S</b>
RAL 9010 pure white	<b>186350W</b>	<b>186351W</b>
RAL 9018 papyrus white	<b>186350P</b>	<b>186351P</b>
RAL 1015 light ivory	<b>186350H</b>	<b>186351H</b>
RAL 1011 brown beige	<b>186350B</b>	<b>186351B</b>
RAL 8007 fawn brown	<b>186350R</b>	<b>186351R</b>
RAL 7040 window grey	<b>186350F</b>	<b>186351F</b>
RAL 7005 mouse grey	<b>186350A</b>	<b>186351A</b>
RAL 9005 jet black	<b>186350T</b>	<b>186351T</b>
Metal look, silver	<b>186350C</b>	<b>186351C</b>
Metal look, nickel	<b>186350N</b>	<b>186351N</b>
Metal look, dark steel	<b>186350D</b>	<b>186351D</b>



**Cabineo insert insertion tool** Art. No.  
For insert M6 **276310**

# Accessories / Spare Parts

Drilling System

## Invis Mx2



<b>Invis Mx2 screw bit</b>	Art. No.
1 piece	<b>6112205</b>



<b>Invis Mx2 MiniMag</b>	Art. No.
Incl. screw bit	<b>6100301</b>



<b>Invis Mx2 flexible shaft</b>	Art. No.
1 piece	<b>6100204</b>



<b>Invis Mx2 insertion jig</b>	Art. No.
For studs 14 mm	<b>6112333</b>



<b>Invis Mx2 insertion bush for Rasto</b>	Art. No.
For studs 14 mm	<b>6112330</b>

## Rasto



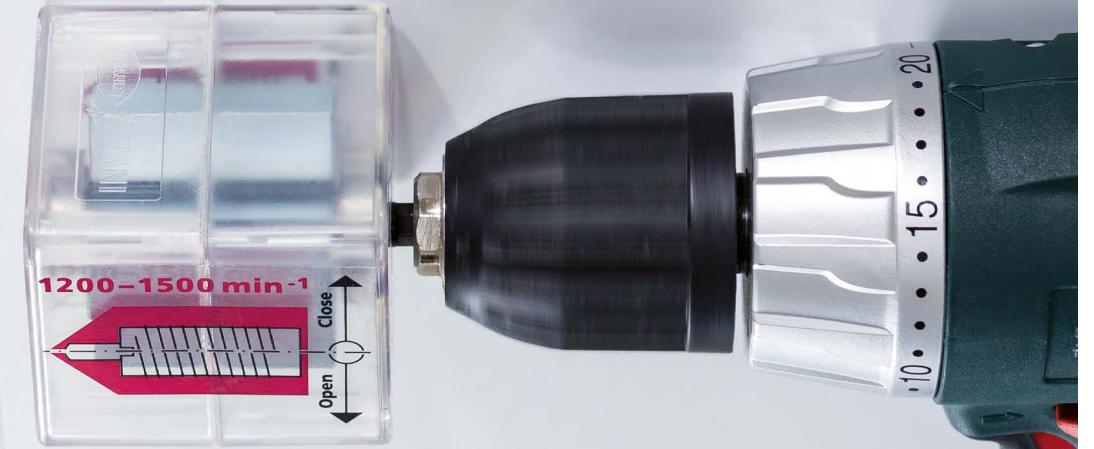
<b>Rasto wood drill bit with centering tip</b>	Art. No.
Ø 5 mm	<b>6100160</b>
Ø 6 mm	<b>6106161</b>
Ø 8 mm	<b>6108060</b>
Ø 10 mm	<b>6110162</b>
Ø 12 mm	<b>6112060</b>



<b>Rasto depth adjuster</b>	Art. No.
Ø 5 mm	<b>6100059</b>
Ø 6 mm	<b>6100063</b>
Ø 8 mm	<b>6100060</b>
Ø 10 mm	<b>6100064</b>
Ø 12 mm	<b>6100061</b>



<b>Invis Mx2 spacer</b>	Art. No.
For Rasto	<b>6112331</b>



<b>Rasto perforated plate</b>	Art. No.
1 piece	<b>6160000</b>



<b>Rasto drill bush</b>	Art. No.
Ø 5 mm	<b>6100065</b>
Ø 6 mm	<b>6100056</b>
Ø 8 mm	<b>6100057</b>
Ø 10 mm	<b>6100067</b>
Ø 12 mm	<b>6100058</b>



<b>Rasto fixing screw</b>	Art. No.
4.5 x 35 mm, TX 25	<b>6560450</b>



<b>Rasto positioning bolts</b>	Art. No.
Ø 5 x 40 mm	<b>6160001</b>



<b>Rasto connection rod 500 mm</b>	Art. No.
Two-part	<b>6160601</b>

# 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

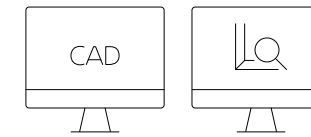




« If a product is automated – or can be controlled digitally – it will be used. »

Jochen Meier, Owner and Managing Director, Jochen Meier Schreinerei GmbH, Nürnberg, Germany

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)

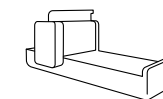
The degree of integration of the data and the parameterised position rules influence planning efficiency.



#### CAM software

- Software for generating CNC programming data
- Post-processor

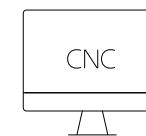
Data transfer between CAD and CNC, and in particular the control of the macros/component, must be individually coordinated.



#### CNC machine

- Machine with 3/4/5-axis

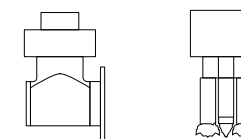
The number of axes and equipment options influence the processing possibilities



#### CNC software

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

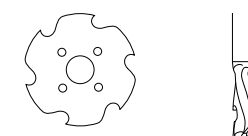
The macro/component determines/affects the processing possibilities



#### 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 Cabineo unit enables triple drilling in one stroke

The right unit can significantly increase efficiency when cutting/drilling connectors.



- Purchase tools from Lamello or a P-System tool partner
- You can find the tools recommended by Lamello on **PAGES 174–176**.

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

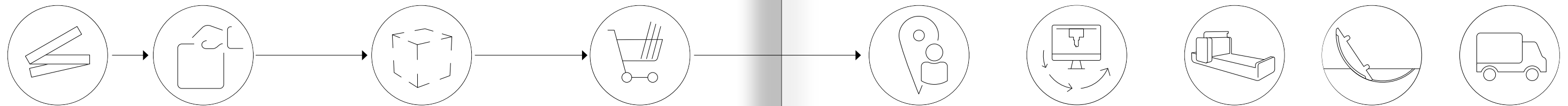
# Networked production

Overview of the production process

Enabled by Lamello planning and machining partners



Sequence								
1	2	3	4	5	6	7	8	9
Measurements	The proposal phase	Planning with CAD/configurator/ERP	The bill of material	Procurement	CAM interface CAD/CAM system CNC programming data	CNC machining	Final processing	Dispatch/assembly
				Lamello sales partners				



The room or the object to be machined can be quickly and efficiently measured on site using a room scanner and imported directly into CAD. Even in difficult room situations, without scaffolding, ladders or additional assistants.

The customer data is recorded, and the calculation and quote are prepared in the industry software, CRM or ERP. If necessary, photo-realistic drawing can also be created for the customer in order to create a life-like impression of the end product.

Here, the furniture is drawn with all individual parts, connectors and fittings or generated automatically using the configurator. In this phase, the planner can now select the desired Lamello connectors, which are placed manually or automatically in the workpieces according to parametric rules.  
 Planning aids on the Lamello website:  
 – The **«Connector Search»** web tool helps you select the right connectors  
 – The **«P-System Configurator»** defines the optimal connector positioning at any angle  
 – The **«CAD Data»** can also be downloaded from the product pages

The parts list can now be generated from the finished CAD file or the data can be imported into the ERP software, where the parts and fitting list can be issued automatically. The material order can now be triggered manually or automatically.

With an online connection to specialist retailers, both digital data exchange and procurement can be automated. For example, this allows the current prices to be queried, availability checked and picking implemented.

One of the most important **«interfaces»** is the transfer of planning data to production. Here, a seamless connection should be established between design, programming, simulation and subsequent production on the CNC machines. The 3D design data can also be used to enter the production information, such as the control of macros, the tool type, approach or cutting mode. The CAD data is translated, for example, via a post-processor into an electronic procedure for controlling CNC machines.

The workpieces are now formatted and machined on the machining centre. With the necessary macros for the appropriate units and cutting tools, the desired machining procedures for the connectors are now milled into the workpieces.

After CNC machining, or if the workpieces are ready for further processing, the edges are glued or the surface is painted and the connectors are then installed.

The items of furniture are now ready to be transported to the customer. Ideally, the furniture should be sent as a flat pack, which is no problem at all with the Lamello connectors.



# Service overview

Lamello's planning and machining partners



## Planning partners CAD/ERP/Configurator/CAM software

Company	2020	BRAINSOFTWARE	BormInformatik	CAD+T	cadwork	direkt CNC-system	HEXAGON	iFurn	imos						
<b>Product name</b>	2020 CAD	2020 CAD	SPAZIO3D PROF. + ENTERP. PLUS	SPAZIO3D JOINERY + INDUSTRY 4.0	Pointline CAD	BormBusiness/EVO	Design/Engineer	ERP/Konfigurator	CNC	Configurator	NC Hops	Alphacam	Cabinet Vision	iX CAD 2021	iX CAM 2021
<b>Offer / Material management / Ordering</b>	ERP software														
	Interface with procurement														*
	Interface with CAD														
<b>Visualisation / Planning / Construction / Parts list</b>	Interface with ERP														
	Data cloud for CAD data														
	CAD 2D software														
	CAD 3D software														
	Configurator														*
<b>CNC programming data</b>	Interface with CNC														
	CAD/CAM software														
	WOP programming software														
	ISO programming software														

Company	KCD Software	Kosmosoft	LIGNOCAM	OSD Datensysteme	PaletteCAD	PinCalc	PHYTA	Quality Industriale	Swiss-all-CAD	TopSolid	TrunCAD	extragroupe	rwdm.ch	Tibek	Eficad									
<b>Product name</b>	KCD Software	Smart CABINET	LIGNOCAM	ERP/PPS	CAD/CAM	Palette CAD	Palette CAM	ERP P123 Corpora	CAD/CAM P305	3D CAD	woodlab STUDIO	AutoCAD/ZWCAD/BricsCAD	Matrizen – Excel – CAM	Matrizen – ERP – Manager	Wood CAD	Wood CAM	TrunCAD	VECTORWORKS	rwdm.ch	SmartWOP	SWOOD Design	SWOOD Service Center	SWOOD CAM/Nesting	
<b>Offer / Material management / Ordering</b>																								
<b>Visualisation / Planning / Construction / Parts list</b>																								
<b>CNC programming data</b>																								

# Service overview

Lamello's planning and machining partners



## Machining partners CNC machines/Aggregates/CNC tools

Company	AES	Biesse	Felder	GANNOMAT	HOLZ-HER	Holzfraese	Homag	KOMO	IMA	INFOTEC	Masterwood	SCM, Morbidelli	Vitap	Atemag	Benz Tools	GROTHEFELD	HSD	Leitz	Leuco	Oertli	Utensiltecnica	
<b>Product name</b>	CNC machines AesWOP	CNC machines bSolid NC Hops bCabinet	CNC machines F4Integrate Wood Flash	CNC machines GANNOMAT Editor	CNC machines NC Hops CabinetControl NEO 3D-Master	CNC machines SmartWOP Macchine CNC WoodWOP cabinetCreator		CNC machines CNC machines IMAWOP	CNC machines	CNC machines Masterwork/Master 3D	CNC machines Maestro CNC Xylog Plus	CNC machines Software TPA		Various	Various	Various	Various	Various	Various	Various	Various	Various
<b>Offer / Material management / Ordering</b>	ERP software																					
	Interface with procurement																					
	Interface with CAD																					
<b>Visualisation / Planning / Construction / Parts list</b>	Interface with ERP																					
	Data cloud for CAD data																					
	CAD 2D software																					
	CAD 3D software																					
	Configurator																					
<b>CNC programming data</b>	Interface with CNC																					
	CAD/CAM software																					
	WOP programming software																					
	ISO programming software																					
<b>CNC machining</b>	CNC with consoles																					
	CNC vertical/horizontal (compact)																					
	CNC nesting																					
	Aggregates																					
	CNC tools																					

# 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° 											
	Access drill hole 45° 											
	Access drill hole 22–108° 											
	Access drill hole 22–108° 											



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 175</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 174/175</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 shaft 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 shaft tool 131342 or <b>collet chuck</b> for clamping Ø 12 x 40 mm and shaft tool 131342  P-System CNC shaft tool cutter on <b>PAGE 175.</b>

\* More information on **PAGES 174–175**

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.

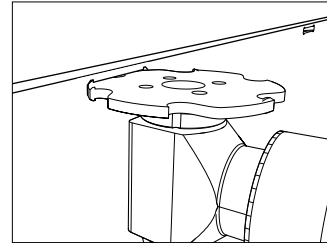
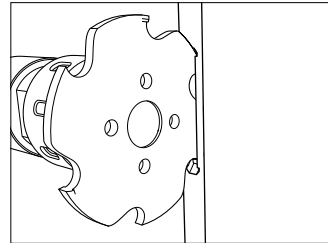
Possible combination of CNC machines with Zeta P2

More regarding the machining on **PAGE 171**

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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**

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 2.1**  
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

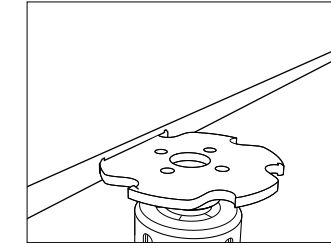
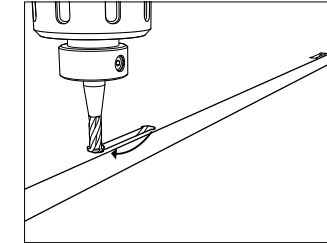
1 · 2 · 3



**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 shaft tool  
cutter\* in HSK63F  
1x drill Ø 6 mm  
  
\*optional for P-System CNC  
shaft 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 shaft tool  
cutter  
1x drill Ø 6 mm

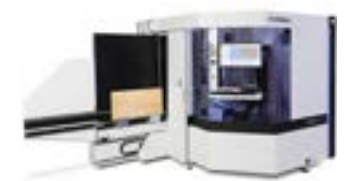
1 · 2 · 3



**HOMAG**

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

1 · 2 · 3



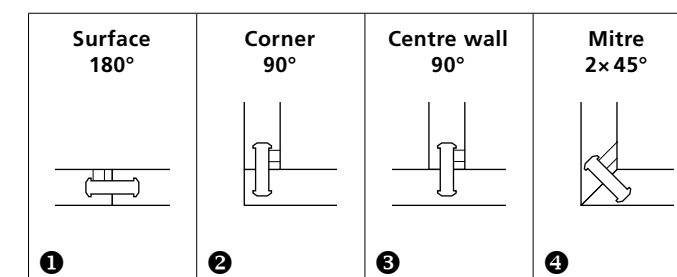
**HOMAG**

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

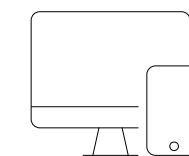
additionally for  
45° joints:  
2x aggregate 45°  
1x tool set for 45°

1 · 2 · 3 · 4

Connectivity



www.lamello

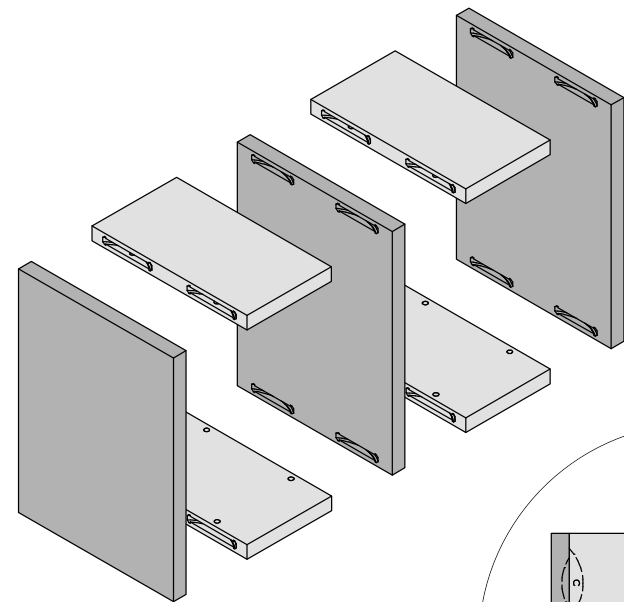


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receive comprehensive  
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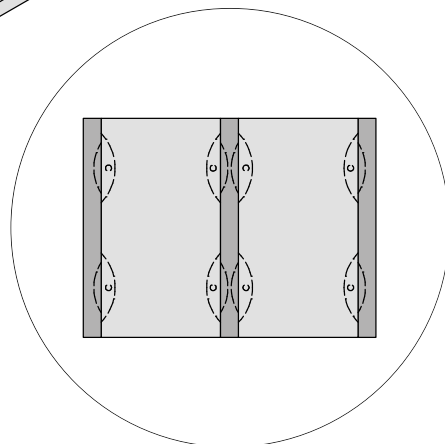


# Ideas for standardising

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

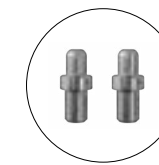
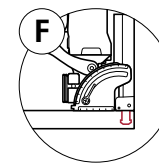
<b>Clamex P-10</b>	Art. No.
2000 pieces element without lever	<b>145358</b>

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

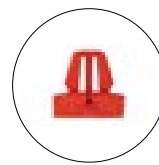
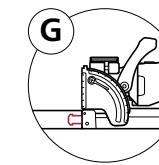
# Possible combination of CNC machines with Zeta P2

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



<b>Positioning pin CNC for Zeta P2,</b>	Art. No.
<b>2 pieces</b>	
Ø 5 mm	<b>251048</b>
Ø 8 mm	<b>251066</b>



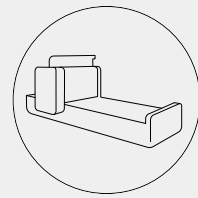
<b>Positioning clip CNC for Zeta P2</b>	Art. No.
Ø 6 mm	<b>251067</b>
for positioning in the Clamex P access hole (6 mm)	

## 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>

# Cabineo with CNC

Specific equipment options for CNC machines for Cabineo



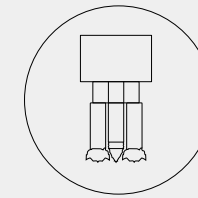
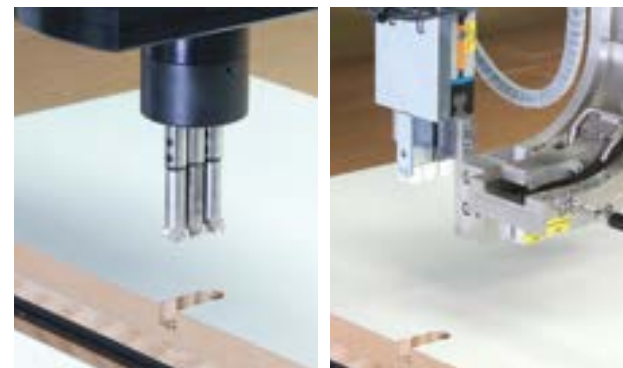
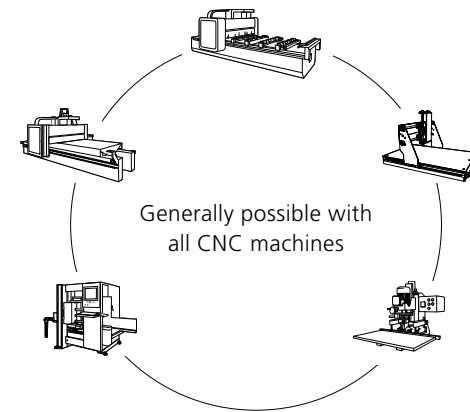
CNC machine

## Homag CENTATEQ N-600

Homag has developed the unmanned installation of the Cabineo connector on its nesting CNC machine CENTATEQ N-600. First, the multi spindle aggregate from Benz creates the drill shape, consisting of 3 drill holes, in one plunge. Once the panels are cut to size, the machine will commence with the fully automated insertion of the Cabineo into the board.

## Gannomat Basica Variabel 0194

First, the 3 spindle aggregate drills the 15 mm drill holes in one plunge. Following this, the Cabineo is held by an insertion aggregate and is pressed into the board. The 5 mm holes for the Cabineo screw are drilled either with the boss hinge aggregate or the 11 spindle shelf pin aggregate.



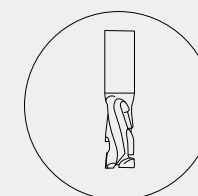
CNC tools - aggregate

## Benz MULTI V3 CABINEO

Benz has developed a 3 spindle aggregate to drill the holes for the Cabineo in one plunge. This reduces the production time to 1–2 seconds (1 drill, anti-clockwise rotation; 2 drills, clockwise rotation).

## Atemag VERTINEO Function Line

Atemag offers an aggregate for the efficient machining of the three Cabineo drill holes in one process step (2 drills, anti-clockwise rotation; 1 drill, clockwise rotation).



CNC tools

## Leuco triple drill

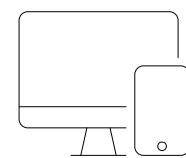
Leuco developed the three meshing drills for aggregates with triple multi-spindle head

## Leitz triple drill

Leuco triple drill set for Cabineo aggregate.



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



Experience CNC live and receive comprehensive product information!



# 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, shaft = 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



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



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



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



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



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



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

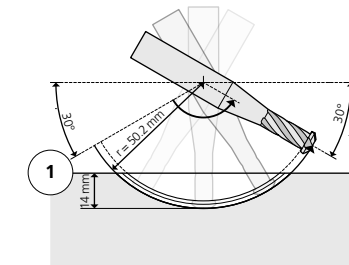
M6 x 16 mm Torx countersunk bolt, 4 pieces, **132159**  
suitable for cutter arbors

Screwdriver with cross-grip, Torx T20 x 100 mm **271919**

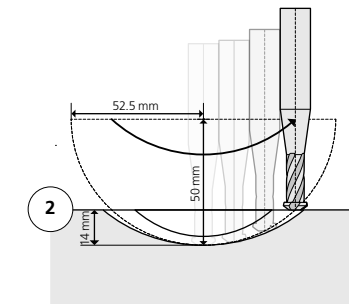


**P-System CNC shaft tool cutter** Art. No.  
HW solid (carbide), shaft Ø 12 x 40 mm, L = 80 mm **131342**

## One tool with 2 functions



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



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



# CNC tools

For Cabineo



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## Drilling System

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### Cabineo drill/cutter

---



Art. No.

Cabineo drill Ø 15 mm with short centering point **136312**

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Art. No.

Cabineo cutter Ø 10 mm **136310**

---



Art. No.

Cabineo cutter Ø 12 mm **136311**

---

### Cabineo drills for triple aggregate\*

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Art. No.

Cabineo drills for aggregate Ø 15 mm **136314**  
RH carbide tipped (right hand rotation)

---



Art. No.

Cabineo drills for aggregate Ø 15 mm **136315**  
LH carbide tipped (left hand rotation)

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\* Benz: 2x 136314 and 1x 136315 (MULTI V3 CABINEO)  
Atemag: 1x 136314 and 2x 136315 (VERTINEO Cabineo Drilling)

« *Lamello is an asset to us  
because it allows us to  
expand our possibilities.* »

Andreas Kuhlmann, Managing Director,  
Adolf Kuhlmann GmbH & Co. KG furnishing workshops,  
Schwerin, Germany



# Accessories



# Accessories / Spare Parts

P-System

## P-System



### P-System connector assortment

**professional** Art. No. **145323**

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



### P-System connector assortment

**basic** Art. No. **145321**

In Systainer3 M187, scope of delivery: 80 pairs Clamex P-14, 80 pairs Tenso P-14, incl. preload clip, 30 pairs Clamex P-14/10 Medius, 30 pairs Clamex P14/10 Flexus, 20 pieces Bisco P-14 and Tenso P-14/10 preload tool

## Clamex P



**Clamex P assembly tool** Art. No. **251993**

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



**Allen key** Art. No. **271945**

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, 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**



**Clamex P drill jig** Art. No. **125344**

Incl. drill, from 22.5° for all

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. **125345**

Drill jig for thick workpieces 100 mm,

(P-14), incl. drill



**Drill** Art. No. **131506**

Spiral drill Ø 6 mm with centering point,

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\***,

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



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

Ø 6 mm	Art. No.
	<b>251067</b>

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

## Tenso P



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

Tool to pre-load the Tenso P	Art. No.
	<b>145400</b>



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

For offset installation on dividing panels 16 mm with Tenso P-10	Art. No.
	<b>145439</b>

## Divario P



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

Marking jig incl. drill with centering point and rotating depth collar for the precise drilling of Divario drill holes by hand	Art. No.
	<b>125510</b>



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

Marking jig to mark the Divario holes with a pencil	Art. No.
	<b>125511</b>



**Divario P-18 Installation tool**

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



**Divario P-18 Starter set**

In systainer3 M137, scope of delivery: Divario P-18, 80 pairs, drill, marking jig in metal and installation tool	Art. No.
	<b>145552</b>

## Zeta P2



**Stop square for**

<b>Zeta P2, Top 21, Classic X</b>	Art. No.
For stabilising the biscuit joiner in the vertical position, ideal for obtuse mitre joints	<b>251044</b>



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

5 mm, aluminium for 18 mm panels	Art. No.
	<b>253027</b>
2 mm, plastic for 16 mm panels	<b>253023</b>
4 mm, plastic for mitres	<b>253026</b>



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

Ø 100.4 x 7 x Ø 22 mm	Art. No.
Z3, 4 NL for Zeta P2	<b>132140</b>



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

Ø 100.9 x 7 x Ø 22 mm	Art. No.
Z3, 4 NL for Zeta P2	<b>132141</b>



**Dust bag**

For Zeta P2/Top 21/Classic X	Art. No.
	<b>257532</b>

## Batteries



Battery pack 18 V, LiHD 4.0 Ah	Art. No.
	<b>313013</b>



Battery pack 18 V, LiHD 5.5 Ah	Art. No.
	<b>313015</b>



Battery charger ASC 55	Art. No.
	<b>123100</b>

# Accessories / Spare Parts

Lamello System

## Lamello System



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



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



<b>Systainer3 M187</b>	Art. No.
Systainer3 M187, empty	<b>331579</b>
Insert with two partitions for Systainer3 M 187	<b>360023</b>
Divider for insert 360023	<b>360019</b>
Insert Systainer3 M187 for Zeta P2/Top21/Classic X	<b>360020</b>



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



<b>Z6 alternating teeth, without hub, with spacer for Classic X</b>	Art. No.
	<b>132106</b>



<b>Groove cutter HW (carbide), Ø 78 × 3 × Ø 22 mm</b>	Art. No.
Z4, 4 Screw holes, with hub for original wooden biscuit H9 for Zeta P2/Top 21/Classic X	<b>132009</b>



<b>Groove cutter HW (carbide) with reversible blades, Ø 100 × 4 × Ø 22 mm</b>	Art. No.
Z2 + V2, 4 screw holes with hub for Zeta P2/Top 21/Classic X	<b>132001</b>
Set of 4 pieces	<b>132111</b>
Countersunk screws	<b>352408T</b>
Allen key, 4 mm	<b>271959L</b>



<b>Groove cutter HW (carbide) with reversible blades, Ø 100 × 4 × Ø 22 mm</b>	Art. No.
Z4 + V4, 4 screw holes without hub, with spacer for Zeta P2/Top 21/Classic X	<b>132130</b>
Set of 10 pieces main teeth	<b>132134</b>
Set of 10 pieces scoring teeth	<b>132135</b>
Replcement set, 4 scoring teeth + 4 main teeth	<b>132133</b>
Screws	<b>352130</b>
Torx key	<b>352133</b>



<b>Groove cutter HW (carbide) with reversible blades, Ø 100 × 8 × Ø 22 mm (Clamex S-18 connector)</b>	Art. No.
Z4 + V4, 4 screw holes for Top 20/Top 21/Classic X	<b>132108</b>
Set of 10 pieces scoring teeth	<b>132137</b>
Set of 10 pieces main teeth	<b>132136</b>
Replcement set, 4 scoring teeth + 4 main teeth	<b>132114</b>



<b>Dust bag</b>	Art. No.
For Zeta P2/Top 21/Classic X	<b>257532</b>

## Batteries



<b>Battery pack 18 V, LiHD 4.0 Ah</b>	Art. No.
	<b>313013</b>



<b>Battery pack 18 V, LiHD 5.5 Ah</b>	Art. No.
	<b>313015</b>



<b>Battery charger ASC 55</b>	Art. No.
	<b>123100</b>

# Accessories/ Spare Parts

Lamello System

## Lamello System



**Slide shoe for biscuit joiner** Art. No.  
To protect the wall and the machine **251057**  
for Zeta P2/Top 21/Classic X



**Carbide tipped saw blades HW (carbide)**  
**for expansion gaps, Ø 100 x 2.4 x Ø 22 mm** Art. No.  
Z20, 4 screw holes, 2 spacers **132350**  
for Zeta P2/Top 21/Classic X



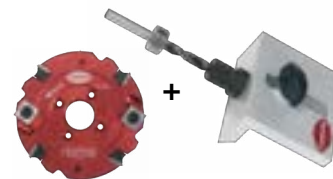
**Accessories for saw blades** Art. No.  
Spacer, Ø 40 x 1 x Ø 22 mm **322510**  
with screw holes  
for Zeta P2/Top 21/Classic X



Art. No.  
**Flange M8 to saw blades** **252502**



**Clamex S drill jig** Art. No.  
Clamex S drill jig 30°–150°, **125240**  
with 6 mm drill complete



**Clamex S-18 set** Art. No.  
Drill jig for 30°–150° incl. drill and carbide **125250**  
tipped groove cutter  
with drill jig and cutter  
includes 1 set 125240 and 1 piece 132108

## Clamping set parts



**Clamps** Art. No.  
5 m clamping strap **175005**  
8 m clamping strap **175008**  
10 m clamping strap **175010**



**Buckle for clamps** Art. No.  
1 piece, without strap **175060**



**Polyester strap for clamps** Art. No.  
1 roll of 50 m **175050**



Art. No.  
Per meter m<sup>1</sup> **335000**



**Tension hooks** Art. No.  
2 pieces **175200**



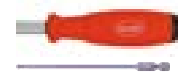
**Profile sections** Art. No.  
4 pieces, length 12 cm **175401**  
4 pieces, length 40 cm **175402**  
4 pieces, length 60 cm **175403**

# Accessories / Spare Parts

Drilling System



## Cabineo



**Cabineo installation tool** Art. No.  
With handle, incl. hex bit 1/4" **256300**



Cabineo hex bit 1/4" Art. No.  
**276312**



Cabineo hex bit 1/4" GL 80 mm Art. No.  
**276308**  
Cabineo hex bit 1/4" GL 80 mm, 100 pieces **276309**



**Cabineo drill/cutter** Art. No.  
Cabineo drill Ø 15 mm with short centering point **136312**



Cabineo cutter Ø 10 mm Art. No.  
**136310**



Cabineo cutter Ø 12 mm Art. No.  
**136311**



Cabineo drills for aggregate\* Ø 15 mm Art. No.  
**136314**  
RH carbide tipped (right hand rotation)



Cabineo drills for aggregate\* Ø 15 mm Art. No.  
**136315**  
LH carbide tipped (left hand rotation)



	Art. No.	
	100 pieces	2000 pieces
RAL 9003 signal white	<b>186350S</b>	<b>186351S</b>
RAL 9010 pure white	<b>186350W</b>	<b>186351W</b>
RAL 9018 papyrus white	<b>186350P</b>	<b>186351P</b>
RAL 1015 light ivory	<b>186350H</b>	<b>186351H</b>
RAL 1011 brown beige	<b>186350B</b>	<b>186351B</b>
RAL 8007 fawn brown	<b>186350R</b>	<b>186351R</b>
RAL 7040 window grey	<b>186350F</b>	<b>186351F</b>
RAL 7005 mouse grey	<b>186350A</b>	<b>186351A</b>
RAL 9005 jet black	<b>186350T</b>	<b>186351T</b>
Metal look, silver	<b>186350C</b>	<b>186351C</b>
Metal look, nickel	<b>186350N</b>	<b>186351N</b>
Metal look, dark steel	<b>186350D</b>	<b>186351D</b>



**Cabineo insert insertion tool** Art. No.  
For insert M6 **276310**

# Accessories / Spare Parts

Drilling System

## Invis Mx2



<b>Invis Mx2 screw bit</b>	Art. No.
1 piece	<b>6112205</b>



<b>Invis Mx2 MiniMag</b>	Art. No.
Incl. screw bit	<b>6100301</b>



<b>Invis Mx2 flexible shaft</b>	Art. No.
1 piece	<b>6100204</b>



<b>Invis Mx2 insertion jig</b>	Art. No.
For studs 14 mm	<b>6112333</b>



<b>Invis Mx2 insertion bush for Rasto</b>	Art. No.
For studs 14 mm	<b>6112330</b>

## Rasto



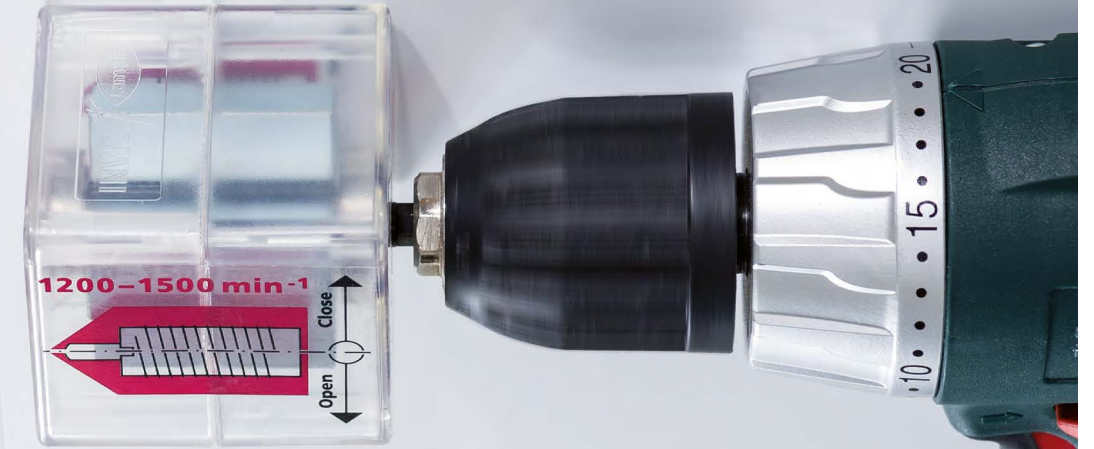
<b>Rasto wood drill bit with centering tip</b>	Art. No.
Ø 5 mm	<b>6100160</b>
Ø 6 mm	<b>6106161</b>
Ø 8 mm	<b>6108060</b>
Ø 10 mm	<b>6110162</b>
Ø 12 mm	<b>6112060</b>



<b>Rasto depth adjuster</b>	Art. No.
Ø 5 mm	<b>6100059</b>
Ø 6 mm	<b>6100063</b>
Ø 8 mm	<b>6100060</b>
Ø 10 mm	<b>6100064</b>
Ø 12 mm	<b>6100061</b>



<b>Invis Mx2 spacer</b>	Art. No.
For Rasto	<b>6112331</b>



<b>Rasto perforated plate</b>	Art. No.
1 piece	<b>6160000</b>



<b>Rasto drill bush</b>	Art. No.
Ø 5 mm	<b>6100065</b>
Ø 6 mm	<b>6100056</b>
Ø 8 mm	<b>6100057</b>
Ø 10 mm	<b>6100067</b>
Ø 12 mm	<b>6100058</b>



<b>Rasto fixing screw</b>	Art. No.
4.5 x 35 mm, TX 25	<b>6560450</b>



<b>Rasto positioning bolts</b>	Art. No.
Ø 5 x 40 mm	<b>6160001</b>



<b>Rasto connection rod 500 mm</b>	Art. No.
Two-part	<b>6160601</b>



# Overview of connectors

P-System

Clamex P Detachable		Clamex P-14	Pairs	Art. No.	Dimensions		Installation	
			80	145334	$\geq 12$ mm	$\geq 18$ mm	$\geq 29$ mm	
			300	145346	$\geq 15$ mm	$\geq 18$ mm	$\geq 12$ mm	
			1000	145356	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			80	145370	$\geq 12$ mm	$\geq 18$ mm	$\geq 16$ mm	
			300	145371	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			1000	145357	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			80	145372	$\geq 12$ mm	$\geq 15$ mm	$\geq 19$ mm	
			300	145373	$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
			1000	145374	$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
			80	145315	$\geq 12$ mm	$\geq 18$ mm	$\geq 16$ mm	
			300	145316	$\geq 12$ mm	$\geq 18$ mm	$\geq 16$ mm	
			1000	145317	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			80	145301	$\geq 12$ mm	$\geq 18$ mm	$\geq 29$ mm	
			300	145302	$\geq 15$ mm	$\geq 18$ mm	$\geq 12$ mm	
			1000	145303	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			80	145304	$\geq 12$ mm	$\geq 15$ mm	$\geq 20$ mm	
			300	145305	$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
					$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
			80	145415	$\geq 16$ mm	$\geq 18$ mm	$\geq 19$ mm	
			300	145425	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			1000	145435	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	
			Pieces	Art. No.				
			300	145426				
			1000	145436				
			Pairs	Art. No.				
			80	145418	$\geq 12$ mm	$\geq 15$ mm	$\geq 16$ mm	
			300	145428	$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
			1000	145438	$\geq 12$ mm	$\geq 15$ mm	$\geq 12$ mm	
			80	145550	$\geq 12$ mm	$\geq 18$ mm	$\geq 18$ mm	
			300	145560	$\geq 12$ mm	$\geq 18$ mm	$\geq 8$ mm	
			1000	145570	$\geq 12$ mm	$\geq 18$ mm	$\geq 12$ mm	

# Overview of connectors

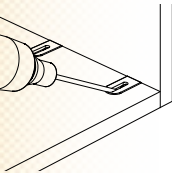

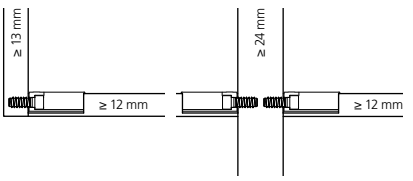
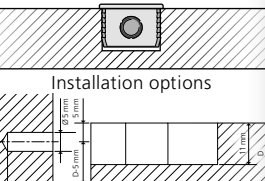

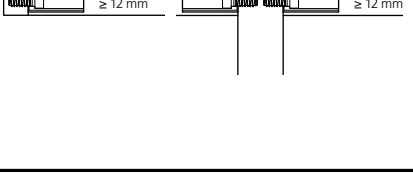
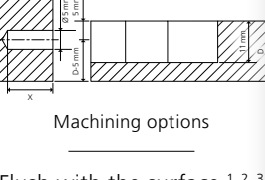

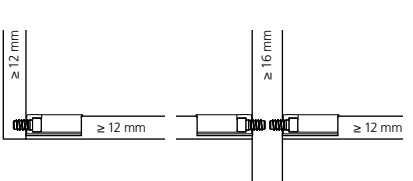
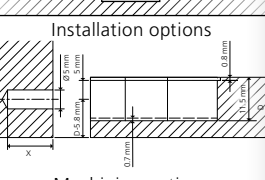

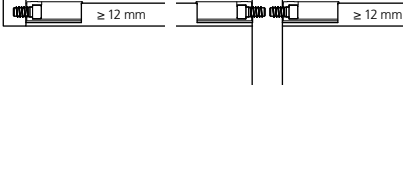
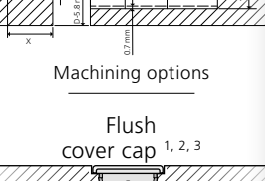

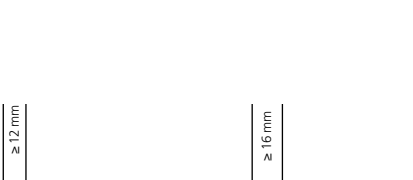
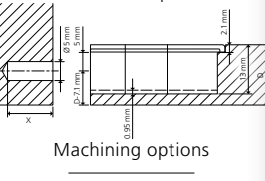


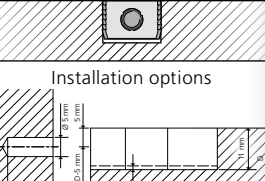

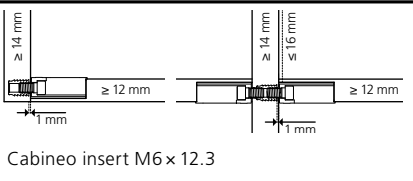
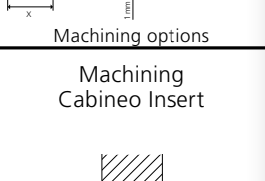

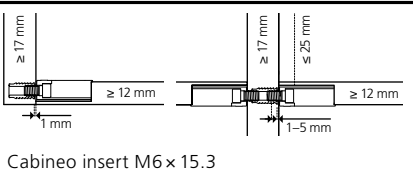
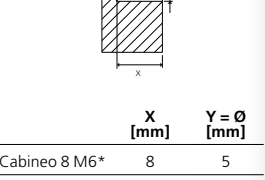
Lamello System

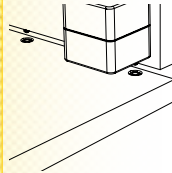

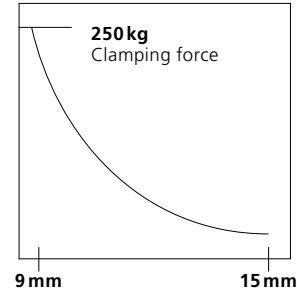


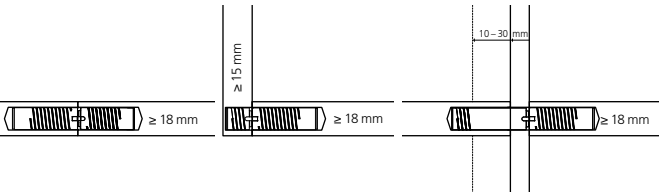

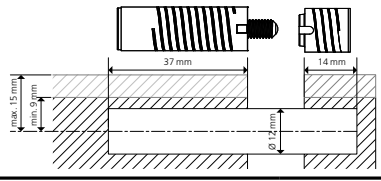

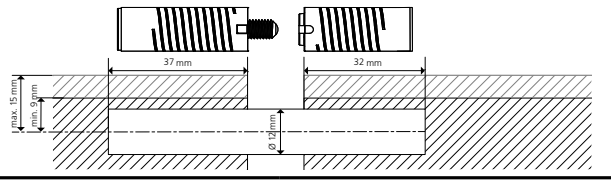

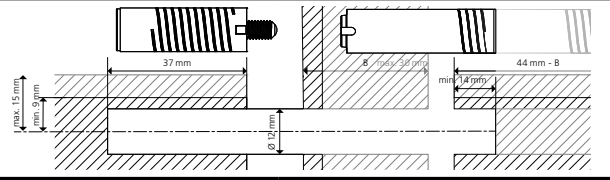
Glueing		Original wooden biscuit 20	Pieces	Art. No.	Dimensions		Installation	
Glueing			1000	144020	$\geq 13$ mm	$\geq 12$ mm	$\geq 12$ mm	
					$\geq 11$ mm	$\geq 10$ mm	$\geq 10$ mm	
					$\geq 9$ mm	$\geq 9$ mm	$\geq 9$ mm	
					$\geq 8$ mm	$\geq 8$ mm	$\geq 8$ mm	
Glueing			250	145010	$\geq 14$ mm	$\geq 13$ mm	$\geq 13$ mm	
					$\geq 11$ mm			
Detachable			Pairs	Art. No.				
			18	145231	$\geq 12$ mm	$\geq 18$ mm	$\geq 18$ mm	
			80	145236	$\geq 16$ mm	$\geq 18$ mm	$\geq 18$ mm	
Detachable			300	145241	$\geq 14$ mm	$\geq 12$ mm	$\geq 12$ mm	
			1000	145251	$\geq 14$ mm	$\geq 12$ mm	$\geq 12$ mm	
Inserted			Pieces	Art. No.				
			80	145021	$\geq 8$ mm			
			400	145026	$\geq 29$ mm			
Inserted			80	145022	$\geq 8$ mm			
			400	145025	$\geq 13$ mm			
			1200	145027	$\geq 13$ mm			
Inserted			80	145001	$\geq 14$ mm	$\geq 14$ mm	$\geq 14$ mm	
			250	145000	$\geq 14$ mm	$\geq 14$ mm	$\geq 14$ mm	

# Overview of connectors

Drilling System

- 1 Cabineo 8: X = 8 mm, black screw
  - 2 Cabineo 12: X = 12 mm, nickel-plated screw
  - 3 Cabineo 8 M6\*: X = 8 mm, yellow galvanised screw
- \* Metric ISO thread DIN 13-1

Cabineo	Cabineo 12	Pieces	Art. No.	Installation options	Machining options
<b>Detachable</b> 		500	<b>186320</b>		
		2000	<b>186321</b>		
	<b>Cabineo 12 black</b> 	500	<b>186330</b>		
		2000	<b>186331</b>		
	<b>Cabineo 8</b> 	500	<b>186310</b>		
		2000	<b>186311</b>		
	<b>Cabineo 8 black</b> 	500	<b>186340</b>		
		2000	<b>186341</b>		
	<b>Cabineo 8 M6 metric thread M6</b> 	500	<b>186315</b>		
		2000	<b>186316</b>		
	<b>Cabineo 8 M6 black metric thread M6</b> 	500	<b>186345</b>		
		2000	<b>186346</b>		
<b>Cabineo insert M6 x 12.3</b> 	100	<b>186370</b>			
	500	<b>186371</b>			
<b>Cabineo insert M6 x 15.3 for centre panels</b> 	100	<b>186375</b>			
	500	<b>186376</b>			

Invis Mx2	Invis Mx2 connector set with 14 mm Invis Mx2 stud	Pairs	Art. No.	Installation options
<b>Detachable</b> 		20	<b>6012300</b>	 <p>Small distance from the edge for high clamping force</p> <p>250 kg Clamping force</p> <p>9 mm 15 mm</p>
	<b>Invis Mx2 connector set with 30 mm Invis Mx2 stud</b> 	20	<b>6012301</b>	
	<b>Invis Mx2 connector 35 mm</b> 	Pieces	<b>Art. No.</b>	
		20	<b>6012317</b>	
	<b>Invis Mx2 stud 14 mm</b> 	20	<b>6012312</b>	
	<b>Invis Mx2 stud 30 mm</b> 	20	<b>6012309</b>	
<b>Invis Mx2 centre wall stud 10-30 mm</b> 	10	<b>6012208</b>		

## 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 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.**



Manufacturer:  
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**Joining technology**  
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