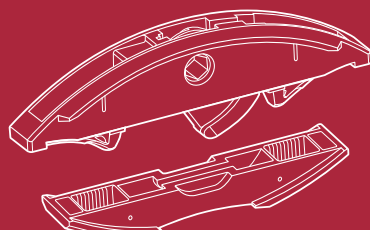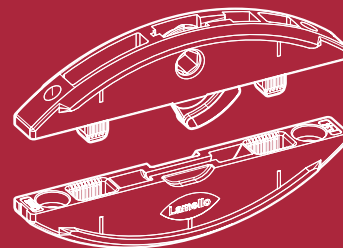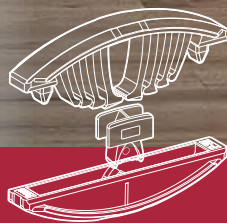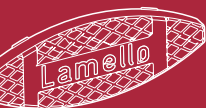# Lamello

Catalogue 25/26
Every connection counts

Lamello connects

In the world of joining technology, every joint is more than just a technical solution –
it is an expression of precision, reliability and progress.

For more than half a century, we have been passionate about developing tools and
systems that complete your unique projects and support processes efficiently and sustainably.
We want to give you the freedom to realise your ideas – without compromise.

Discover the latest innovations in our catalogue and be inspired by the possibilities of
our products.

Together, we create joints that last for generations.

Marco Schweizer   Susanne Affolter-Steiner
Group CEO   Owner and Chairperson of the Board of Directors

Content

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

People at the heart

These values connect us:

Customer-focused

We create the best possible customer experiences, spend a lot of time with users, act quickly and effectively on customer feedback, share our experiences with the community, behave loyally and anticipate future needs.

Together

We support each other, communicate respectfully on an equal footing, give each other undivided attention and use the diversity of our shared creativity – we are one team.

Responsible

We take full responsibility for our actions and are committed to sustainability towards the environment, people and business. Ethical behaviour is the norm and we are committed to the common good, stand by our decisions and are willing to learn from them.

Reliable

We are committed to consistent quality; we respect our partners' time with consistent punctuality, keep our promises, actively inform and create trust across borders.

Transparent

We act according to clear guidelines and expectations, have comprehensible decision-making processes, communicate openly and honestly and view feedback as a valuable asset.

Inspiring

We live creativity and innovation, motivate each other, promote personal training and individual development, create global standards and give meaning to our stories.

Our promise

Your unique piece of furniture – perfectly connected

Furniture in series – without compromise

- Endless design possibilities for timeless aesthetics
- Time-saving and reliable
- From experts to experts
- Our passion for your craft
- With us, your furniture connects generations

- Unlimited design freedom for your angles and mitres
- Differentiate your collections with unique designs
- Reliably pre-assembled, optimally disassembled and compactly stacked
  – simply ingenious
- Combine serial manufacturing and innovation with us

| Interior fitting | Shelf construction | Furniture manufacturing | Kitchen manufacturing | Bathroom furniture | Shop fitting | Office furniture |

Added value

This is what you can expect from us.

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.

Our roots:
Looking back. Thinking ahead.

1944
Joinery founded
by Hermann Steiner
in Liestal

1955
Lamello System
invented by Hermann
Steiner

1958
First stationary Lamello
biscuit joiner LO1

1968
First hand-operated
Lamello biscuit joiner

1969
Founding of
Lamello AG

1970
System Wood
repair system

1981
Tanga 150,
window cutter

2001
Invis
Interzum award

2009
Clamex P
Interzum award

2010
Zeta, power tool
for the P-System

2013
Tenso P-14
Interzum award

2015
Divario P-18
Interzum award

2017
Cabineo
CNC connector

2019
Tenso P-10
Interzum award

2020
Clamex P-14/10 Flexus
Interzum award

2022
Zeta P2 cordless and
Classic X cordless

2023
Clamex S-20

2024
Cabineo X

2025
LC P-16

We are proud of our more than 50-year history. At the same time, we are looking ahead and continuously developing. Since the beginning of Lamello's history, the pursuit of new insights, continuous improvements and system solutions have been at the heart of Lamello.

Hermann Steiner is the founder of Lamello, who launched his revolutionary idea, the wooden biscuit, in 1955. Every milestone starts with an idea. However, influential or even revolutionary ideas don't just happen.

Innovation

Flexibility. Productivity. Creativity.
Every connection counts

Combination of many years of expertise and intensive development work

Since the beginning of Lamello's history, the pursuit of new insights, continuous improvements and system solutions has been at the heart of Lamello.

It is only through many years of practical knowledge and intensive development work 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 to this day. We have built up our expertise over the course of more than 60 years. This knowledge is complemented by a large dose of curiosity and a close relationship with our customers.

A pioneer of innovation

Our products are the result of continuous innovation and enable our customers to work more creatively, flexibly, productively and efficiently. As pioneers, we strive to overcome technological limits – over 300 patents and industrial property rights are the result of this.

Multiple awards

The Interzum Awards and national innovation awards are a valuable recognition and an incentive to continue moving forward. Our wooden biscuit even made it to the renowned Museum of Modern Art in New York for the exhibition "The Most Humble Innovations of the 20th Century".

Revolutionary ideas, pioneering innovations

In 1955, Hermann Steiner invented the original wooden biscuit – a revolutionary idea. It all started with wood, but new materials are shaping the future. Lamello is opening a new era with the P-System connectors. The P-System groove enables quick assembly without the use of glue or screws.

Sustainability

Beech wood from sustainable, locally managed forests is just the beginning

At Lamello, we are committed to promoting a sustainable future

We source and use the raw material wood responsibly as a renewable resource. We also take a conscious approach to the use of other materials, as our goal is to continuously reduce the environmental impact of our products and production methods through innovative technologies and efficient processes.

We actively engage in our communities and support educational initiatives that raise awareness of sustainable practices. Through transparency in our communication and partnerships, we strive to help shape the standards in our industry. Together, we work to find the balance between economic success and environmental responsibility to preserve our planet for future generations.

At Lamello, we actively support specialist knowledge relating to Lamello products in the training and development of cabinetmakers. With our commitment, we want to take responsibility and make a valuable contribution to high-quality vocational training in the carpentry industry, because we are convinced that well-trained specialists are the foundation of our successful industry.

Social responsibility and training at Lamello

Our employees are the key to our success, which is why we attach great importance to training and professional development. We work with workshops for people with disabilities to produce popular customer samples. We also promote cabinetmaking talent and support training through active participation and sponsorship.

Sustainability and regionality: Production at our site in Bubendorf

We rely on beech wood (FSC) from the region and manufacture our products in Bubendorf. Our own wood chip heating system covers our heat requirements, saving over 300 tonnes of crude oil annually. Our long-lasting products conserve resources and avoid waste.

Efficient production and sustainable future at Lamello

Our state-of-the-art manufacturing facilities optimise energy consumption and contribute to sustainability. Spare parts are available for up to 15 years to ensure the durability of our machines. Old machines are recycled in an environmentally friendly way and surplus energy is used to supply households with community heating.

Locations

Far-reaching. Close to home.
We are there for you worldwide

Global presence

Lamello has an international sales network consisting of four sales offices,

representatives in over 65 countries and over 400 authorised sales partners.

Our head office in Bubendorf, Switzerland

Around 110 employees work at the head office in Bubendorf. Every day,
we ensure that our customers receive first-class advice, processes run smoothly
and new innovations are created.

Our plastic injection factory in Bubendorf, Switzerland

Lamello's plastic injection factory is located near our head office. Our plastic
connectors are manufactured in-house with high precision and years of experi-
ence. Lamello's quality promise is perfectly fulfilled by the safety standards.

Our logistics centre in the tri-border region, Germany

Our modern and sustainable logistics centre is located in Grenzach-Wyhlen,
Germany. This tactically chosen location offers a great amount of space and
enables smooth international shipping to Germany, Austria, Belgium, France,
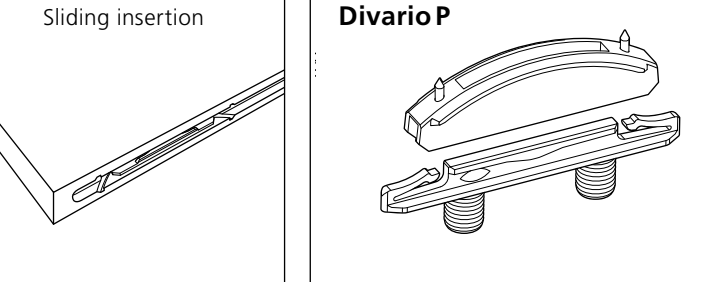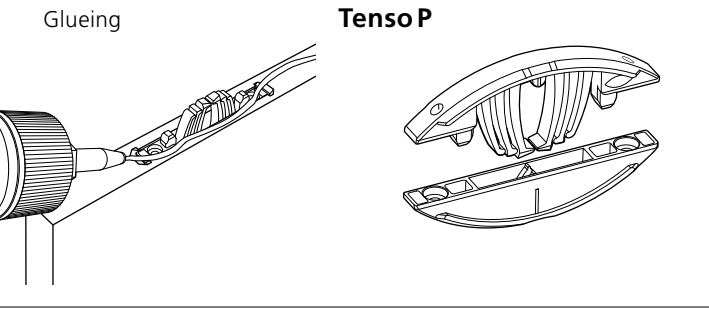Luxembourg and Italy.

Our subsidaries

From here, we support our local customers.

Grenzach-Wyhlen, Germany

Kruishoutem, Belgium I France I Netherlands

Angera, Italy

Feldkirch, Austria

Systems

– **P-System**
– **Lamello System**
– **Drilling System**

Overview

P-System	
Features	Connector

Lamello System	
Features	Connector

Drilling System	
Features	Connector

With P-System groove cutter

With 4 mm Lamello System groove cutter

Detachable	**Clamex P**

Glueing	**Original wood biscuit**

	C20

Detachable	**Cabineo**

Glueing	**Tenso P**

Detachable	**Clamex S**

Detachable	**Invis Mx2**

Sliding insertion	**Divario P**

Inserted	**E20**

	K20

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

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

Detachable

Clamex P

Glueing

Tenso P

Sliding insertion

Divario P

Zeta P2

CNC processing centres with **consoles**

CNC processing centres with **nesting technology**

Zeta P2 cordless

CNC processing centres **vertical**

Connectors

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 (Ø = 6 mm) serves to close and open the connector

High clamping force

Clamp and glue workpieces at any angle

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

Tenso P-14

Divario P-18

Tenso P-10

Interior fitting

Clamex P-14 CNC

Clamex P-14

Clamex P-14/10 Flexus

Tenso P-10

Kitchen manufacturing

LC P-16

+

Clamex P-14

Clamex P-10

Clamex P-14

Commercial joinery

Tenso P-14

Clamex P-14 CNC

Shop fitting

Clamex P-14

Detachable furniture connector

Features

| Detachable | Aesthetic | Fast installation |

– Detachable furniture connector,
  installed in seconds
– Aesthetic look with the hardly visible 6 mm
  access hole
– All-rounder for all angle and miter joints
  from 22.5° to 180°
– High clamping force for perfectly closed
  joints
– Ideal for open shelves, cupboards or
  wardrobes under sloping roofs

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

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

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Technical data

Joining methods

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

See **PAGE 74** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 172–173**

[1] See comment on load limits on **PAGE 185**

Clamex P-14/10 Medius

Detachable connector for centre panels
for materials from 16 mm thickness

Features

Detachable **Aesthetic** **Overlapping insertion**

– Detachable furniture connector,
  installed in seconds
– Supplement to Clamex P-14 for dividing
  panel connections from 16 mm
– Aesthetic look with the hardly visible 6 mm
  access hole
– High clamping force for perfectly closed
  joints
– Ideal for dividing panel connections in
  sideboards, shelves or cupboards

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

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

Matching accessories starting on PAGE 170

Installation

Depth adjustment

Technical data

Joining methods

Size	$64 \times 13.5 \times 9.7$ mm $52 \times 7.5 \times 9.7$ mm		
Cutter	Ø $100.4 \times 7 \times$ 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 760[1]	Particle board 680[1]	Beech 1070[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

See **PAGE 74** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 172–173**

[1] See comment on load limits on **PAGE 185**

Clamex P-10

Detachable connector for materials from 12 mm thickness

Features

| Detachable | Aesthetic | Low cutting depth |

– Detachable furniture connector, installed in seconds
– For miters from 15 mm and butt joints from 12 mm material thickness
– Aesthetic look with the hardly visible 6 mm access hole
– All-rounder for all angle and miter joints from 22.5° to 180°
– Ideal for thin materials, miters, wooden drawers, open shelves

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.
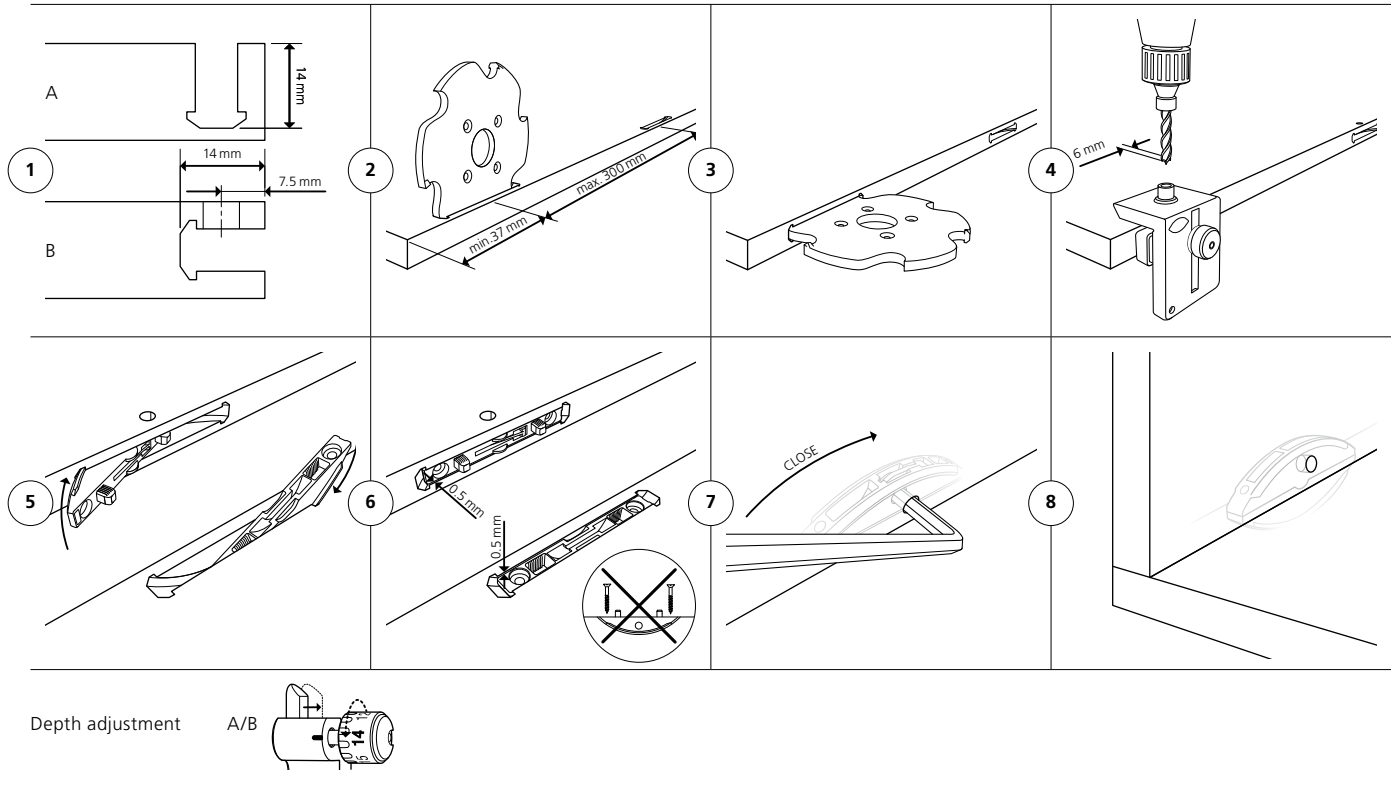
Articles

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

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

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 700[1]	Particle board 540[1]	Beech 900[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

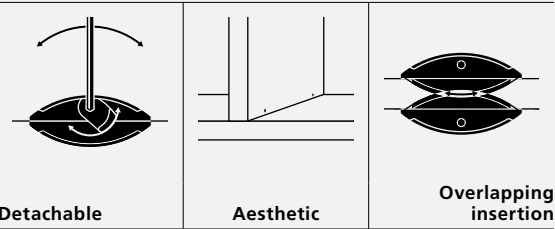See **PAGE 74** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 172–173**
[1] See comment on load limits on **PAGE 185**

Clamex P-14/10 Flexus

Detachable furniture connector
with flexible positioning pins

Features

Detachable   Versatile   Aesthetic
assembly

- Detachable furniture connector, installed in seconds
- Flexible positioning pins for retrofitting shelves
- Aesthetic look with the hardly visible 6 mm access hole
- All-rounder for all angle and miter joints from 22.5° to 180°
- Ideal for furniture construction, sideboards, wine racks, inspection flaps

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

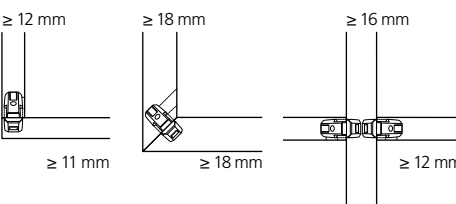|	Art. No.
Clamex P-14/10 Flexus, 80 pairs	**145315**
Clamex P-14/10 Flexus, 300 pairs	**145316**
Clamex P-14/10 Flexus, 1000 pairs	**145317**
Clamex P-14 Flexus element with lever, 2000 pieces	**145318**
Clamex P-10 Medius element without lever, 2000 pieces	**145369**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A   B

Shelf disassembly

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 790[1]	Particle board 710[1]	Beech 1190[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

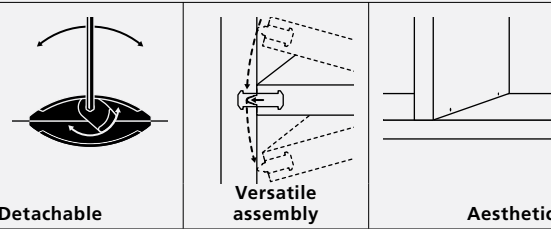See **PAGE 75** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 172–173**
[1] See comment on load limits on **PAGE 185**

Clamex P-14 CNC

Detachable furniture connector
with precise alignment

Features

| Detachable | Aesthetic | Precise alignment |

– Detachable furniture connector, installed
  in seconds
– CNC connector with automatic alignment
  for efficient assembly
– Aesthetic look with the hardly visible 6 mm
  access hole
– All-rounder for all angle and miter joints
  from 22.5° to 180°
– Ideal for furniture construction, especially
  for flat-pack furniture

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

Art. No.

| Clamex P-14 CNC element with lever, 2000 pieces | **145388** |

| Clamex P-14 element without lever, 2000 pieces | **145339** |

| Clamex P-10 element without lever, 2000 pieces | **145358** |

| Clamex P-10 Medius element without lever, 2000 pieces | **145369** |

Matching accessories starting on PAGE 170

Installation

Version with CNC

Technical data

Joining methods

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

See **PAGE 75** for technical specifications | 90° and 45° cover caps are available in a variety of colours **PAGE 172–173**
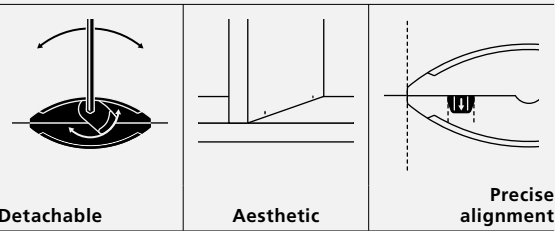
[1] See comment on load limits on **PAGE 185**

Advantages of the Clamex P

Detachable furniture connector

1.
Advantages in production

2.
Advantages in transportation

3.
Advantages in assembly

– 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

1.
Machining with a Zeta P2 or CNC machine

2.
Only one tool change

3.
Tool-free connector installation

4.
Flat pack delivery

5.
Versatile for all angles and joining situations

6.
Strong and detachable connection

« *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

Flush alignment   **Alternating application**   **Versatile**

– Plastic element for Clamex P and Tenso P
– Align furniture parts flush together with
  Clamex P
– Before gluing with Tenso P, check furniture
  for quality control with Bisco P
– All angle and miter joints from 22.5° to 180°
– Bisco P-10 from material thickness 12 mm,
  Bisco P-14 from 16 mm

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

	Art. No.
Bisco P-14, 80 pieces	**145301**
Bisco P-14, 300 pieces	**145302**
Bisco P-14, 1000 pieces	**145303**

Bisco P-10, 80 pieces	**145304**
Bisco P-10, 300 pieces	**145305**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B   C/D

Technical data

Joining methods

Bisco P-14	
Size	65 × 27 × 7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 2 mm
Tensile strength (N)	Depending on the connector combination

Bisco P-10	
Size	52 × 19 × 7 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 2 mm
Tensile strength (N)	Depending on the connector combination
Material range	Particle board, MDF, plywood, softwood, hardwood etc.

Tenso P-14

Self-clamping connector for glueing
materials from 16 mm thickness

Features

Glueing   Invisible   Versatile

– Self-clamping connector for gluing, installed
  in seconds
– Invisible connection for maximum aesthetics
– Pretensioning function, ideal for miters and
  connection situations from 22.5° to 180°
– High clamping force for perfectly clamped
  joints without screw clamps and shims
– Gluing aid for a wide range of applications
  in furniture or interior design

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

interzum
Award
Best of the best

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

	Art. No.
Tenso P-14 preload clip, 300 pieces	**145426**
Tenso P-14 preload clip, 1000 pieces	**145436**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Displacer installation

Depth adjustment   C   D

Technical data

Joining methods

≥ 12 mm   ≥ 18 mm   ≥ 19 mm
≥ 15 mm   ≥ 18 mm   ≥ 12 mm

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 77** for technical specifications | [1] Note: The aligning element Bisco P-14 is ideal to dry-assemble the joints before glueing.

Tenso P-10

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

Features

Glueing	Invisible	Low cutting depth

– Self-clamping connector for gluing, installed
  in seconds
– For miters from 15 mm and butt joints from
  12 mm material thickness
– Invisible connection for maximum aesthetics
– Pretensioning function, ideal for miters and
  connection situations from 22.5° to 180°
– Gluing aid for a wide range of applications
  in furniture or interior design

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

interzum
Award
High product quality

	Art. No.
Tenso P-10, with preload clip, 80 pairs	**145418**
Tenso P-10, with preload clip, 300 pairs	**145428**
Tenso P-10, with preload clip, 1000 pairs	**145438**
Tenso P-10 element with spring, 2000 pieces	**145442**
Tenso P-10 element without spring, 2000 pieces	**145443**
Tenso P-10 preload clip, 2000 pieces	**145445**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Displacer installation

Depth adjustment   C   D

Technical data

Joining methods

≥ 12 mm   ≥ 15 mm   ≥ 16 mm

≥ 11mm   ≥ 15 mm   ≥ 12 mm

Size	52 × 19 × 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.

Divario P-18

Self-clamping, invisible connector
for slide insertion

Features

Sliding insertion **Invisible** **Clamped joint**

– Furniture connectors for subsequent insertion
  of shelves or partitions
– Quick assembly on site – insert. Done.
– Divario P-18 tensions the joint perfectly
  during insertion
– Invisible connection for maximum aesthetics
– Ideal for wall units, wine racks, large pieces
  of furniture, flat-pack furniture

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 assembed cabinet.
In the process, the Divario P-18 clamps the
workpieces together firmly and ensures
perfectly closed joints without visible connec-
tors. Divario P-18 is used for joining shelves
to divisions from 18 mm panel thickness or in
butt joints from 12 mm.

Articles

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

Divario P-18 installation tool	**125500**

Divario P-18 Starterset **145550S**
Scope of delivery: 80 pair Divario P-18,
Divario installation tool, marking jig plastic

Divario P-18 Starter kit, in Systainer[3] M 137 **145552**
Kit contains: 80 pairs Divario P-18, Divario installation tool,
marking jig metal

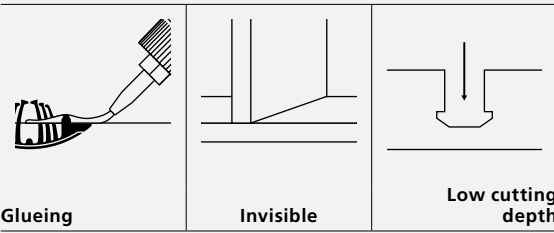**Matching accessories starting on PAGE 170**

Installation

Depth adjustment

Technical data

Joining methods

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

LC P-16 connector for lightweight construction

New possibilities in lightweight construction with the P-System

LC P-16 is a connector that combines the advantages of lightweight construction with the efficient and aesthetic Clamex connection. Due to its width, the LC P-16 is anchored in the surface layers and acts as an adapter into which a Clamex P-14 connector is slid in.

Surface layer   Interlayer

Lightweight construction stands for innovative designs that offer maximum stability and functionality with minimal use of materials. At a time when sustainability and resource conservation are becoming increasingly important, lightweight construction plays a central role. The use of intelligent materials and innovative technologies not only reduces weight and costs, but also protects the environment. Whether in the furniture industry, interior fittings or vehicle construction – lightweight construction enables flexible, resilient and sustainable solutions. It opens up new design possibilities and promotes efficient, future-oriented construction.

Advantages in the manufacturing process

The LC P-16 lightweight connector significantly improves the machining and assembly process. The time-consuming use of a concealed timber edge is eliminated, which speeds up the production process and also saves material. The simple assembly – the connector is simply slid in – completely eliminates waiting times due to glueing. The result is a fast, smooth process that reduces time and costs in both manufacturing and assembly without compromising on aesthetics, stability and quality.

Cabinet with concealed timber edge

Processing time per cabinet

Cut concealed timber edges to size
Rebate workpieces
Glue concealed timber edges
Join the workpieces
Insert Clamex P connectors
Drill the opening
Cut P-System grooves
Drying time

48'

Cabinet with LC P-16

Processing time per cabinet

Join the workpieces
Insert Clamex P connectors
Insert LC P-16
Drill the opening
Cut P-System grooves

11'

LC P-16

Joining system for lightweight panels without the need for concealed timber edges

Features

No concealed timber edging required | **Fast installation** | **Combine**

– P-System joint for lightweight materials and speedy installation
– Strong anchorage in the surface layers without concealed timber edges
– Three product sizes for use with all common material thicknesses
– Enables the use of the detachable Clamex P family
– Ideal for furniture and assemblies in lightweight construction, caravans and shipbuilding

The LC P-16 is a P-System joint for lightweight panels. It is securely anchored in the surface layer by its profile. The integrated P-System groove makes it possible to slide in Clamex P connectors without the time-consuming use of concealed timber edges or glues. Machining with two to three machining steps is carried out either with the Zeta P2 or, even more efficiently, with the CNC machining centre. Thanks to the three sizes of the LC P-16, detachable connections in various lightweight panels are possible.

Articles

	Art. No.
LC P-16 × 11, 80 pieces	**145710**
LC P-16 × 11, 1000 pieces	**145711**
LC P-16 × 11 Set, 80 pieces, incl. Clamex P-14/10	**145712**

LC P-16 × 17, 80 pieces	**145720**
LC P-16 × 17, 1000 pieces	**145721**
LC P-16 × 17 Set, 80 pieces, incl. Clamex P-14/10	**145722**

LC P-16 × 22, 80 pieces	**145730**
LC P-16 × 22, 1000 pieces	**145731**
LC P-16 × 22 Set, 80 pieces, incl. Clamex P-14/10	**145732**

LC P-16 Starter Set	**145700**

Scope of delivery: 20 × LC P-16 × 11, 20 × LC P-16 × 17, 20 × LC P-16 × 22, 20 pairs Clamex P-14/10, 1 piece positioning clip, 1 piece element insert Clamex P-16, 1 piece depth adjuster cap 2 mm, 1 piece allen key, SW 4 mm, 75 × 55 mm

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A   B

Technical data

Joining methods

Size 16 × 11	71.4 × 15.3 × 13.6 mm
Size 16 × 17	71.4 × 15.3 × 19.6 mm
Size 16 × 22	71.4 × 15.3 × 24.6 mm
Cutter	Ø 100.4 × 7 × Ø 22 mm
Material connector	Fiberglass reinforced plastic
Installation tolerance	Long. ± 1.0 mm/radial ± 1.0 mm

Tensile strength 90° (N) Up to	Surface layer / Interlayer:	
	MDF / Corrugated wood fibre	Particle board / Cardboard honeycomb
LC size / Surface layer thickness:		
LC P-16 × 11 / 4 mm	680[1]	460[1]
LC P-16 × 17 / 4 mm	670[1]	410[1]
LC P-16 × 22 / 8 mm	1100[1]	870[1]
Material range	Lightweight materials, particle board, MDF, softwood etc.	

LC P-16 installation information

Machining with Zeta P2

The LC P-16 is fixed in the surface layers of the lightweight panel using the P-System anchoring. Machining can be carried out with a CNC machining centre or with the Zeta P2. Depending on the size of the surface layer, two to three milling operations are required to achieve the required groove width, as the LC P-16 is wider than a P-System connector. The machining process for an LC P-16 × 11 with the Zeta P2 is as follows:

Position the angle stop and cut the first groove

Drill 6 mm access hole

Align the Zeta P2 in the hole using the positioning clip and cut the next groove*

Inserting the LC P-16

Slide Clamex P-14 into LC P-16 and Clamex P-10 connector half into the surface.

Connect the workpieces – finished!

Choosing the right connector size

The LC P-16 lightweight connector is available in three sizes. This enables joints in the most common lightweight panels

LC P-16 × 11

Panel thickness / surface layer
19 mm / 4 mm

LC P-16 × 17

Panel thickness / surface layer
25 mm / 4 mm

LC P-16 × 22

Panel thickness / surface layer
30 mm / 4 mm
38 mm / 8 mm

 The LC P-16 configurator is available for selecting the correct connector for other material or surface layer thicknesses. Based on the panel thickness and thickness of the interlayer or surface layer, the configurator determines whether the installation of the LC P-16 is possible, which sizes can be used and which cutting position is ideal.

* If the machining is carried out with the Zeta P2, creating spacers is recommended for performing the two to three machining operations for the LC P-16. The correct dimension ican be found with the LC P-16 configurator.

Versatile applications with LC P-16

Furniture-making

© Egger Holzwerkstoffe GmbH & Co. KG

Robust, aesthetic joints between lightweight panels that combine design and functionality. Perfect for large wall units, cupboards, suspended sideboards or dining tables.

Interior fitting

Strong joints of lightweight panels for modern interior solutions. Ideal for butt joints of wall panels, ceiling elements, reception counters, floating shelves or separation walls.

Kitchen manufacturing

© Egger Holzwerkstoffe GmbH & Co. KG

Weight reduction for carcasses, wall-mounted cabinets or high cabinets. Ideal for private kitchen installations.

Shopfitting and trade fair construction

Strong, detachable joint of lightweight panels for fixed or temporary structures. The solution for wall panels, free-standing furniture or exhibition furniture.

Caravan and vehicle interior fittings

Strong, aesthetic joints for lightweight materials when low weight is critical. Ideal for interior fitting and furniture construction.

Boat interiors

Removable joints with lightweight panels in small rooms. Transport the disassembled furniture parts through the narrow entrance and assemble it efficiently and stably inside the boat.

High performance without cable

Lamello – partner in the Cordless Alliance System.

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.»

CAS. The multi-brand battery system.

More than 40 powerful manufacturers have joined forces so that tools, battery packs, and chargers are 100% compatible with each other. CAS battery packs are developed in Germany and perform well even in the most demanding applications thanks to leading battery pack technology.

One battery pack, many advantages.

– Clear cost advantages

– High investment security

– 40 years of battery pack experience

– Compatible with 18 Volt since 2009 & in the future

– 15 million battery packs on the market

Cross-Manufacturer

18 V compatible

Fits in over 400 tools

Find out more at:
www.cordless-alliance-system.com

LiHD 4.0 Ah battery pack

The unique 4.0 Ah battery pack with a single cell row and thus

– considerably flatter than a standard Li-Ion 4.0 Ah battery pack

– significantly lighter

– better handling thanks to less weight and size

– the perfect battery for Lamello cordless biscuit joner machines and all cordless drill drivers, cordless impact drivers and impact wrenches.

Li-Ion 4.0 Ah   LiHD 4.0 Ah

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

Large workpieces

– 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

Exclusive individual pieces

– 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

Adapting furniture

Mobile working on the construction site

The cordless biscuit joiner makes work on the construction site much easier – there is no need to search for sockets and roll out the cable reel.

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

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

Terrace floors

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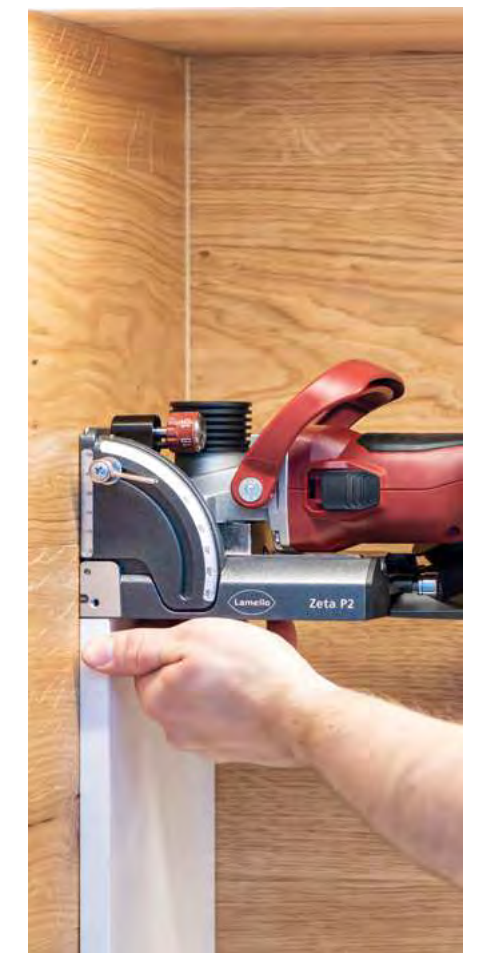
– No walkways between the processing site and the installation site, and no additional handling of the cable reel

Zeta P2 cordless

The powerful P-System biscuit joiner for cordless freedom

Features

Fast connection	Automatic vertical movement	Cordless freedom

– Cordless biscuit joiner for the production of the form-locking P-System groove
– Extremely fast, time-saving joining method – Cut. Connect. Done.
– Maximum freedom of movement in the workshop or on the construction site
– Large range of connectors for different applications
– Same application advantages as the well-known Lamello system with wooden biscuits

The cordless Zeta P2 is the profile biscuit joiner for even faster joints, 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 thanks to its battery drive. 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

CAS

	Art. No.
Zeta P2 cordless biscuit joiner, DP, Set, in systainer, incl. batteries, charger type C Euro	**101801DESD**
Zeta P2 cordless biscuit joiner, DP, in systainer, without batteries without charger	**101800DESD**
Zeta P2 cordless biscuit joiner, DP, Set, in systainer, incl. batteries, charger type G	**101801GBSD**
Zeta P2 cordless biscuit joiner, DP, in systainer, without batteries without charger	**101800GBSD**

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

* Only included in Art. No. 101801DESD/101801GBSD
For other plug versions please contact your local Lamello specialist

Matching accessories starting on PAGE 170

Function

90° corner and dividing panel connection

Miter connection 45°–180° (struck from the outside)

Obtuse miter connection 22.5°–120°

Technical data

Battery voltage	18 V	Groove width	7/10 mm
Speed	9 000 min⁻¹	Groove depth max.	20 mm
P-System Cutter	Ø 100.4 × 7 × 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

| Fast conection | Automatic vertical movement | Numerous machining options |

– Biscuit joiner for the production of the form-locking P-System groove
– Extremely fast, time-saving joining method
  – Cut. Connect. Done.
– Large range of connectors for different applications
– Same application advantages as the well-known Lamello system with wooden biscuits
– Precise furniture connections in all angle and connection situations

The Zeta P2 is the biscuit joiner for P-System connectors and is used to create the form-locking P-System goove 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

	Art. No.
Zeta P2 biscuit joiner, HW, plug type F Schuko, in Systainer³ M	**101403DES**
Zeta P2 biscuit joiner, HW, plug type G, in Systainer³ M	**101403GBS**
Zeta P2 biscuit joiner, DP, plug type F Schuko, in Systainer³ M	**101403DESD**
Zeta P2 biscuit joiner, DP, plug type G, in Systainer³ M	**101403GBSD**

Kit contains: Zeta P2 biscuit joiner, DP, plug type C Euro, Clamex P drill jig incl. drill, adapter 36 mm, spacer 2 and 4 mm, set of tools, stop square

For other plug versions please contact your local Lamello specialist
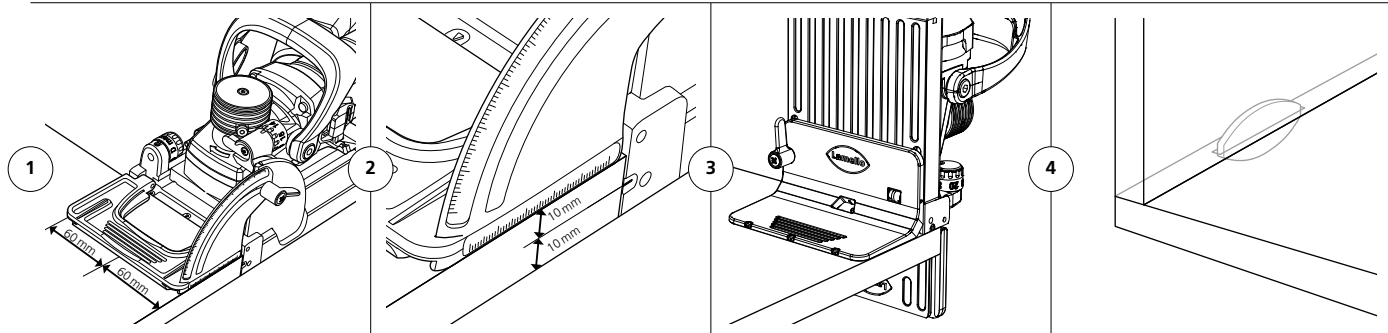

Also available as a set (see PAGE 68)

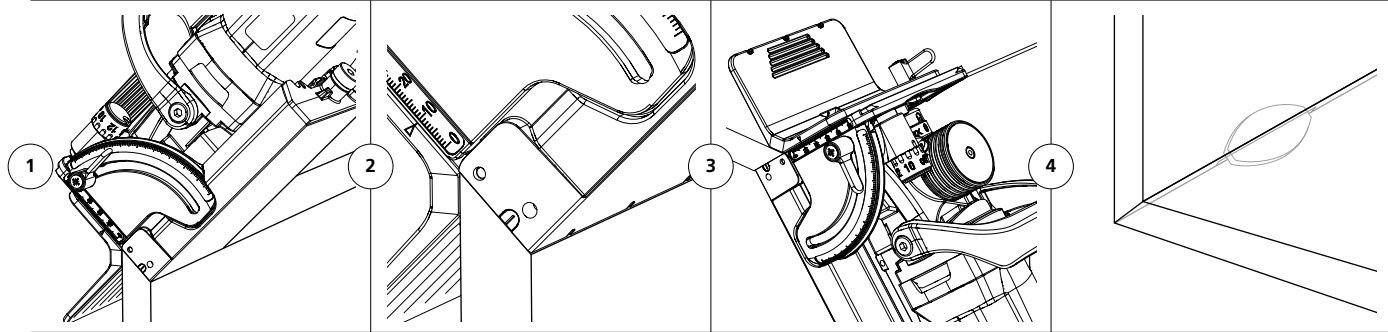**Matching accessories starting on PAGE 170**
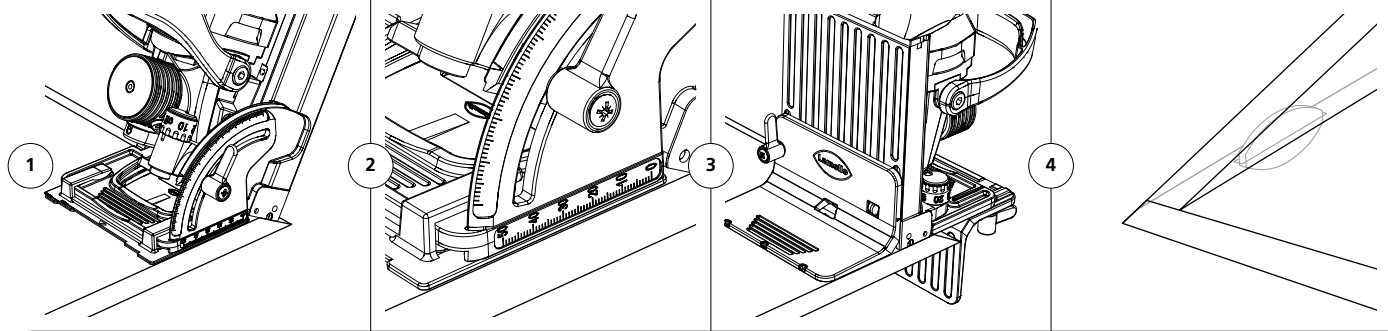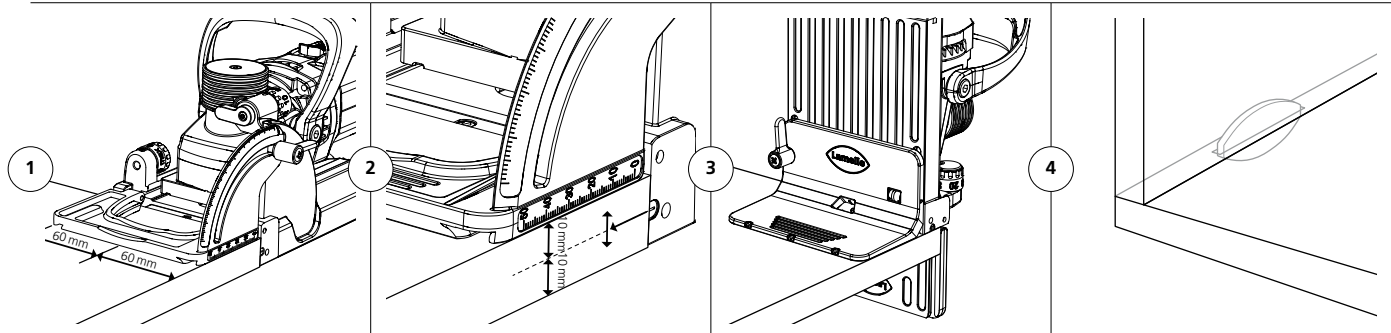
Function

90° corner and dividing panel connection

Miter connection 45° – 180° (struck from the outside)

Obtuse miter connection 22.5° – 120°

Technical data

Power/Voltage	1 050 W/230 V 800 W/120 V	Teeth	Z3
Speed	9 000 min⁻¹	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

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

Zeta P2 Set

The perfect start to the P-System

Connected in seconds …

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

Articles

The Zeta P2 Set is the comprehensive pack to get started with the P-System.
It consists of three systainers that can be stacked compactly. The first systainer
contains the Zeta P2 machine including accessories. The second systainer contains
the Divario P-18 Starter Set and the third systainer contains the most common
connectors, Clamex P-14 and Tenso P-14.

	Art. No.
Zeta P2 Set, DP, plug type F Schuko, in Systainer³ M incl. connector assortment	**101403DESET**
Zeta P2 Set, DP, plug type G, in Systainer³ M incl. connector assortment	**101403GBSET**

Scope of delivery 1st systainer:

1 pce Zeta P2 biscuit joiner, Clamex P drill jig incl. drill, adapter 36 mm,
spacer 2 and 4 mm, set of tools, stop square

Scope of delivery 2nd systainer

1 pce Divario P-18 Starter Set in Systainer³ M
Consisting of: 80 pairs Divario P-18, marking jig metal, installation tool, drill

Scope of delivery 3rd systainer:

1 pce P-System connector set in Systainer³ M
Consisting of: 80 pairs Clamex P-14, 80 pairs Tenso P-14 incl. preload tool

Advantage

… with Clamex P – detachable

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

Time for one connector pair	
1. Cut	25
2. Drill	15
3. Insert	5
4. Connect – finished!	5
Ready in	**50 s**

… with Tenso P – glued

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

Time for one connector pair	
1. Cut	25
2. Insert	5
3. Apply glue	5
4. Connect – finished!	5
Ready in	**40 s**

3-year Lamello warranty

Register now and benefit!

Comprehensive cover

By registering your new device online you can obtain an additional extension of your guarantee and comprehensive cover against repair costs for a total of three years from your purchase date.

Register now
on our website!

How do I register?

1. Website:
   Service > Guarantee registration
2. Fill out the form online

The guarantee applies exclusively to the Lamello biscuit joiners Zeta P2, Classic X and Top 21 in selected countries. Registration must take place via the Lamello website and within 30 days of purchase from an authorised dealer.

« Zeta P2 – for fast, easy and precise work. »

Jeffrey De Smet, independent carpenter, Belgium

3 year warranty

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

Clamex P-14	Clamex P-14/10 Medius	Clamex P-10
Clamex P-14/10 Flexus	Bisco P-14	Bisco P-10
Tenso P-14	Tenso P-10	Divario P-18
LC P-16		

P-System depth adjustment

10	**Depth 10** Clamex P-10, Clamex P-14/10 Medius, Bisco P-10, Tenso P-10
12	**Depth 12**
14	**Depth 14** Clamex P-14, Clamex P-14/10 Medius, Clamex P-14/10 Flexus, Bisco P-14 and Tenso P-14
15	**Depth 15**
18	**Depth 18** Divario P-18, LC P-16
OFF	Groove cuts without P-System groove = for standard

With 4 mm Lamello System groove cutter

20	10	0
E20-H	E20-L	Clamex S-20
K20	C20	C10

With 3 mm Lamello System groove cutter

H9

Lamello depth adjustment system

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

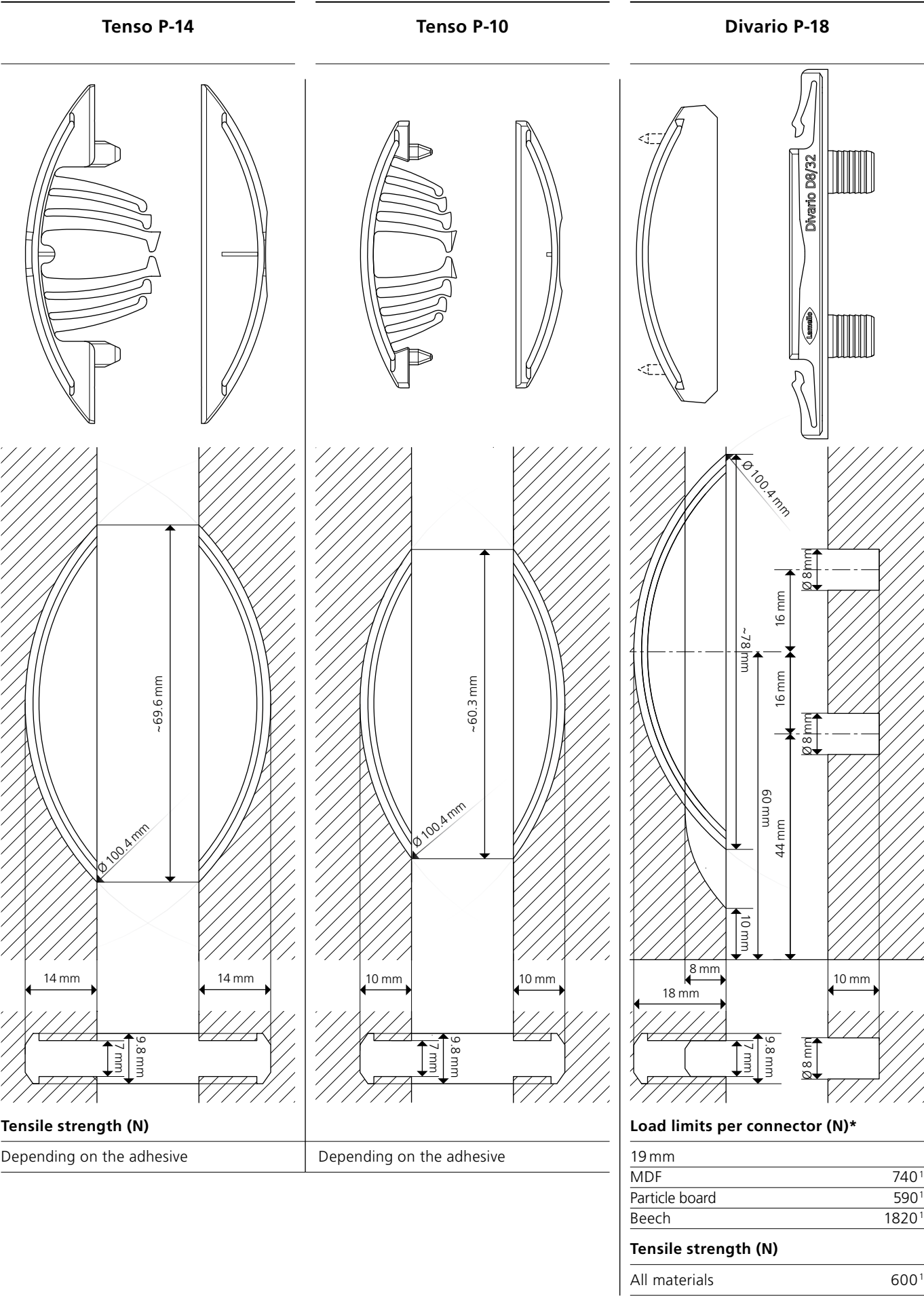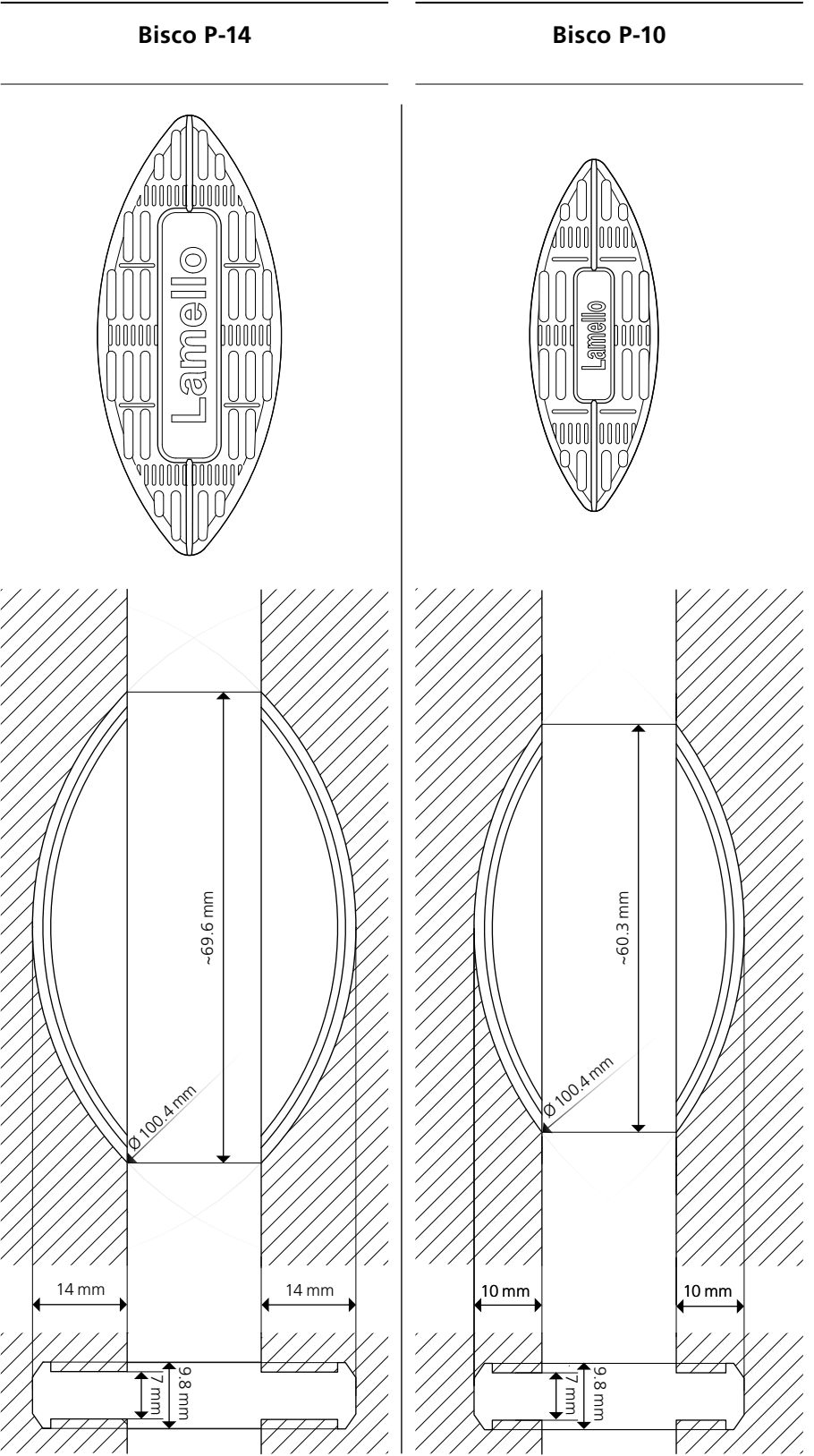# Technical information

Overview of connectors + grooves (scale 1:1)

Clamex P-14	**Clamex P-10**

Clamex P-14

7.5 mm · ~69.6 mm · Ø 5.6 mm · Ø 100.4 mm · 14 mm · 14 mm · 9.8 mm · 7 mm · 7.5 mm

Clamex P-10

5.5 mm · ~60.3 mm · Ø 5.6 mm · Ø 100.4 mm · 10 mm · 10 mm · 9.8 mm · 7 mm · 5.5 mm

Clamex P-14/10 Medius

7.5 mm · ~69.6 mm · Ø 5.6 mm · Ø 100.4 mm · 14 mm · ≥16 mm · 10 mm · 9.8 mm · 7 mm · 7.5 mm

Clamex P-14/10 Flexus

7.5 mm · ~69.6 mm · Ø 5.6 mm · Ø 100.4 mm · 14 mm · ≥16 mm · 10 mm · 9.8 mm · 7 mm · 7.5 mm

Clamex P-14 CNC with lever

Clamex P-14 without lever

7.5 mm · ~69.6 mm · Ø 5.6 mm · Ø 100.4 mm · 14 mm · 14 mm · 9.8 mm · 7 mm · 7.5 mm

Clamex P-10 without lever

~60.3 mm · Ø 100.4 mm · 10 mm · 9.8 mm · 7 mm

Clamex P-10 Medius without lever

~60.3 mm · Ø 100.4 mm · ≥16 mm · 10 mm · 9.8 mm · 7 mm

Tensile strength (N)	Up to
MDF	1210[1]
Particle board	1070[1]
Beech	1870[1]

Tensile strength (N)	Up to
MDF	700[1]
Particle board	540[1]
Beech	900[1]

Tensile strength (N)	Up to
MDF	760[1]
Particle board	680[1]
Beech	1070[1]

Tensile strength (N)	Up to
MDF	790[1]
Particle board	710[1]
Beech	1190[1]

Tensile strength (N)	Up to	Up to	Up to
MDF	1210[1]	950[1]	810[1]
Particle board	1000[1]	880[1]	730[1]
Beech	1660[1]	1560[1]	1220[1]

[1] See comment on load limits on **PAGE 185**

Technical information

Overview of connectors + grooves (scale 1:1)

Bisco P-14	Bisco P-10

14 mm | 14 mm
~69.6 mm
Ø 100.4 mm
9.8 mm / 7 mm

10 mm | 10 mm
~60.3 mm
Ø 100.4 mm
9.8 mm / 7 mm

Tenso P-14	Tenso P-10	Divario P-18

Tensile strength (N)

Tenso P-14	Tenso P-10
Depending on the adhesive	Depending on the adhesive

Load limits per connector (N)*

19 mm	
MDF	740[1]
Particle board	590[1]
Beech	1820[1]

Tensile strength (N)

All materials	600[1]

Technical information

Overview of connectors + grooves (scale 1:1)

LC P-16 × 11	LC P-16 × 17	LC P-16 × 22

7.5 mm ~60.3 mm ~73.5 mm Ø 6 mm Ø 100.4 mm
16 mm 10 mm
3.5 11 mm 3.5 9.8 mm 7 mm
7.5 mm

7.5 mm ~60.3 mm ~73.5 mm Ø 6 mm Ø 100.4 mm
16 mm 10 mm
3.5 8.5 mm 17 mm 9.8 mm 7 mm 3.5
7.5 mm

7.5 mm ~60.3 mm ~73.5 mm Ø 6 mm Ø 100.4 mm
16 mm 10 mm
3.5 22 mm 9.8 mm 7 mm 3.5
7.5 mm

Tensile strength 90° (N)

Surface layer / Interlayer	Up to		Up to		Up to
MDF / Corrugated wood fibre	680[1]	MDF / Corrugated wood fibre	670[1]	MDF / Corrugated wood fibre	1100[1]
Particle board / Cardboard honeycomb	460[1]	Particle board / Cardboard honeycomb	410[1]	Particle board / Cardboard honeycomb	870[1]

[1] See comment on load limits on **PAGE 185**

« *The Zeta P2 gives me complete design freedom, is efficient and allows for precise work.* »

Mila Muller, Story Design Amsterdam, Netherlands

Lamello System

The original for efficient, intuitive and precise joints
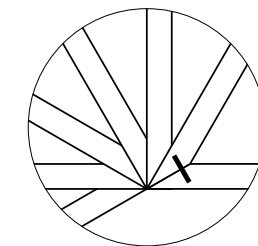
Features

Versatile use

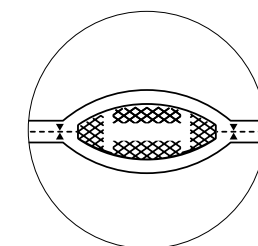One cutting principle for many different joining elements

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

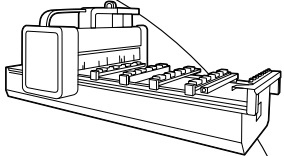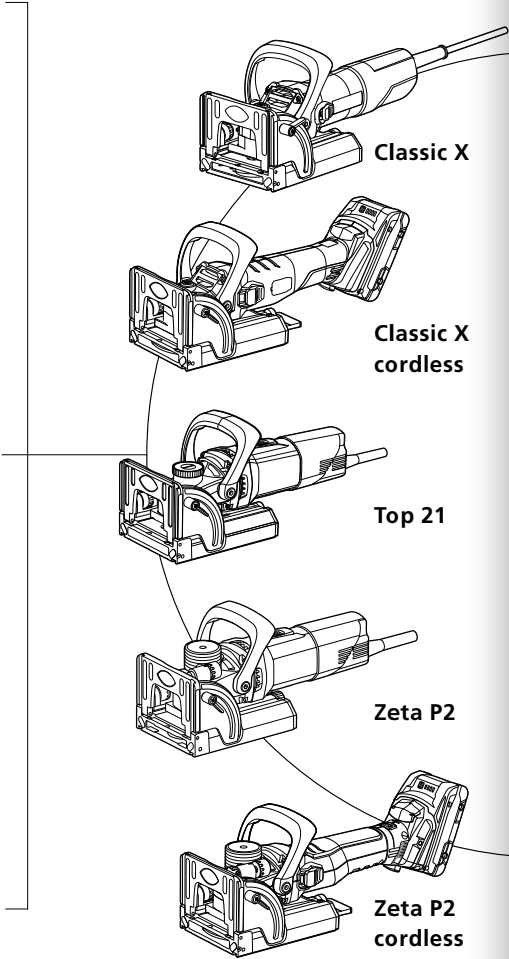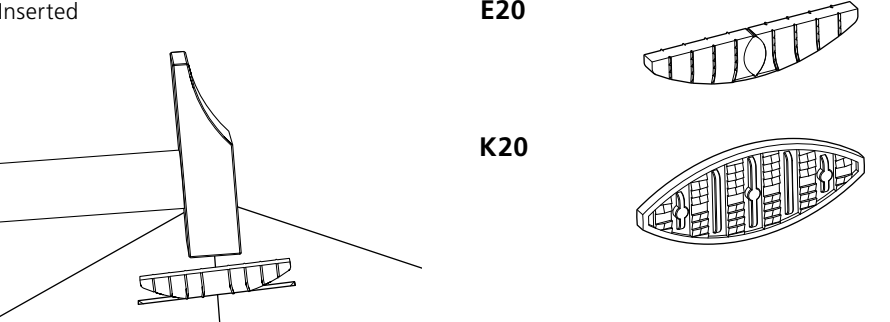The minimal element depth allows for mitres of 22.5 – 180 degrees as well as surface and corner joints and divisions
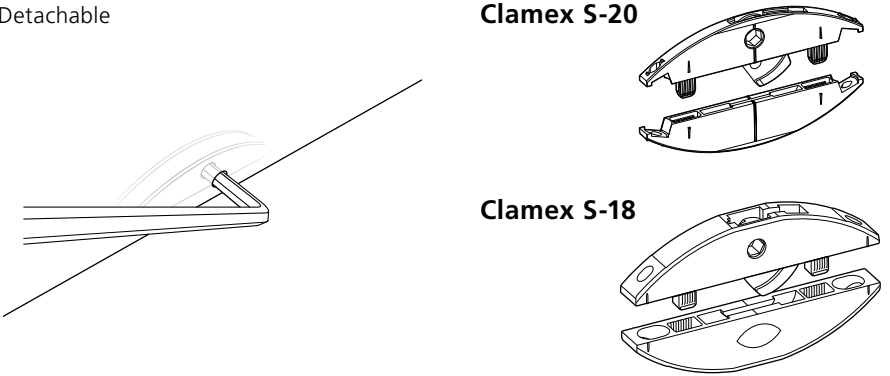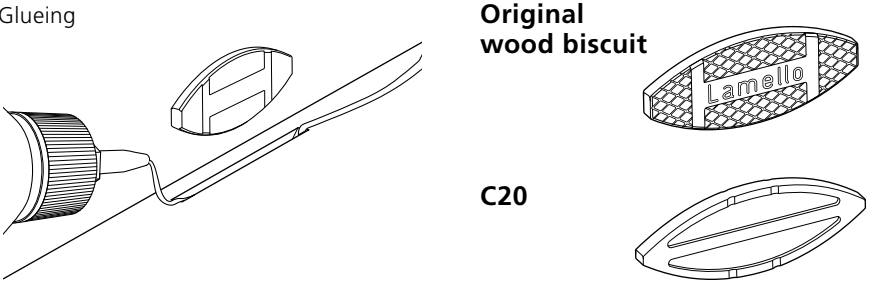
Symmetrical

The identical groove in both workpieces leads to an increase in efficiency in production
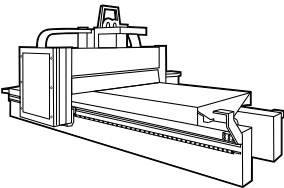
Lamello System

Overview

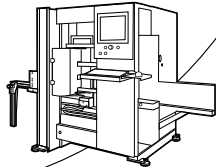| Features	Connector	Machines		Sequence			
		Power tools	**CNC machines**	**1** Cut	**2** Apply glue	**3** Insert the connector	**4** Clamp

Glueing

Original wood biscuit

C20

Classic X

Classic X cordless

Detachable

Clamex S-20

Clamex S-18

CNC processing centres with **consoles**
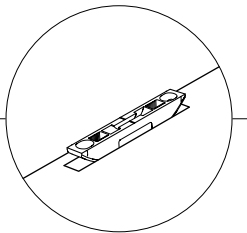
CNC processing centres with **nesting technology**

Top 21

Inserted

E20

K20

Zeta P2

Zeta P2 cordless

CNC processing centres **vertical**

« Dividing large rear panels for transport and reconnecting them on site? Very easy with the Clamex S-20. »

Simon Jeggli, Killer AG, Lupfig, Switzerland

Lamello System

Applications

Furniture manufacturing

Original wooden biscuit 20

Original wooden biscuit 0

Original wooden biscuit 10

Interior fitting

Original wooden biscuit 20

Clamex S-20

E20-L

Lamello System

Applications

Kitchen manufacturing

Clamex S-18

C20

Clamex S-18

Commercial joinery

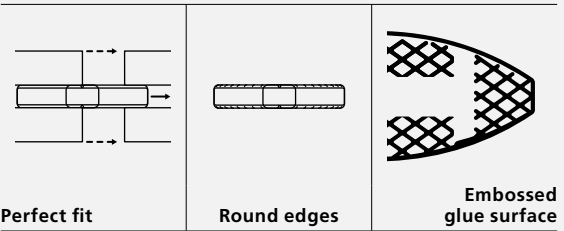

Clamex S-20

K20

Original wooden biscuit H9

Shop fitting

Original wood biscuit

The original wood biscuit that always fits

Features

| Perfect fit | Round edges | Embossed glue surface |

– Original wooden biscuit for joints in wood and panel materials
– Proven system for angle and miter joints from 22.5° to 180°
– Four sizes for a wide range of applications
– Optimized surface structure for perfect fitting accuracy and glue distribution
– Ideal for various applications in furniture construction and interior fittings

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.
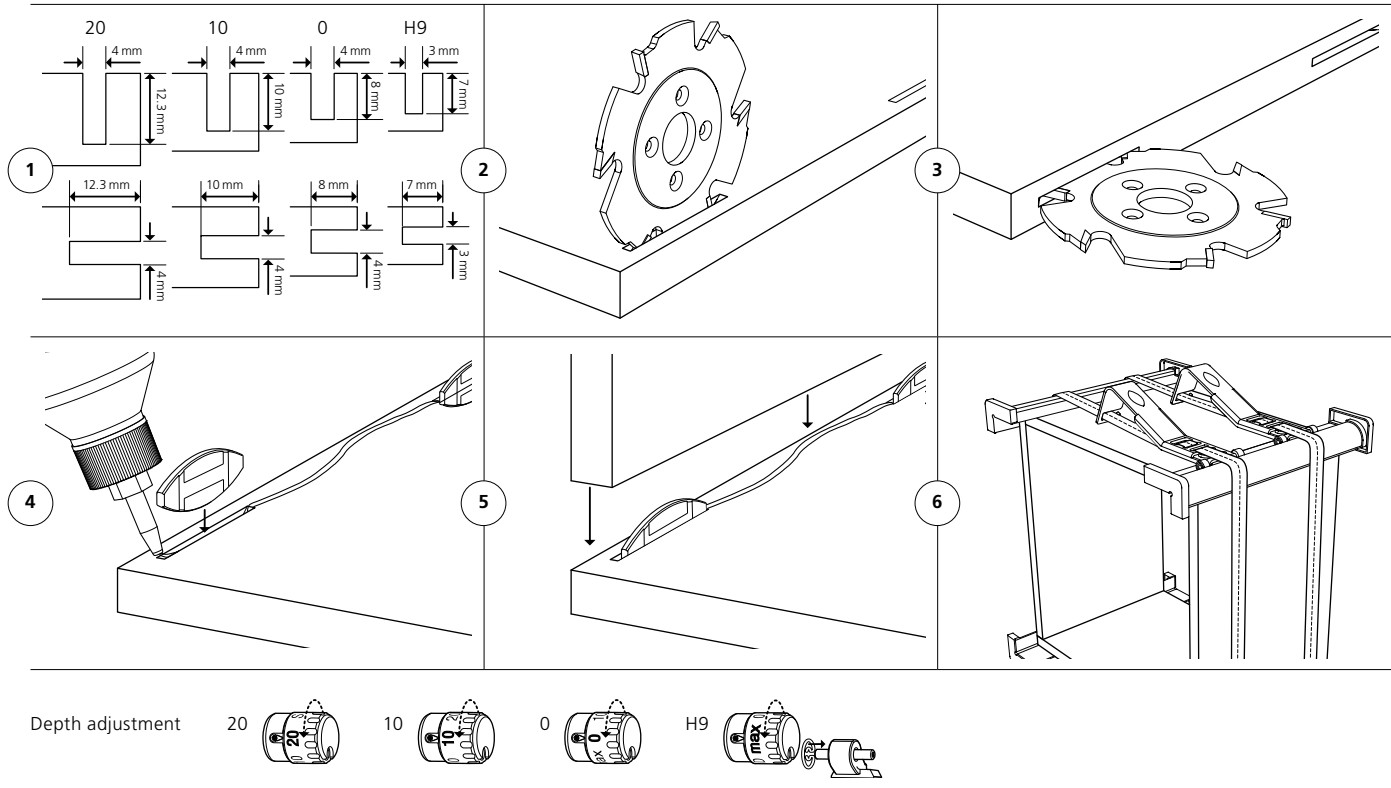
Articles

	Art. No.
Original wood biscuit 20, 1000 pieces	**144020**
Original wood biscuit 10, 1000 pieces	**144010**
Original wood biscuit 0, 1000 pieces	**144000**
Original wood biscuit H9*, 1000 pieces	**144009**
Original wood biscuit assorted Kit contains: 250 × Original wood biscuit 0, 250 × Original wood biscuit 10, 500 × Original wood biscuit 20	**144030**

* 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)

Matching accessories starting on PAGE 170

Installation

Depth adjustment   20   10   0   H9

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.

E20

The self-clamping element

Features

| Connects and clamps | Simultaneous groove cut | Perfect fit |

- Self-clamping leement in size 20 for gluing
- Connects and tensions the joint when hammered into the 4 mm groove
- Two versions for surface or edge connections
- Efficient machining thanks to simultaneous cutting of both workpieces
- Ideal for picture frames, plinth extensions, connection solution on the construction site

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

	Art. No.
E20-H self-clamping element, 80 pieces	**145021**
E20-H self-clamping element, 400 pieces	**145026**
E20-H self-clamping element, 1200 pieces	**145028**

E20-I self-clamping element, 80 pieces	**145022**
E20-L self-clamping element, 400 pieces	**145025**
E20-L self-clamping element, 1200 pieces	**145027**

E20-L/E20-H self-clamping element assorted, 40/40 pieces	**145020**

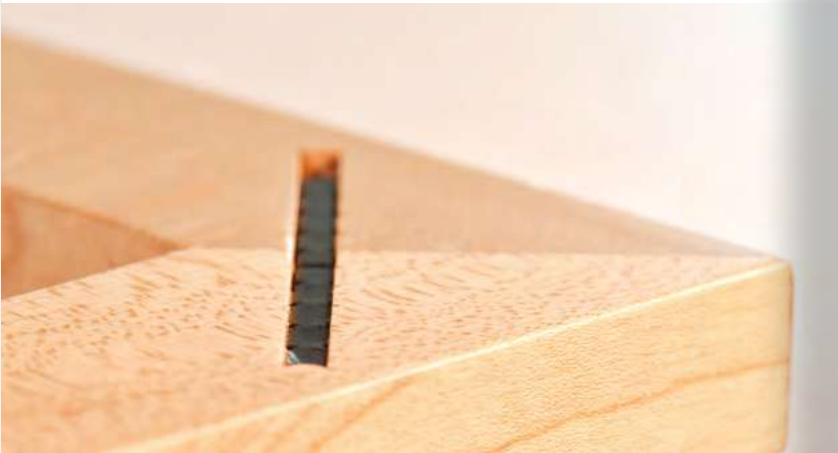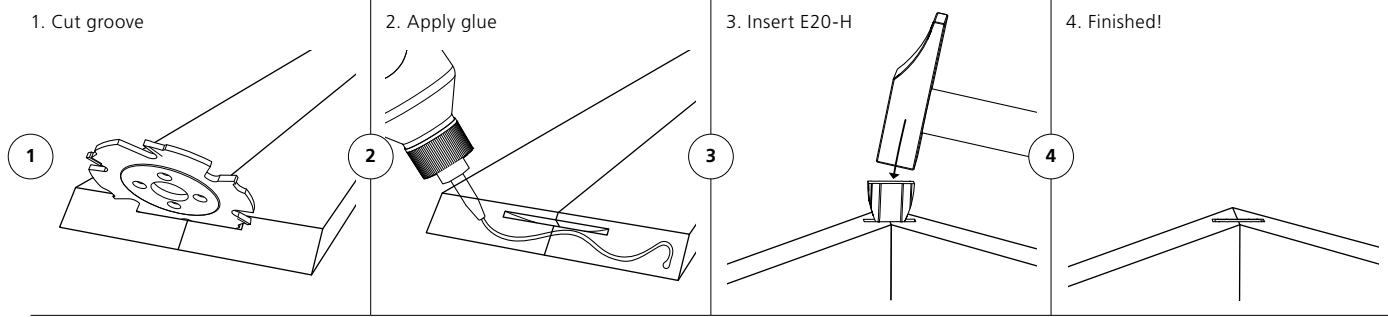**Matching accessories starting on PAGE 170**

Installation

E20-H

| 1. Cut groove | 2. Apply glue | 3. Insert E20-H | 4. Finished! |

Depth adjustment   E20-H

E20-L

| 1. Cut groove | 2. Apply glue | 3. Insert E20-L | 4. Finished! |

Depth adjustment   E20-L

Technical data

Joining methods

E20-H	E20-L
≥ 8 mm	≥ 8 mm
≥ 29 mm	≥ 13 mm
≥ 14 mm / ≥ 14 mm	≥ 25 mm / ≥ 25 mm

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.

See **PAGE 117** for technical specifications

Clamex S-20

Detachable furniture connector for the 4 mm groove

Features

Detachable | **4 mm installation principle** | **Thin materials**

- Detachable furniture connector with 4 mm thickness, fastened with screws
- Size 20, ideal for thin materials, from 14 mm material thickness
- Aesthetic look with the barely visible 6 mm access hole
- All angle and miter joints from 22.5° to 180°
- Ideal for furniture with slopes, thin materials, kitchen worktops in HPL

Clamex S-20 is a detachable connector for the Lamello system for material thicknesses from 16 mm and is fastened in the groove with screws. The symmetric 4 mm grooves can be created with any biscuit joiner. Clamex S-20 is connected to the counterpart with a lever and has a lateral installation tolerance. It requires no adhesive, enables aesthetic connections at all angles and is ideal for fixed or detachable connections.
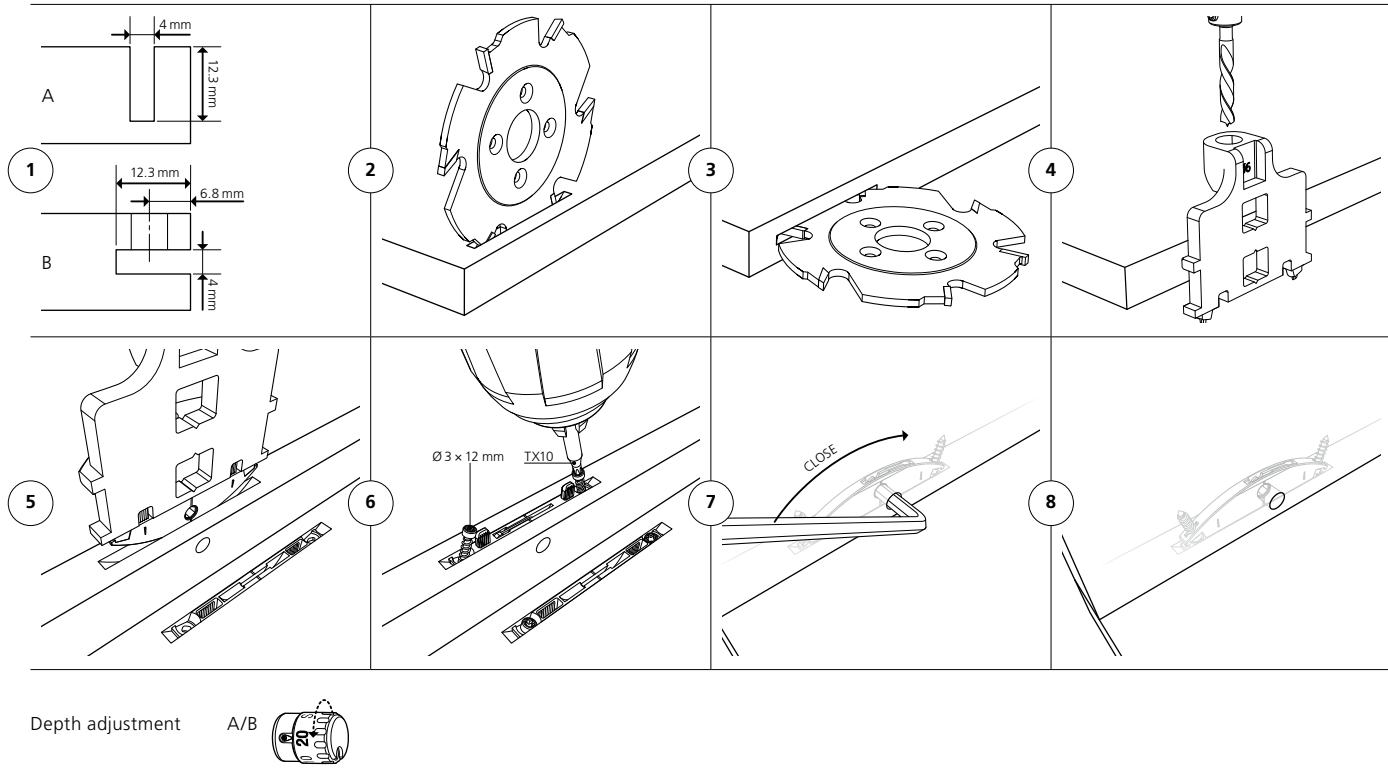
Articles

	Art. No.
Clamex S-20, 20 pairs, incl. screws	**145243**
Clamex S-20, 80 pairs, incl. screws	**145244**
Clamex S-20, 300 pairs	**145245**
Clamex S-20, 1000 pairs	**145246**

Clamex S-20 screw Ø 3 × 12 mm, 1500 pieces	**125255**

Clamex S-20 Starterset, in Systainer³ M 137   **145247**
Scope of delivery: 145244 Clamex S-20, 80 pairs, incl. screws, 125253 Clamex S-20 drill jig inlc. drill Ø 6 mm, 251993 Clamex P Installation tool

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Technical data

Joining methods

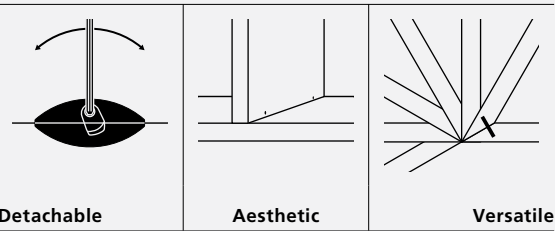| Size	59 × 12 × 3.9 mm		
Cutter	Ø 100 × 4 × 22 mm		
Material connector	Fiberglass reinforced plastic		
Material of lever	Zinc die cast		
Screw	3 × 12 mm		
Installation tolerance	Long. ± 1 mm/radial ± 0 mm		
Clamping force (N) Up to	MDF 680[1]	Particle board 490[1]	Beech 620[1]
Material range	Particle board, MDF, plywood, hardwood, HPL etc.		

Clamex S-18

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

Features

| Detachable | Aesthetic | Versatile |

– Detachable furniture connector with 8 mm thickness, fastened with screws
– Aesthetic look with the barely visible 6 mm access hole
– All angle and miter joints from 22.5° to 180°
– High clamping force for perfectly closed joints
– Ideal for open shelves, cupboards or wardrobes under sloping roofs

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.
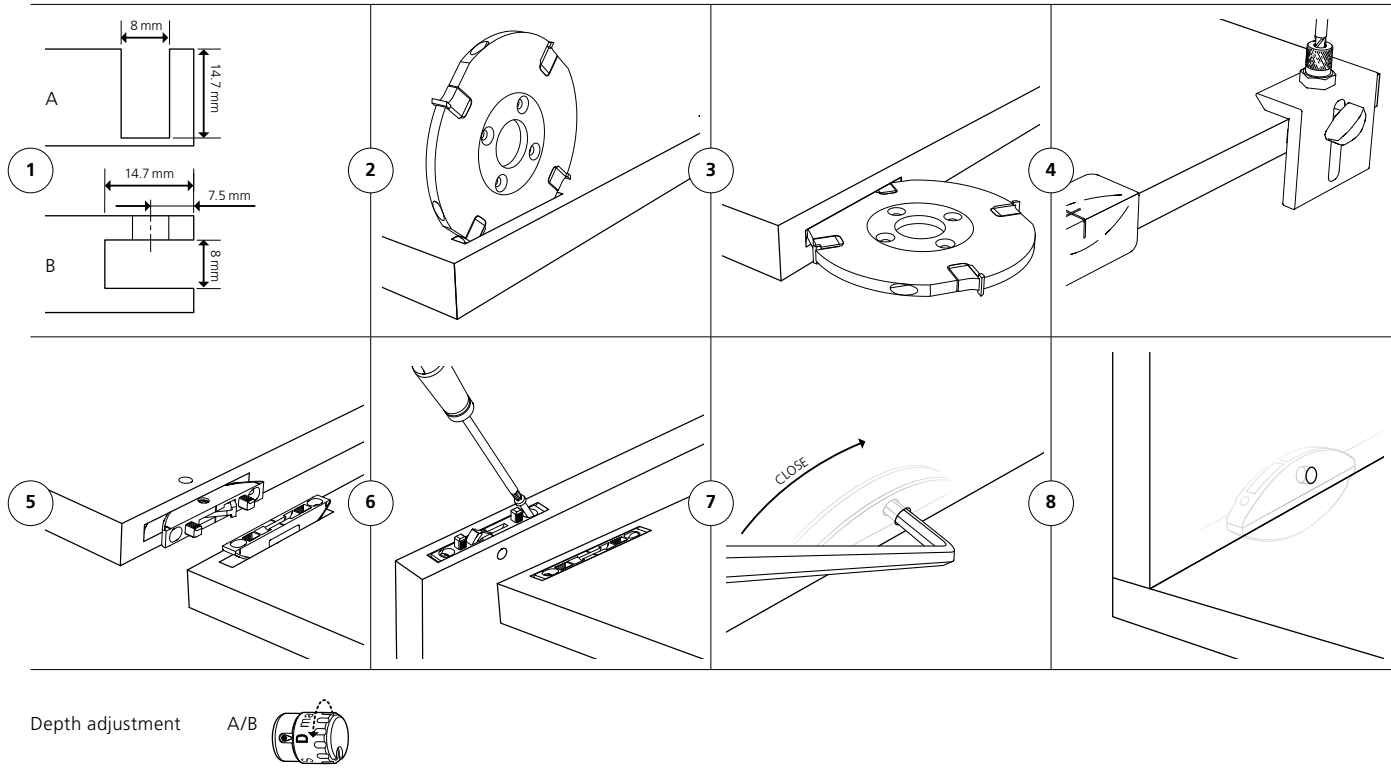
Articles

	Art. No.
Clamex S-18, 18 pairs, incl. marking jig and screws	**145231**
Clamex S-18, 80 pairs, incl. marking jig	**145236**
Clamex S-18, 300 pairs, incl. marking jig	**145241**
Clamex S-18, 1000 pairs, incl. marking jig	**145251**

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

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Technical data

Joining methods

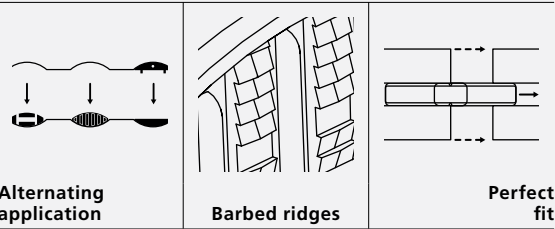| Size	66 × 29 × 8 mm		
Cutter	Ø 100 × 8 × Ø 22 mm		
Material connector	Fiberglass reinforced plastic		
Material of lever	Zinc die cast		
Screw	3 × 16 mm		
Installation tolerance	Long. ± 1.0 mm		
Clamping force (N) Up to	MDF 790[1]	Particle board 550[1]	Beech 1420[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

K20

The clamping element, which
holds the workpiece in position

Features

Alternating application | **Barbed ridges** | **Perfect fit**

– Clamping element in size 20 for gluing
– Lateral barbed ribs hold components in
  position
– Application in combination with wooden
  biscuits for high joint strength
– All angle and miter joints from 22.5° to 180°
– Ideal for fillers or covers

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 themsleves 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 combi-
nation with the original wood biscuits size 20
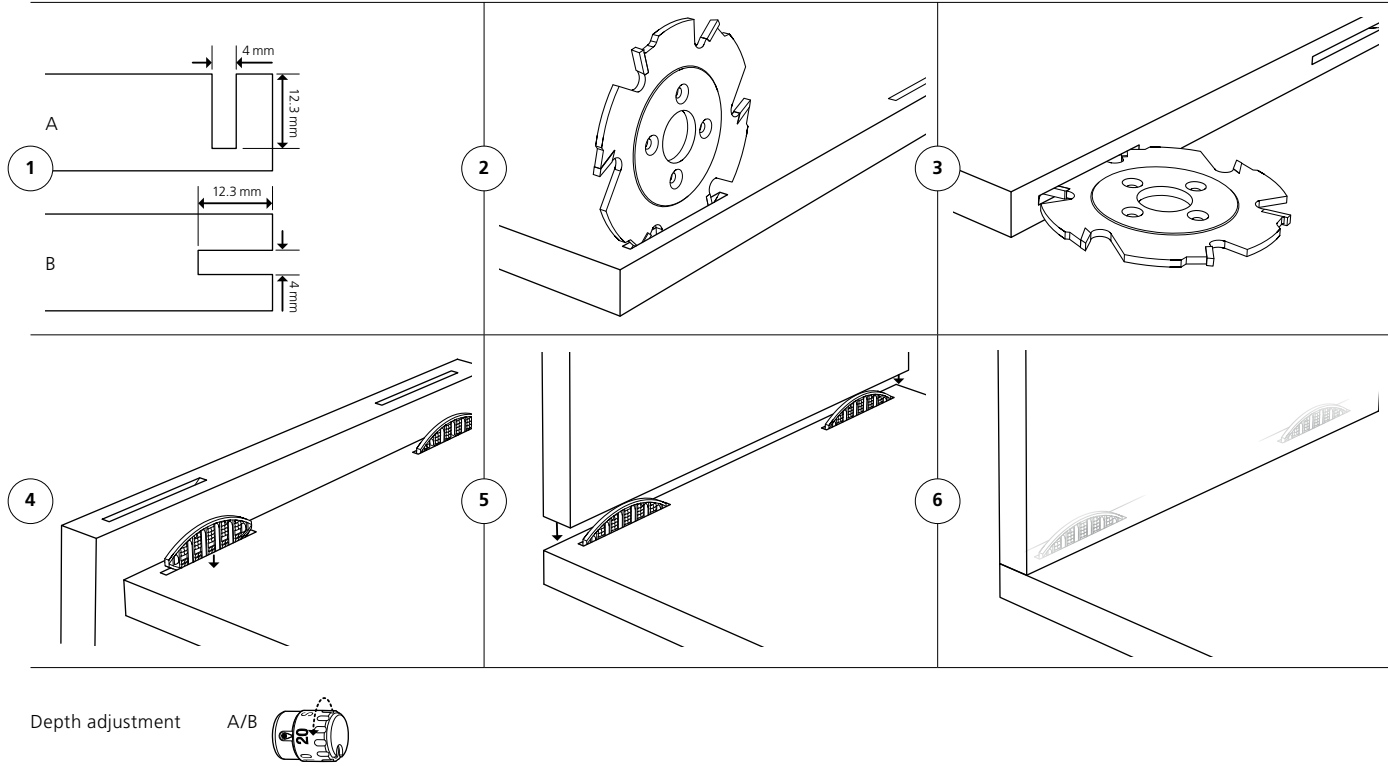results in a joint with high strength.

Articles

	Art. No.
K20 clamping element, 80 pieces	**145001**
K20 clamping element, 250 pieces	**145000**
K20 clamping element, 2500 pieces	**145000I**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B

Technical data

Joining methods

≥ 6 mm   ≥ 8 mm   ≥ 25 mm

≥ 14 mm   ≥ 13 mm   ≥ 6 mm

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 117** for technical specifications

C20/C10

The transparent element

Features
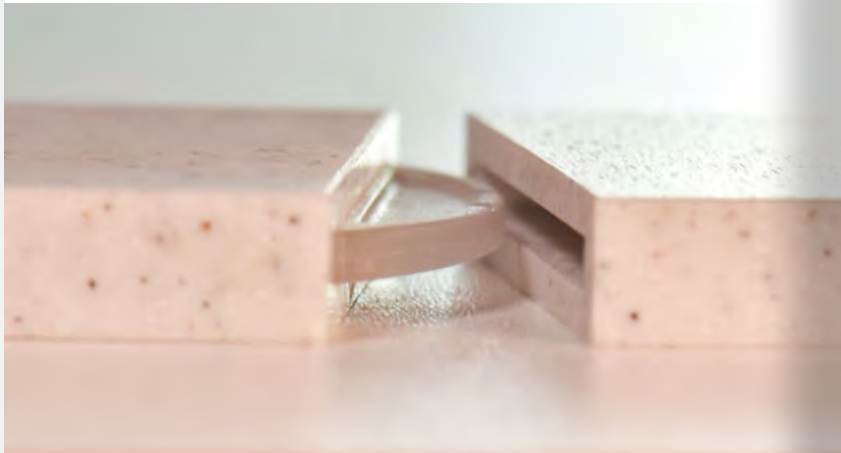

| Transparent | No swelling | Perfect fit |

- Transparent plastic biscuit for solid surface materials
- No show-through of the connector in thin, white solid surface materials
- No swelling in contact with moisture
- All angle and miter joints from 22.5° to 180°
- Ideal for store counters, kitchen tops and for wet or outdoor areas

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.
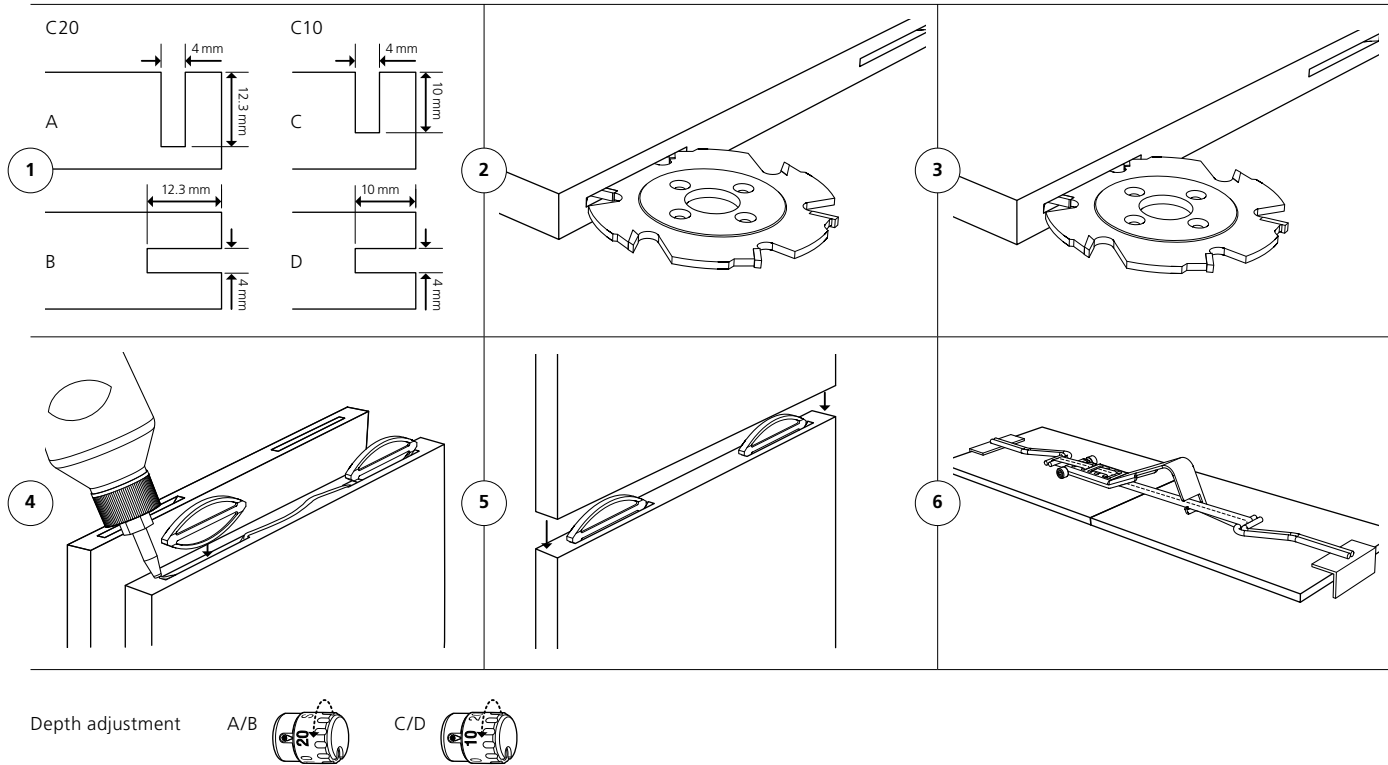
Articles

	Art. No.
C20 transparent element, 250 pieces	**145010**
C20 transparent element, 2500 pieces	**145010I**

C10 transparent element, 300 pieces	**145012**

Matching accessories starting on PAGE 170

Installation

Depth adjustment   A/B   C/D

Technical data

Joining methods

C20

C10

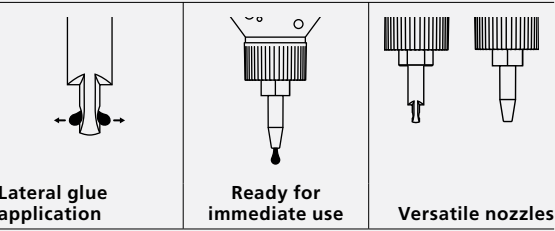| Size C20	61 × 23 × 4 mm
Size C10	53 × 19 × 4 mm
Cutter	Ø 100 × 4 × Ø 22 mm
Material connector	Plastic
Installation tolerance	Long. ± 1.0 mm/radial ± 1.0 mm
Clamping force (N)	Depending on the adhesive
Material range	Mineral material panels (e.g. Corian)

Minicol

The all purpose glue applicator

Features

| Lateral glue application | Ready for immediate use | Versatile nozzles |

- Practical glue bottle for applying white glue (PVAC)
- Downward-facing bearing for immediate use
- Lamella nozzle with lateral glue outlet for better distribution
- Pointed nozzle for universal use
- For gluing wooden joints with wooden biscuits

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.
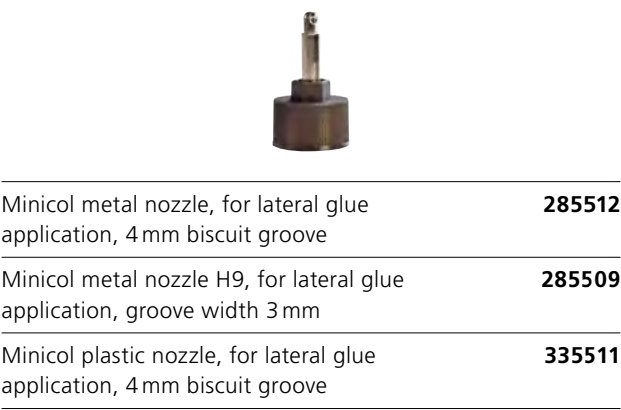
Articles

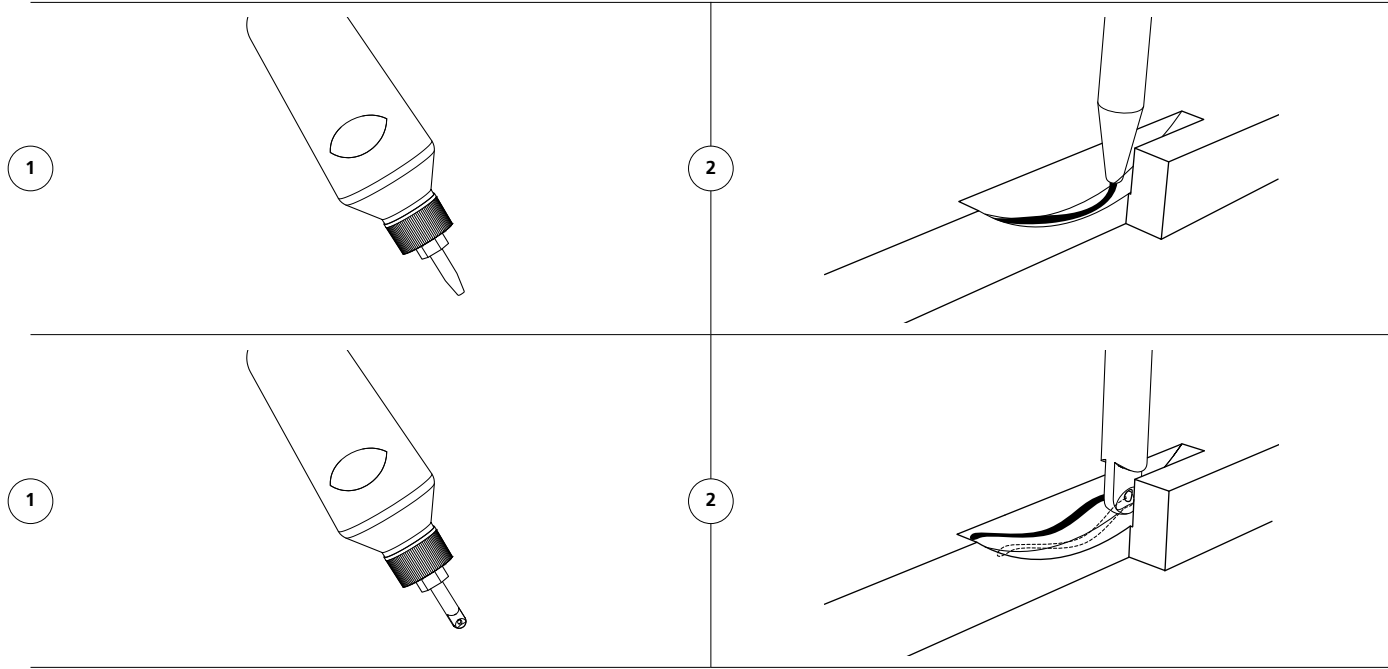|	Art. No.
Minicol glue applicator, incl. plastic nozzle for lateral glue application	**175500**
Minicol glue applicator, incl. metal nozzle for lateral glue application	**175550**

Minicol pointed nozzle	**335522**

Minicol metal nozzle, for lateral glue application, 4 mm biscuit groove	**285512**
Minicol metal nozzle H9, for lateral glue application, groove width 3 mm	**285509**
Minicol plastic nozzle, for lateral glue application, 4 mm biscuit groove	**335511**

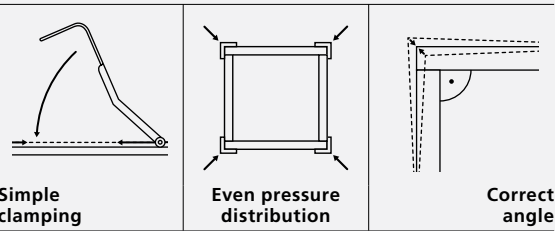## Function

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

| Simple clamping | Even pressure distribution | Correct angle |

– Clamping system for timber joints, suitable for the Lamello system
– Even pressure distribution across all joints
– Automatic clamping at right angles
– Buckle for clamps, clamping straps and edge profiles in various lengths
– For gluing drawers or carcasses

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

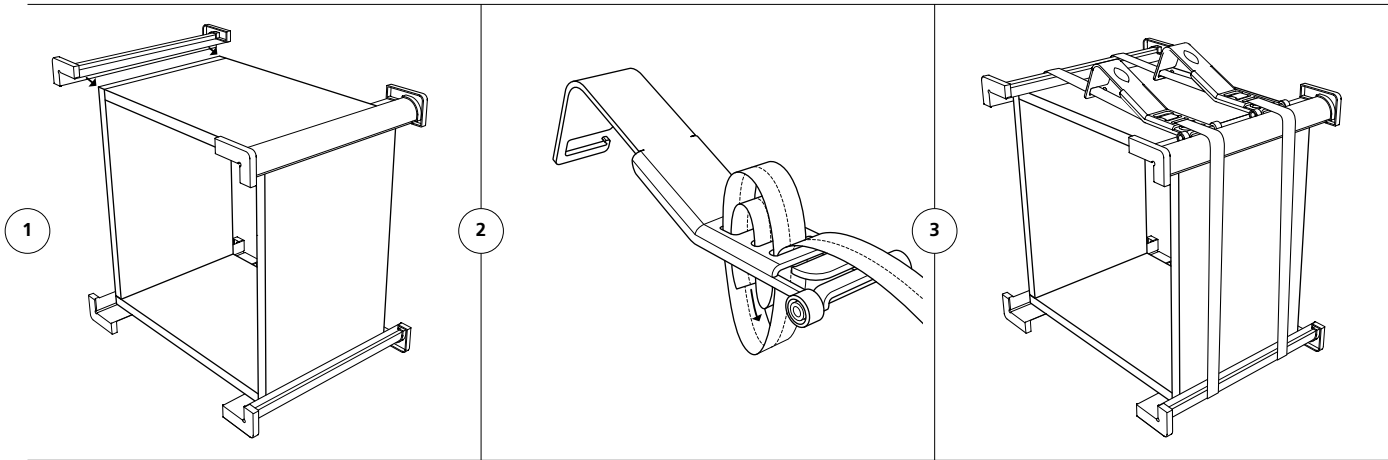|	Art. No.
Clamping Set 20 cm	**175021**
Scope of delivery: 4 pieces profile sections 20 cm, buckle for clamps incl. strap 8 m	
Clamping Set 60 cm	**175020**
Scope of delivery: 4 × profile sections 60 cm, 2 × buckles for clamps incl. strap 8 m, 2 × tension hooks	

Clamping Set tension hooks	**175200**

Clamping Set aluminium profiles, 4 pieces, L 12 cm	**175401**
Clamping Set aluminium profile, 4 pieces, L 40 cm	**175402**
Clamping Set aluminium profiles, 4 pieces, L 60 cm	**175403**

Function

1   2   3

Technical data

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

Classic X cordless

The original biscuit joiner –
precise and cordless

Features

Highest precision	Numerous machining options	Cordless freedom

- Cordless biscuit joiner to produce the 4 mm groove for the Lamello system
- Maximum freedom of movement in the workshop or on the construction site
- Maximum precision for high-quality timber joints
- Multifunctional stop square and swivel stop with fixed pivot point
- Optimum user-friendliness for precise connections

Classic X cordless is the original biscuit joiner without cable to create the 4 mm groove. It is fast, mobile and versatile in use and forms the basis for the wide range of fixed, self-clamping and detachable connectors. Precision in every component leads to perfect accuracy of the workpieces and saves time. The multifunctional stop square enables perfect mitre joints to be made by applying the machine on the exterior surface and stabilises it in vertical position.

Articles

CAS

	Art. No.
Classic X cordless biscuit joiner, Set, in systainer, incl. batteries, charger type C Euro	**101701DES**
Classic X cordless biscuit joiner, in systainer, without batteries without charger	**101700DES**
Classic X cordless biscuit joiner, in carton, without batteries without charger	**101700DEK**
Classic X cordless biscuit joiner, Set, in systainer, incl. batteries, charger plug type G	**101701GBS**
Classic X cordless biscuit joiner, in systainer, without batteries without charger	**101700GBS**
Classic X cordless biscuit joiner, in carton, without batteries without charger	**101700GBK**

Kit contains: Classic X cordless biscuit joiner, 2 × Battery pack 18V, LiHD 4.0 Ah*, Battery charger ASC 55*, suction stub 36 mm, stop square, spacer 4 mm, dust bag, tool set
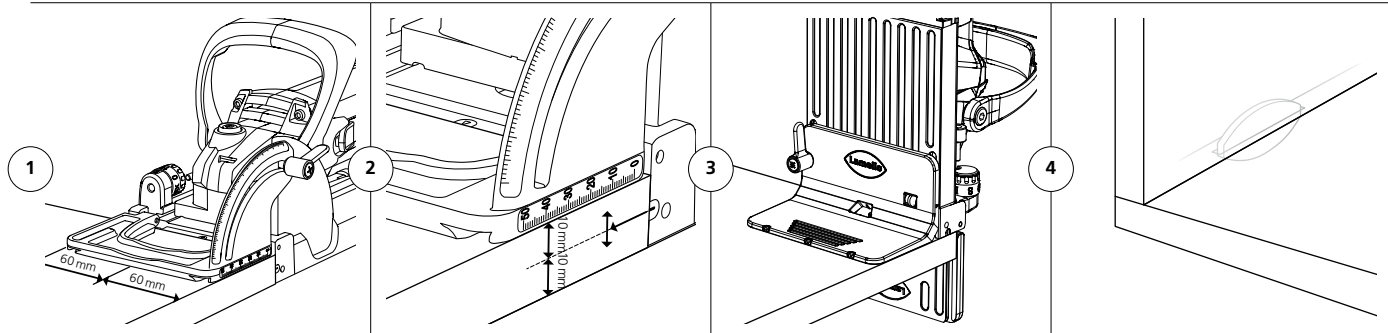
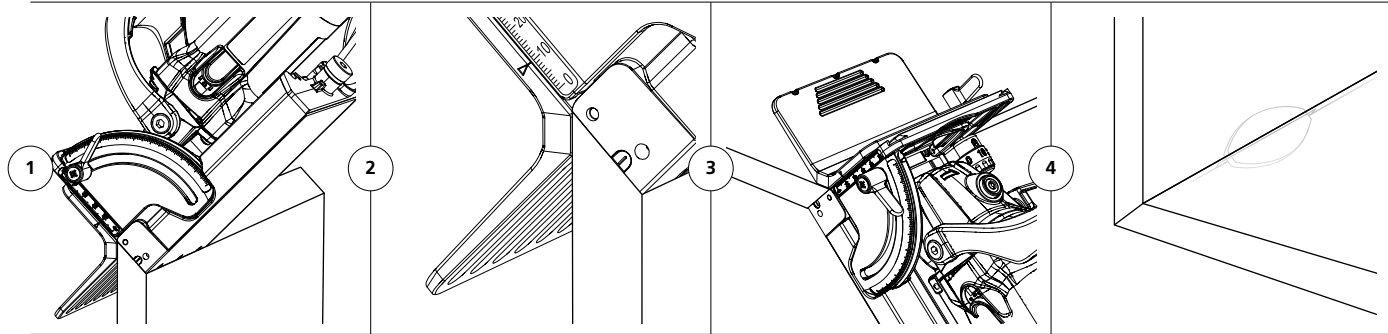** Only included in Art. No. 101701DES/101701GBS For other plug versions please contact your local Lamello specialist*
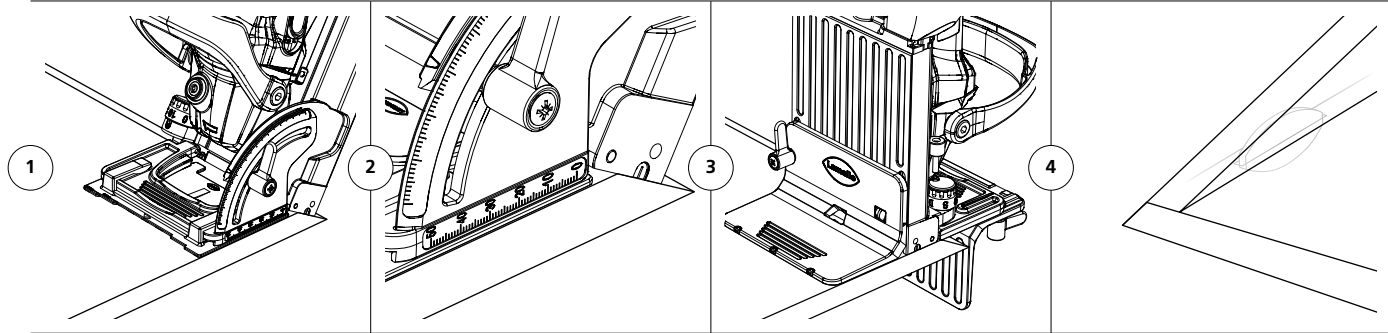

Matching accessories starting on PAGE 170

Function

90° corner and dividing panel connection

| 1 | 2 | 3 | 4 |

Miter connection 45° – 180° (struck from the outside)

| 1 | 2 | 3 | 4 |

Obtuse miter connection 22.5° – 120°

| 1 | 2 | 3 | 4 |

Technical data

Battery voltage	18 V	Groove width	4 mm
Speed	6 000 min⁻¹	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

| Highest precision | Numerous machining options | Stabilising stop square |

- Biscuit joiner to produce the 4 mm groove for the Lamello system
- Maximum precision for high-quality timber joints
- Multifunctional stop square and swivel stop with fixed pivot point
- Optimum user-friendliness for precise connections
- Attachment plate for individual adjustment of the groove position

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

	Art. No.
Classic X biscuit joiner, plug type F Schuko, in Systainer³ M	**101602DES**
Classic X biscuit joiner, plug type F Schuko, in carton	**101602DEK**
Classic X biscuit joiner, plug type G, in Systainer³ M	**101602GBS**
Classic X biscuit joiner, plug type G, in carton	**101602GBK**

Kit contains: Classic X biscuit joiner, plug type C Euro, suction stub 36 mm, stop square, spacer 4 mm, set of tools

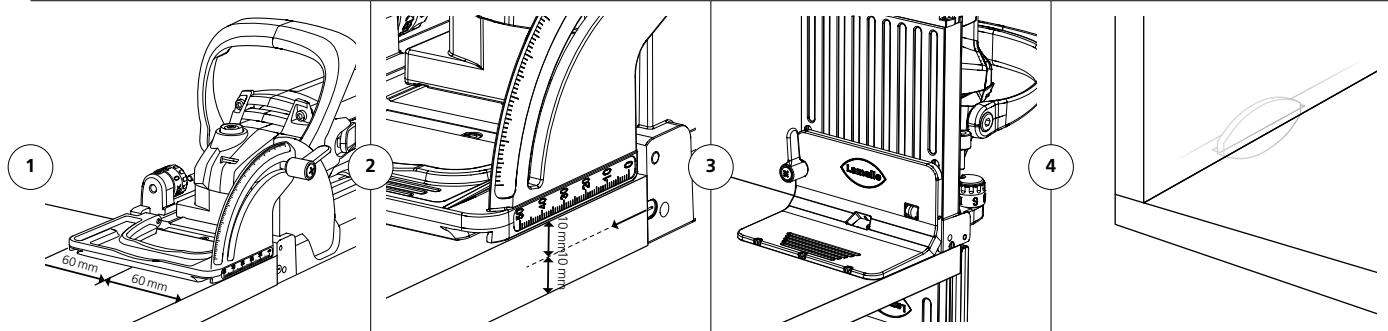*For other plug versions please contact your local Lamello specialist*
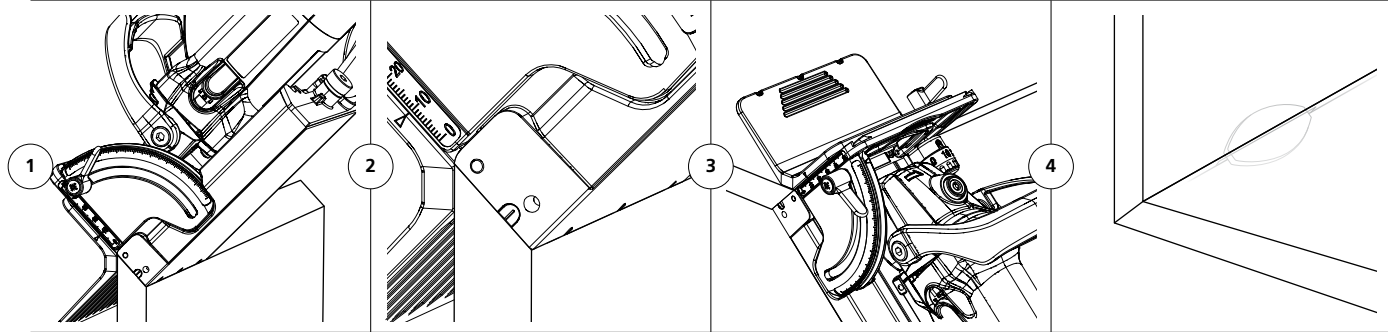

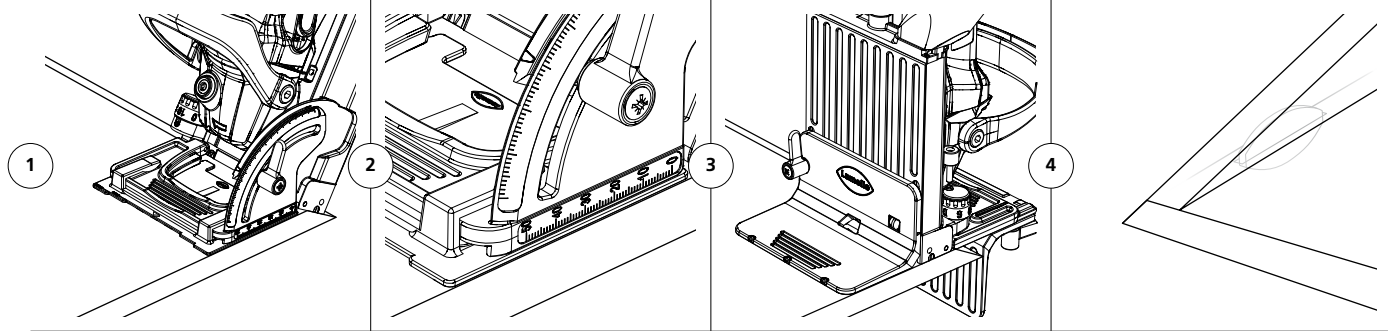**Matching accessories starting on PAGE 170**

Function

90° corner and dividing panel connection

Miter connection 45° – 180° (struck from the outside)
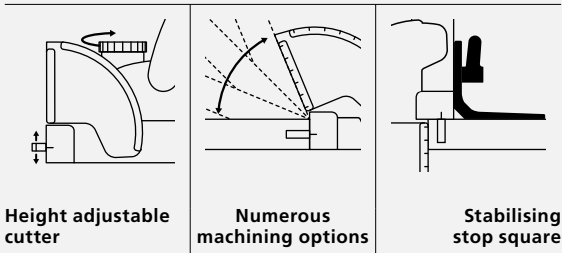

Obtuse miter connection 22.5° – 120°

Technical data

Power/Voltage	850 W / 230 V or 120 V	Teeth	Z6 (3+3) with reversing teeth
Speed	10 000 min⁻¹	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	Numerous machining options	Stabilising stop square

– Biscuit joiner with height adjustment for
producing of the 4 mm groove
– Maximum precision for high-quality timber
joints
– Multifunctional stop square and swivel stop
with fixed pivot point
– Optimum user-friendliness for precise
connections
– Positioning of the groove in the centre of
the workpiece, connections with protruding
edge

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

	Art. No.
Top 21 biscuit joiner, plug type F Schuko, in Systainer³ M	**101501DES**
Top 21 biscuit joiner, plug type G, in Systainer³ M	**101501GBS**
Top 21 biscuit joiner, plug type F Schuko, in Systainer³ M with WS-cutter	**101501DESW**

Kit contains: Top 21 biscuit joiner, plug type F Schuko,
suction stub 36 mm, carbide reversing blade cutter, spacer
4 mm, set of tools, stop square, dust bag

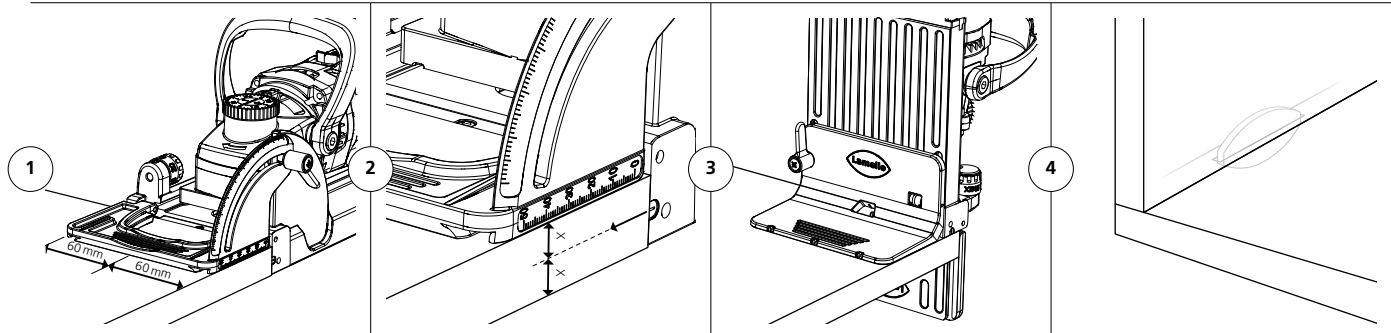*For other plug versions please contact your local Lamello specialist*

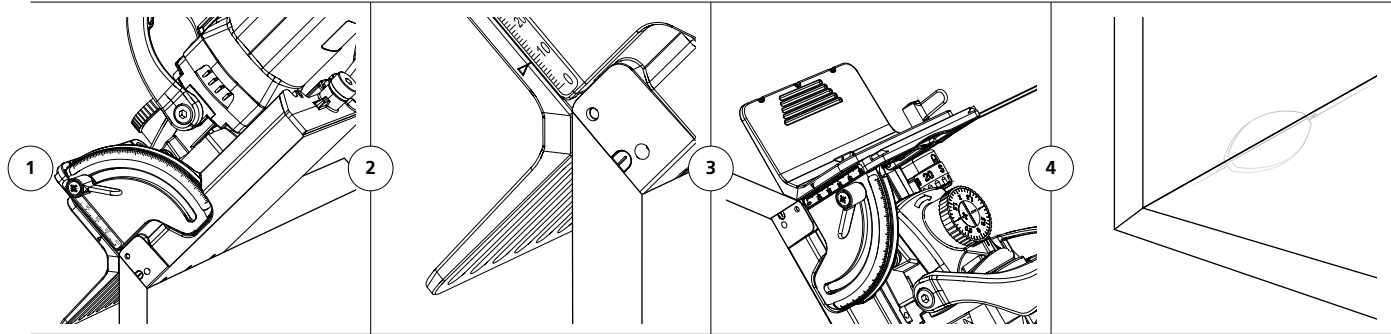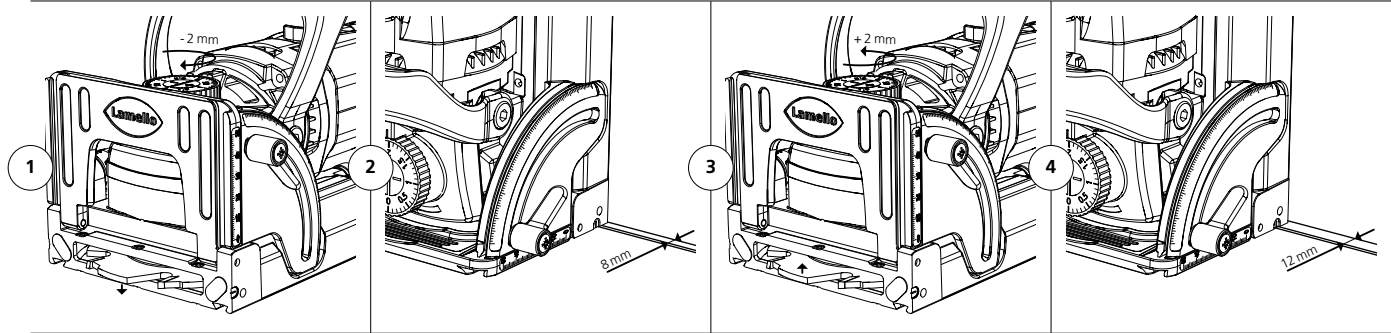**Matching accessories starting on PAGE 170**

Function

90° corner and dividing panel connection

Miter connection 45° – 180° (struck from the outside)

Height-adjustable cutter

Technical data

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

Original Lamello biscuit joiners

These properties make the difference

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.

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

1.

2.

– **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

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With 4 mm Lamello System groove cutter

20	10	0
E20-H	E20-L	Clamex S-20
K20	C20	C10

With 8 mm Lamello System groove cutter
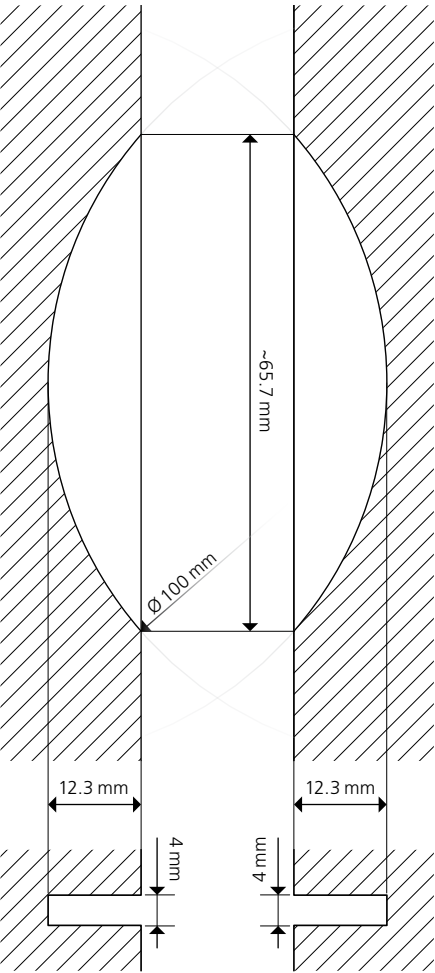
Clamex S-18

With 3 mm Lamello System groove cutter

H9

Lamello depth adjustment system

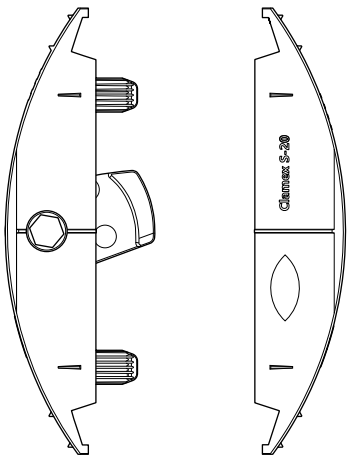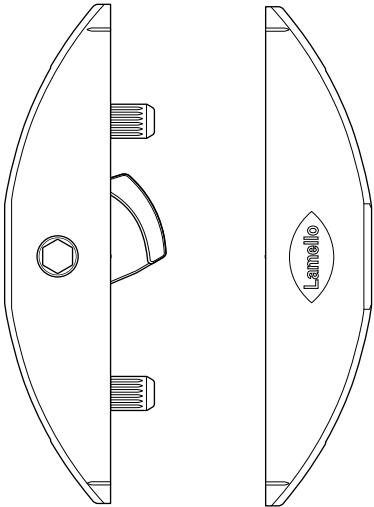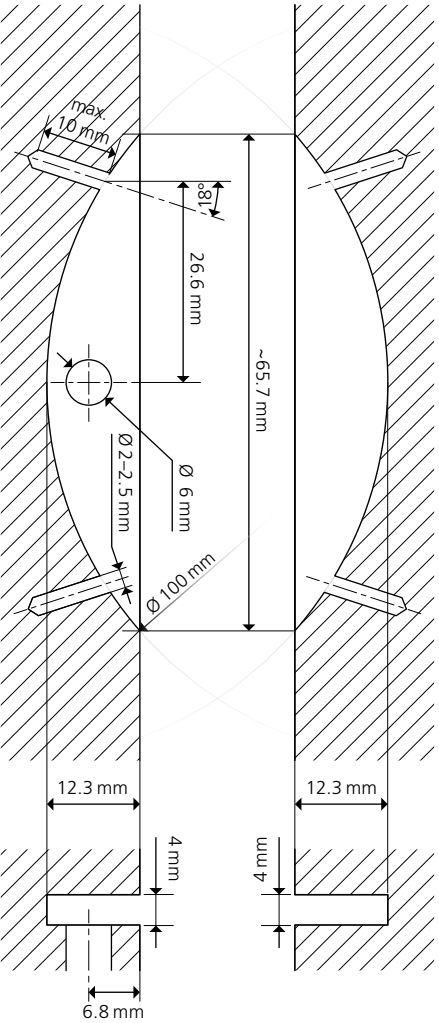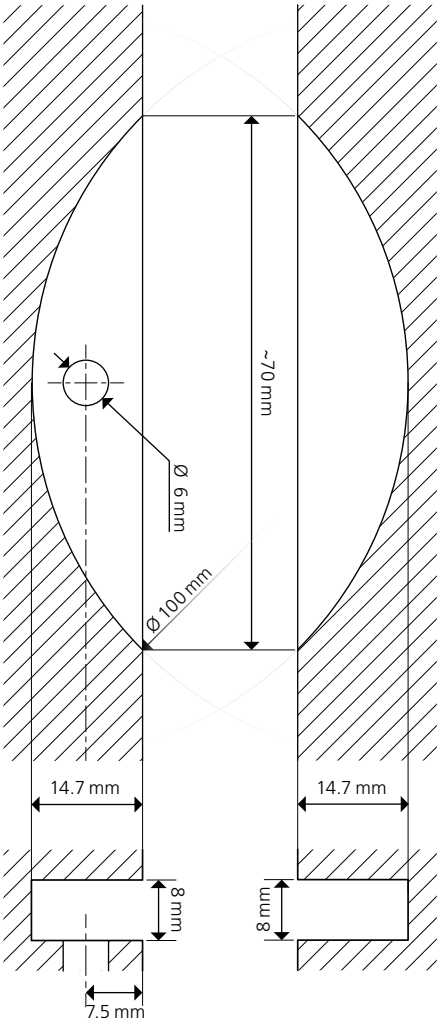| 0	**Depth 0** no. 0
10	**Depth 10** no. 10, C10
20	**Depth 20** no. 20, E20-L, K20, C20, Clamex S-20
S	**Depth S** E20-H
D	**Depth D** Clamex S-18, E20-L
max	**Depth max** H9 (incl. spacer), E20-L

Technical information

Overview of connectors + grooves (scale 1:1)

Original wood biscuit 20	Original wood biscuit 10	Original wood biscuit 0

Original wood biscuit H9	C20	C10

Original wood biscuit 20

~65.7 mm

Ø 100 mm

12.3 mm 12.3 mm

4 mm 4 mm

Tensile strength (N)

Depending on the adhesive

Original wood biscuit 10

~60 mm

Ø 100 mm

10 mm 10 mm

4 mm 4 mm

Depending on the adhesive

Original wood biscuit 0

~54 mm

Ø 100 mm

8 mm 8 mm

4 mm 4 mm

Depending on the adhesive

Original wood biscuit H9

~46 mm

Ø 78 mm

7 mm 7 mm

3 mm 3 mm

Tensile strength (N)

Depending on the adhesive

C20

~65.7 mm

Ø 100 mm

12.3 mm 12.3 mm

4 mm 4 mm

Tensile strength (N)

Depending on the adhesive

C10

~60 mm

Ø 100 mm

10 mm 10 mm

4 mm 4 mm

Depending on the adhesive

Technical information

Overview of connectors + grooves (scale 1:1)

Clamex S-20	Clamex S-18

Tensile strength (N)	Up to
MDF	680[1]
Particle board	490[1]
Beech	620[1]

Tensile strength (N)	Up to
MDF	790[1]
Particle board	550[1]
Beech	1420[1]

K20	E20-H	E20-L

Tensile strength (N)	**Tensile strength (N)**	
Depending on the adhesive	Depending on the adhesive	Depending on the adhesive

Drilling System

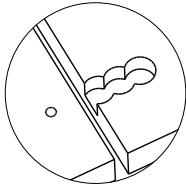Unique drilling systems for high productive and aesthetic demands

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

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

Detachable   **Cabineo**

Detachable   **Invis Mx2**

CNC processing centres with **consoles**

CNC processing centres with **nesting technology**

CNC processing centres **vertical**

Cordless drill

Rasto

Drilling System

Applications

Furniture manufacturing

Invis Mx2

Invis Mx2

Cabineo 8

Interior fitting

Cabineo X

Cabineo 12

Cabineo 8 M6

Invis Mx2

Drilling System

Applications

Kitchen manufacturing

Cabineo 8 black

Cabineo 8

Commercial joinery

Cabineo 8 M6

Cabineo 8 M6

Cabineo 12

Invis Mx2

Shop fitting

Cabineo 12

Time-saving cabinet connector
for corner joints from 13 mm

Features

Fast assembly | **High clamping force** | **No edge drilling**

– Carcase connectors for time savings throughout the entire production chain
– For every CNC machine thanks to simple machining on the surface
– Perfectly tensioned joints due to the high clamping force
– Elimination of dowel drilling and installation leads to time savings
– Ideal for time-saving, stable carcasses and cabinets

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.
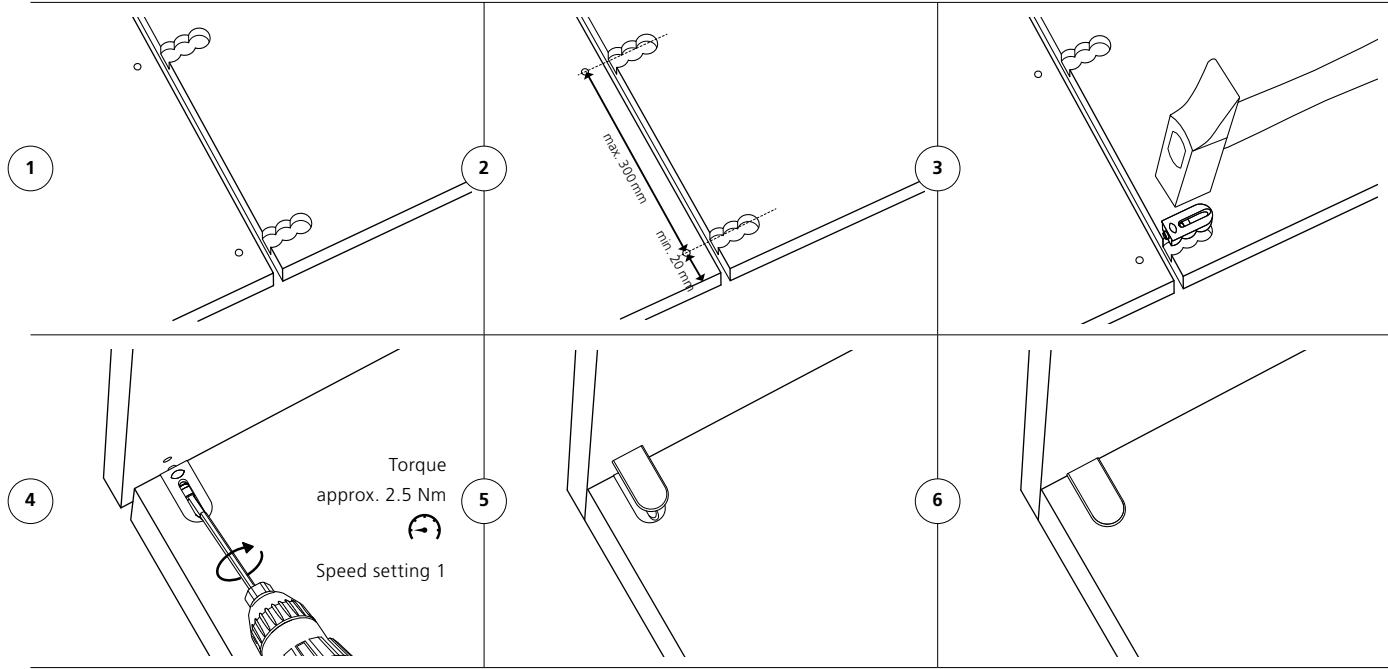
Articles

	Art. No.
Cabineo 12, 500 pieces	**186320**
Cabineo 12, 2000 pieces	**186321**
Cabineo 12 black, 500 pieces	**186330**
Cabineo 12 black, 2000 pieces	**186331**

Cabineo 8/12 Starterset   **186305**
Scope of delivery: 40 × Cabineo 8, 40 × Cabineo 12, 40 × Cabineo cover caps, RAL 9003 signal white, Cabineo hexagon bit

Matching accessories starting on PAGE 170

Installation

Technical data

Joining methods

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 tolerace	Long. ± 0.1 mm
Strength per connector without dowel (N)	

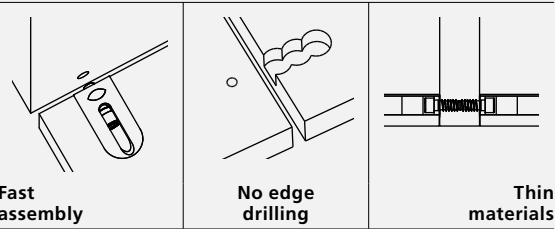| Particle board 19 mm Up to	Tensile strength (N)	Shear strength (N)
	820[1]	880[1]
	10 N ~ 1 kg	
Material range	Particle board, MDF, plywood, softwood, hardwood etc.	

See **PAGE 148 – 149** for technical specifications | [1] See comment on load limits on **PAGE 185**

Cabineo 8

Time-saving cabinet connector
for centre panels from 16 mm

Features

Fast assembly | **No edge drilling** | **Thin materials**

– Carcase connectors for time savings throughout the entire production chain
– For material thicknesses from 12 mm and center panels from 16 mm
– For every CNC machine thanks to simple machining on the surface
– Elimination of dowel drilling and installation leads to time savings
– Ideal for time-saving, stable carcasses and cabinets

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. Cabineo is available in white or black.
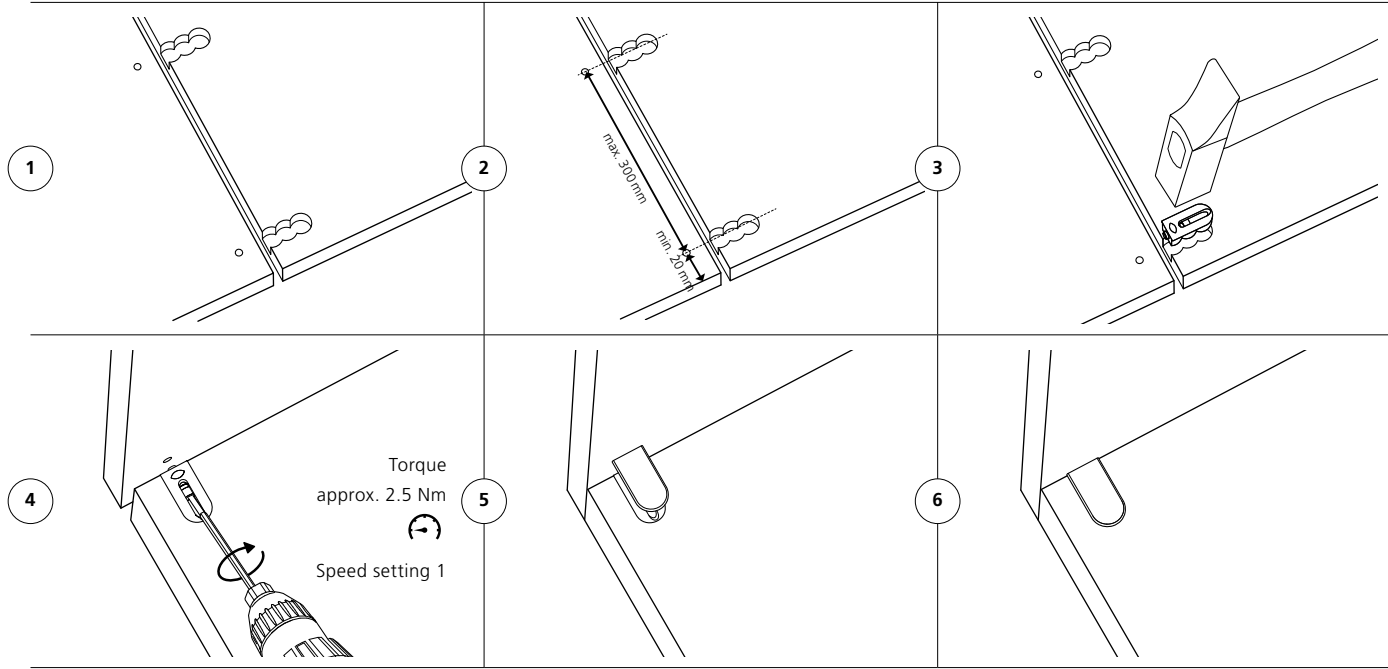
Articles

	Art. No.
Cabineo 8, 500 pieces	**186310**
Cabineo 8, 2000 pieces	**186311**
Cabineo 8 black, 500 pieces	**186340**
Cabineo 8 black, 2000 pieces	**186341**

Cabineo 8/12 Starterset   **186305**
Scope of delivery: 40 × Cabineo 8, 40 × Cabineo 12, 40 × Cabineo cover caps, RAL 9003 signal white, Cabineo hexagon bit

Matching accessories starting on PAGE 170

Installation

Torque approx. 2.5 Nm

Speed setting 1

Technical data

Joining methods

≥ 9 mm   ≥ 16 mm

≥ 12 mm   ≥ 12 mm

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 tolerace	Long. ± 0.1 mm	
Strength per connector without dowel (N)		
Particle board 19 mm Up to	Tensile strength (N)	Shear strength (N)
	520[1]	530[1]
	10 N ~ 1 kg	
Material range	Particle board, MDF, plywood, softwood, hardwood etc.	

Cabineo 8 M6

Wear-resistant cabinet connector for various materials and increased strength

Features

| Fast assembly | Wear-free connection | Various materials |

- Time-saving carcass connector with metric screw
- For joining different materials and increased strength
- For every CNC machine thanks to simple machining on the surface
- Elimination of dowel drilling and installation leads to time savings
- Ideal for multiple furniture assemblies without wear and tear

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.
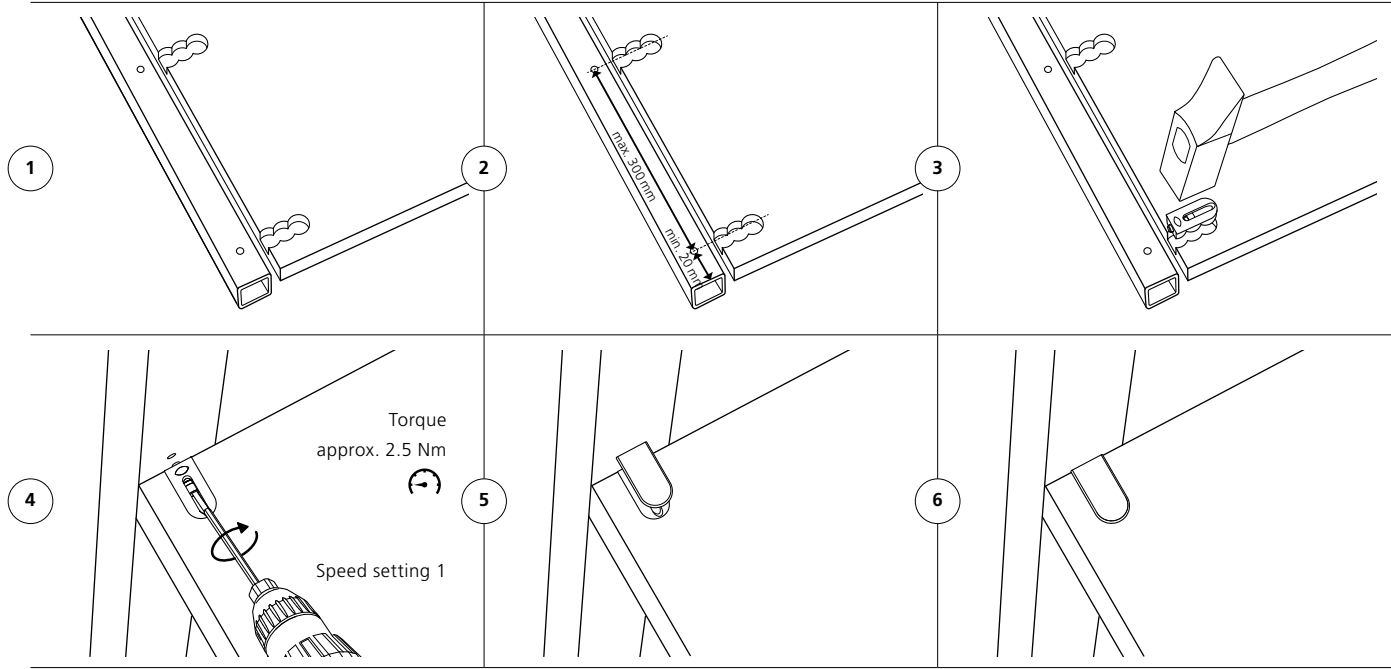
Articles

	Art. No.
Cabineo 8 M6, 500 pieces	**186315**
Cabineo 8 M6, 500 pieces	**186316**
Cabineo 8 M6 black, 500 pieces	**186345**
Cabineo 8 M6 black, 2000 pieces	**186346**

Cabineo 8 M6 Starterset **186306**
Scope of delivery: 80 × Cabineo 8 M6, 40 × Cabineo insert 12.3 mm, 40 × Cabineo insert 15.3 mm, 40 × cover caps, RAL 9003 signal white, Cabineo hexagonal bit, Cabineo insertion tool
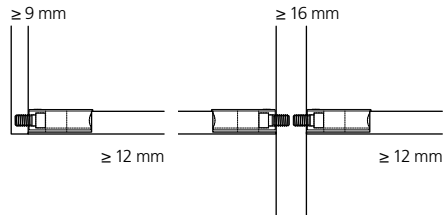
Matching accessories starting on PAGE 170

Installation

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 tolerace	Long. ± 0.1 mm	
Strength per connector without dowel (N)		
In HPL 12 mm Up to	Tensile strength (N)	Shear strength (N)
	2370[1]	1350[1]
	10 N ~ 1 kg	
Material range	Particle board, MDF, plywood, softwood, hardwood etc.	

Cabineo insert M6

For repeated assembly and disassembly without loss of strength

Features

Wear-free connection | **Anchoring on both sides** | **High load**

– Threaded socket in two sizes for Cabineo M6 screws
– Screwing in from both sides for center wall connections increases strength
– Efficient installation by hammering in
– High tensile strength in the wood due to the clawed retaining grooves
– Ideal for exhibition stand construction or the multiple assembly of furniture without wear and tear

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.
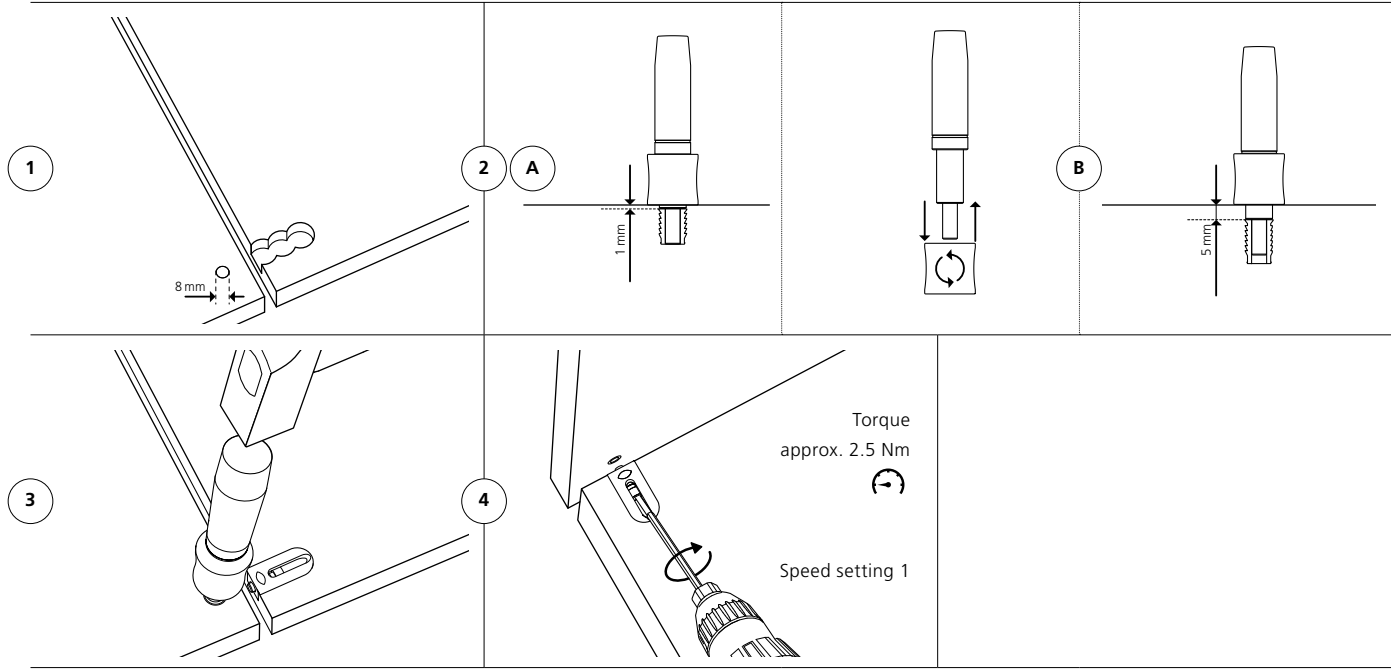
Articles

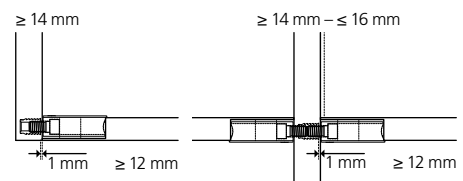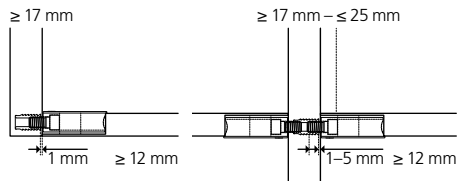|	Art. No.
Cabineo insert M6 × 12.3 mm, 100 pieces, incl. Cabineo insertion tool	**186370**
Cabineo insert M6 × 12.3 mm, 500 pieces, incl. Cabineo insertion tool	**186371**
Cabineo insert M6 × 15.3 mm, 100 pieces, incl. Cabineo insertion tool	**186375**
Cabineo insert M6 × 15.3 mm, 500 pieces, incl. Cabineo insertion tool	**186376**
Cabineo installation tool for insert M6	**276310**

Matching accessories starting on PAGE 170

Installation

Technical data

Joining methods

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

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

Size	Ø 9.3 × 12.3/15.3 mm	
Thread	M6	
Drill hole	Ø 8 mm	
Material	Brass	
Installation tolerace	Long. ± 0.1 mm	
Strength per connector without dowel (N)		
Particle board 19 mm Up to	Tensile strength (N)	Shear strength (N)
Insert M6 × 12.3	810[1]	1210[1]
Insert M6 × 15.3	940[1]	1240[1]
	10 N ~ 1 kg	
Material range	Particle board, MDF, plywood, softwood, hardwood etc.	

Cabineo X

Cabinet connector and shelf support without edge drilling

Features

No edge drilling | **Locked shelf** | **Multifunctional housing**

– Time-saving carcass connector with open housing
– Can be used with Cabineo X screws or shelf supports
– Flexible and simple positioning of the cabinet cover and shelves
– For every CNC machine thanks to simple machining on the surface
– Ideal for shelves, built-in cupboards, access panels and adjustable shelves

Cabineo X is a connector for cabinets and shelves, that can be used with all CNC machines and is pressed into place in the workshop or on site. Due to the open housing, it is possible to insert a Cabineo screw from the top and screw it into the counterpart with a hexagon bit. Using it with screws, Cabineo X is ideal when installing shelves into already joined cabinets or when assembling corner joints. Combined with shelf supports, Cabineo X prevents shelves from being pulled out.
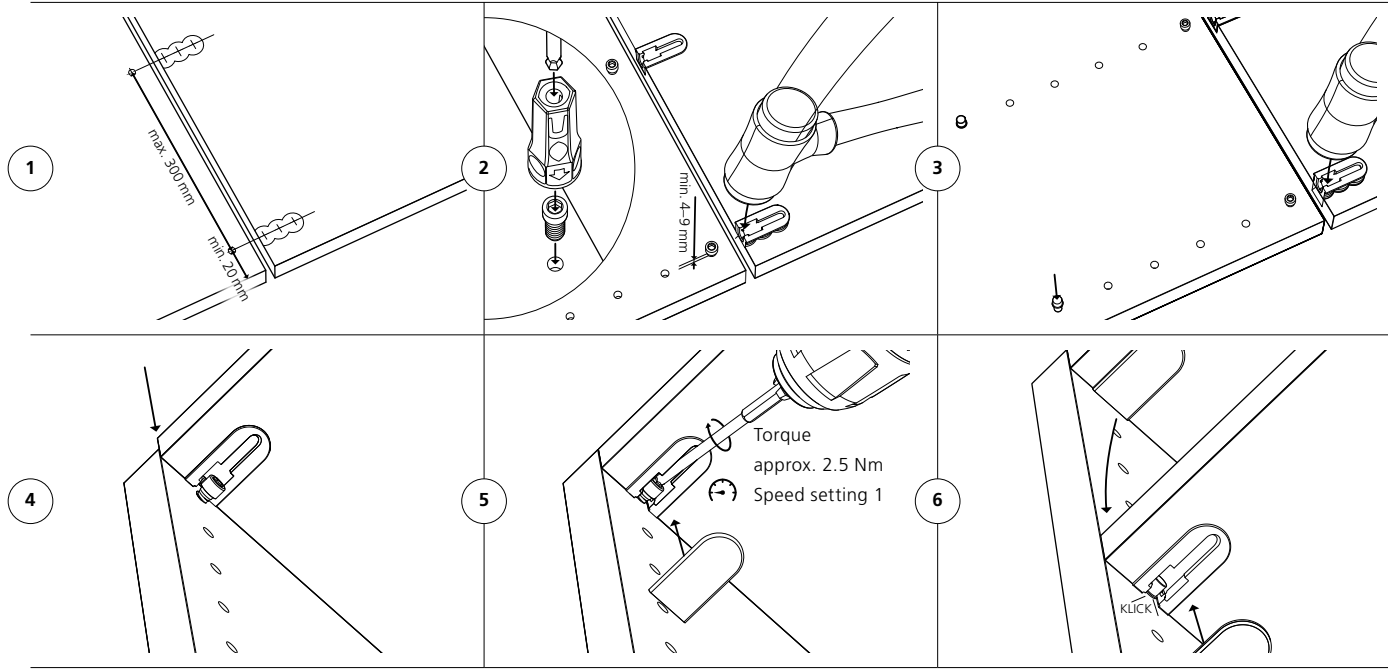
Articles

	Art. No.
Cabineo X, 500 pieces	**186360**
Cabineo X, 2000 pieces	**186361**
Cabineo X black, 500 pieces	**186365**
Cabineo X black, 2000 pieces	**186366**

Cabineo 12 screw, 500 pieces	**186380**
Cabineo 12 screw, 2000 pieces	**186381**
Cabineo 8 screw, 500 pieces	**186382**
Cabineo 8 M6 screw, 500 pieces	**186384**

Cabineo X shelf support Ø 5, 500 pieces	**186386**
Cabineo X shelf support Ø 3, 500 pieces	**186388**

Cabineo X Starter Set **186307**
Scope of delivery: 80 pieces Cabineo X, 40 pieces Cabineo 12 screw, 20 pieces Cabineo 8 screw, 20 pieces Cabineo 8 M6 screw, 20 pieces Cabineo X shelf support Ø 5, 20 pieces Cabineo X shelf support Ø 3, 40 pieces Cabineo cover caps signal white, 1 piece Cabineo X screw-in aid, 1 piece Cabineo hexagonal bit 1/4" GL 80 mm

Installation

Technical data

Joining methods

Cabineo 8 screw

Cabineo 12 screw

Size	33.8 × 16.5 × 10.8 mm	
Screw length	8 mm or 12 mm	
Shelf support	Ø 3 mm or Ø 5 mm	
Cutter	Ø 12 mm or smaller	
Drill	Ø 5 mm and Ø 15 mm	
Material housing	Fiberglass reinforced plastic	
Installation tolerace	Long. ± 0.5 mm	
Strength per connector without dowel (N)		
Particle board 19 mm Up to	Tensile strength (N)	Shear strength (N)
Cabineo 8 screw	480[1]	530[1]
Cabineo 12 screw	770[1]	850[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.	

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

4 surface processing steps
1 tool change

Fit Cabineo into top or bottom shelf

3 surface processing steps
2 tool changes

2 edge drill holes
1 tool change

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

Flat pack the workpieces

Prepare fitting bag

Flat pack the workpieces

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

Assemble using a cordless drill

Insert cam into shelf

Install the screw in the side
Insert dowel into the side

Assemble using a screwdriver

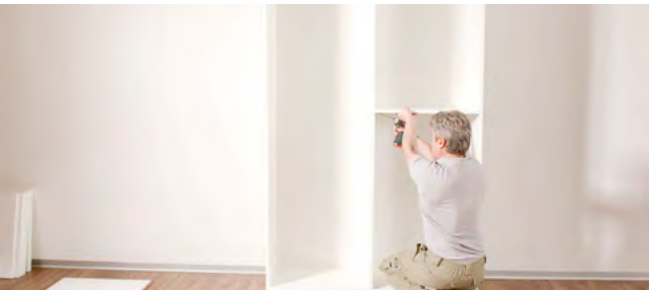# Examples of manufacturing and assembly processes

Cabineo

Flatpack workpiece delivery with pre-assembled connector.

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

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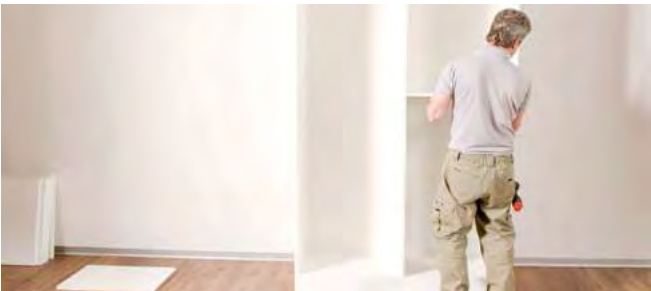

Tip:
– Place one side of the shelf on the shelf support and fasten the other side
– Retract the screw to facilitate installation.

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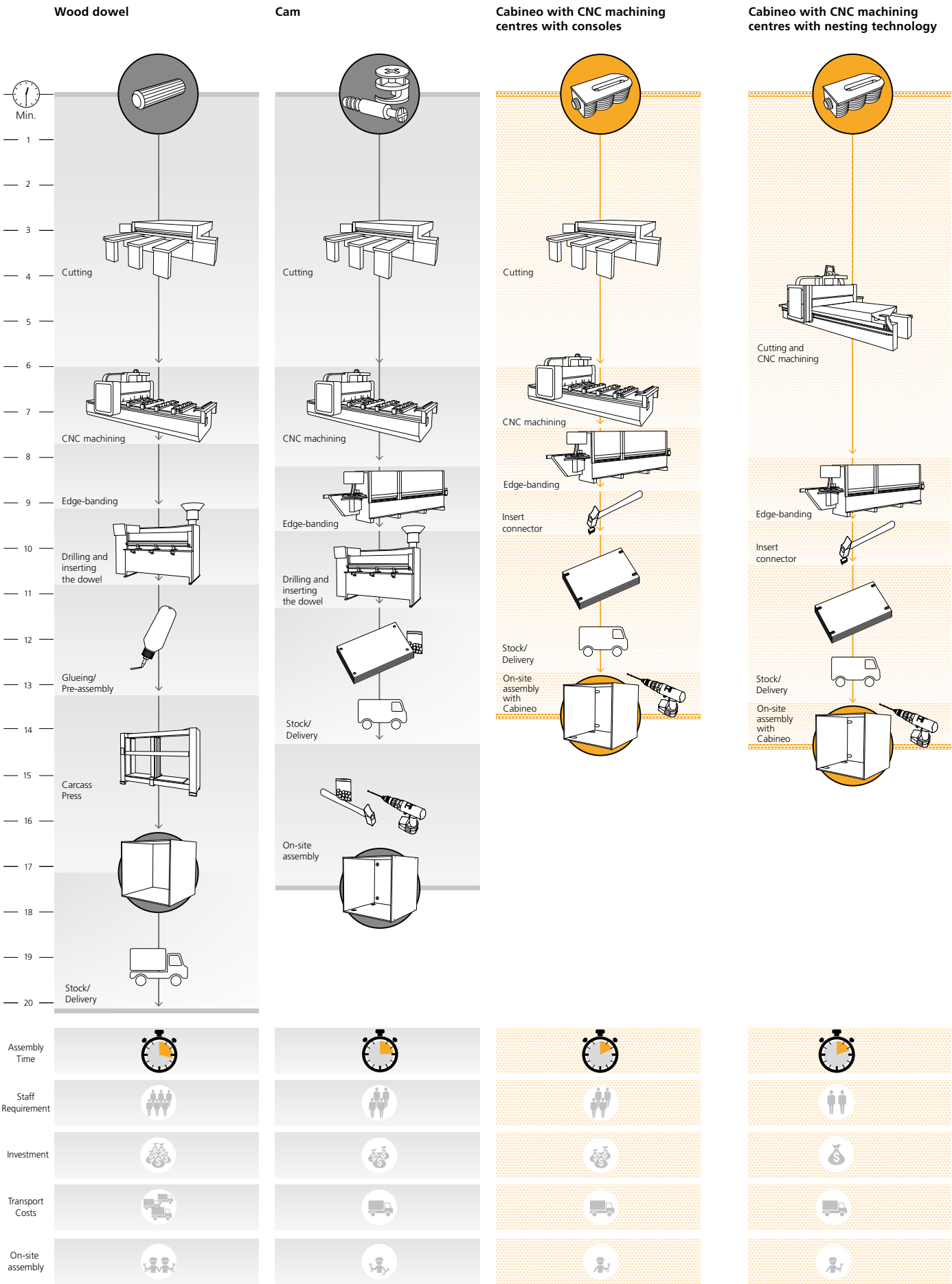

Position top and push towards the furniture side.

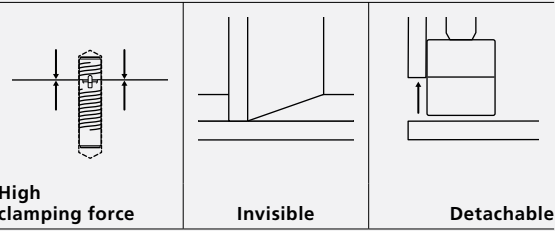After assembly, fasten the fixed intermediate shelves in the required positions.

If required, use cover caps on the Cabineo.

Wood dowel | Cam | Cabineo with CNC machining centres with consoles | Cabineo with CNC machining centres with nesting technology

Min.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Wood dowel: Cutting / CNC machining / Edge-banding / Drilling and inserting the dowel / Glueing/Pre-assembly / Carcass Press / Stock/Delivery

Cam: Cutting / CNC machining / Edge-banding / Drilling and inserting the dowel / Stock/Delivery / On-site assembly

Cabineo with CNC machining centres with consoles: Cutting / CNC machining / Edge-banding / Insert connector / Stock/Delivery / On-site assembly with Cabineo

Cabineo with CNC machining centres with nesting technology: Cutting and CNC machining / Edge-banding / Insert connector / Stock/Delivery / On-site assembly with Cabineo

Assembly Time
Staff Requirement
Investment
Transport Costs
On-site assembly

Invis Mx2

Magnet-driven connecting fittings

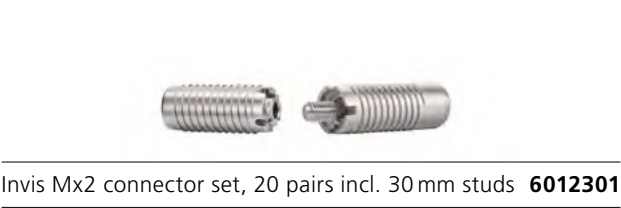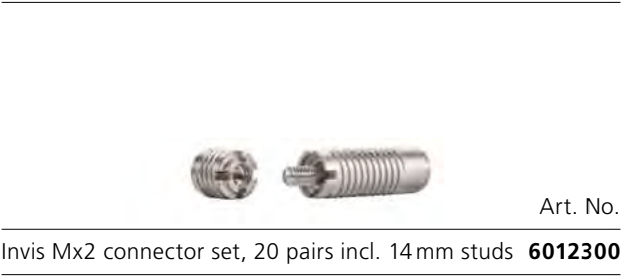## Features

High clamping force | **Invisible** | **Detachable**

- Magnetically driven, detachable furniture connector
- Enormously high clamping force of up to 250 kg per connector
- Invisible connection for maximum aesthetics
- Wear-free detachable with MiniMag Mx2 and cordless screwdriver
- Ideal for high-quality furniture, lacquered or molded workpieces, tables, stairs

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

Art. No.

Invis Mx2 connector set, 20 pairs incl. 14 mm studs **6012300**

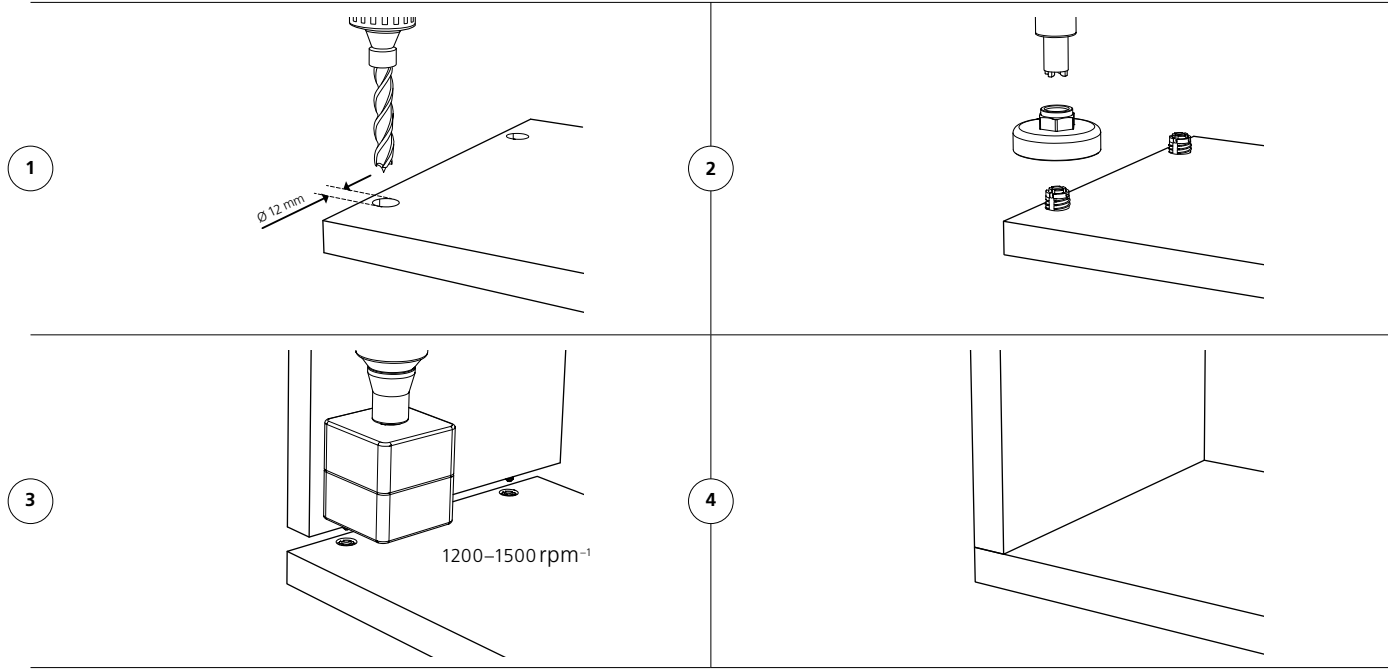Invis Mx2 connector set, 20 pairs incl. 30 mm studs **6012301**

Invis Mx2 Starter Set, in systainer **6100302**
Kit contains: 20 × Invis Mx2 with stud 14 mm, Invis Mx2 screw bit, Invis Mx2 insertion jig, MiniMag Mx2 inkl. flexible shaft, Rasto perforated plate, positioning bolts, fastening screw, Rasto drill bushings Ø 12 mm drill Ø 12 mm, depth adjuster, spacer

Matching accessories starting on PAGE 170

Installation

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^{-1}		
Material housing	Zinc		
Installation tolerace	Long. ± 0.1 mm		
Clamping force per connector	250 kg[1]		
Tensile strength (N) Up to	Connector sets with stud	14 mm	30 mm
	MDF	1460[1]	2260[1]
	Particle board	1220[1]	1580[1]
	Beech	3280[1]	5130[1]
Material range	Particle board, MDF, plywood, softwood, hardwood etc.		

142

143

Articles

	Art. No.
Invis Mx2 connector 35 mm, 20 pieces	**6012317**

Invis Mx2 stud 14 mm, 20 pieces	**6012312**

Invis Mx2 stud 30 mm, 20 pieces	**6012309**

Invis Mx2 centre wall stud, 10 pieces	**6012208**

Invis Mx2 MiniMag, incl. screw bit	**6100301**

Matching accessories starting on PAGE 170

Function

1

2

250 kg
Clamping force

9 mm   15 mm

Small distance from the edge for high clamping force

Rasto drill jig

Universal drill jig without measuring or marking

Features

Drill without marking | **For all workpiece shapes** | **32 mm hole rows**

– Precise drilling jig for timber joints with
  Invis Mx2 connecting fittings
– Transfer drilling position from workpiece
  to workpiece instead of marking it
– With three positioning pins for clamping
  on almost all workpiece shapes
– Drill bushes with different diameters for
  many applications
– Ideal for Invis Mx2 connectors, furniture
  handles, pot hinge cross plates, 32 mm
  rows of holes

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 work-
piece. 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
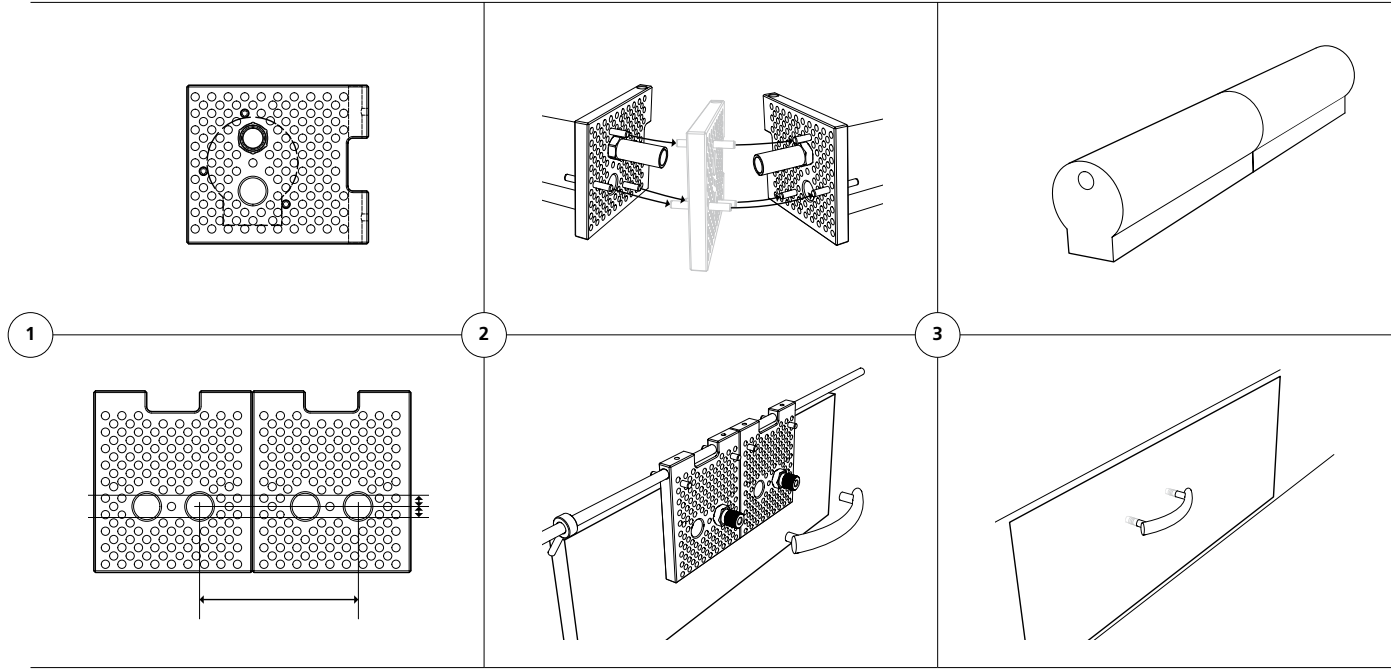for handles or for row hole drilling.

Articles

Art. No.

Rasto Duo Set, in systainer incl. accessories **126007**
Kit contains: 2 × Rasto perforated plate, 8 × Rasto drill
bushings Ø 5, Ø 8, Ø 10, Ø 12 mm, 3 × drills Ø 5, Ø 8,
Ø 12 mm, with depth adjuster, 6 × Rasto positioning pins,
2 × Rasto fastening screw, Rasto connection rod 500 mm
two-part, Invis Mx2 insertion bush, Invis Mx2 spacer
Ø 12 mm

Rasto Basic Set, in carton incl. accessories **126005**
Scope of delivery: Rasto perforated plate,
positioning pins, screw, 4 × Rasto drill bushings
Ø 5, Ø 8, Ø 10, Ø 12 mm

Rasto Mono Set, in systainer incl. accessories **126006**
Kit contains: Rasto perforated plate, 4 × Rasto drill
bushings Ø 5, Ø 8, Ø 10, Ø 12 mm, 3 × wood drill bits Ø 5,
Ø 8, Ø 12 mm, with depth adjuster, 3 × Rasto positioning
pins, 2 × Rasto fastening screw, Invis Mx2 insertion bush,
Invis Mx2 spacer Ø 12 mm

Installation

Technical data

Rasto perforated plate

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

On the surface / Flush with the surface:
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 X shelf support Ø 5: X = 8 mm / Y = 5 mm
Cabineo X shelf support Ø 3: X = 8 mm / Y = 3 mm

Flush cover cap:
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 X shelf support Ø 5: X = 8 mm / Y = 5 mm
Cabineo X shelf support Ø 3: X = 8 mm / Y = 3 mm

HPL on the surface:
Cabineo 8 M6*: X = 8 mm, yellow galvanised screw
* Metric ISO thread DIN 13-1

Drill 15 mm

On the surface: 3.6 mm / 11.2 mm / 11.2 mm / Ø 15 mm (3x)
Flush with the surface: 3.6 mm / 11.2 mm / 11.2 mm / 16.7 mm / Ø 15 mm (3x)
Flush cover cap: 0.25 mm / 3.6 mm / 11.2 mm / 11.2 mm / 9.4 mm / 18.8 mm / Ø 15 mm (3x)
HPL on the surface: 3.5 mm / 11.2 mm / 11.2 mm / Ø 15.2 mm (3x)

Cutter Ø 10 mm

On the surface: 26 mm / 14.8 mm / 3.6 mm / 5 mm / 6.6 mm / 9.2 mm / 20.4 mm / Ø 15 mm (3x)
Flush with the surface: 26 mm / 14.8 mm / 3.6 mm / 16.7 mm / 5 mm / 6.6 mm / 9.2 mm / 20.4 mm / Ø 15 mm (3x)
Flush cover cap: 26 mm / 14.8 mm / 3.6 mm / 18.8 mm / 5 mm / 6.6 mm / 9.2 mm / 20.4 mm / 26.25 mm / 9.4 mm / Ø 15 mm (3x)
HPL on the surface: 25.9 mm / 14.7 mm / 3.5 mm / 5.2 mm / 6.6 mm / 9.1 mm / 20.3 mm / Ø 15.2 mm (3x)

Cutter Ø 12 mm

On the surface: 26 mm / 14.8 mm / 3.6 mm / 6 mm / 6.6 mm / 12 mm / 8.1 mm / 2.2 mm / 19.3 mm / 2.2 mm / Ø 15 mm (3x)
Flush with the surface: 26 mm / 14.8 mm / 3.6 mm / 16.7 mm / 6 mm / 6.6 mm / 12 mm / 8.1 mm / 2.2 mm / 19.3 mm / 2.2 mm / Ø 15 mm (3x)

Machining Cabineo Insert

	X	Y = Ø
	[mm]	[mm]
Cabineo 8 M6*	8	5
Cabineo insert M6 × 12.3	13.5	8
Cabineo 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

max. 15 mm
min. 9 mm

MiniMag

37 mm

Ø 12 mm

32 mm

max. 15 mm
min. 9 mm

MiniMag

37 mm

Ø 12 mm

14 mm

37 mm

B max. 30 mm

44 mm - B

min. 14 mm

MiniMag

max. 15 mm
min. 9 mm

Ø 12 mm

Strong partnerships

For efficient production with CNC technology

CAD/ERP/CAM software

2020 | BORM | CAD.T CONSULTING CORPUS | work | DDX | HEXAGON ALPHACAM

HEXAGON CABINET VISION | iFurn | imos | KCD Software | Lignocam | Microvellum | Mozaik A Cyncly Company

NC-HOPS | OSD | PaletteCAD perfect experts | Pegasus | | PYTHA | RSO Group

rwdm.ch | SmartCABINET | SmartWOP | SPAZIO 3D | Swiss all CAD | swood | tapio

tPa | TopSolid | TrunCAD | interiorcad | woodLab STUDIO | Xcad

CNC machines/Aggregates/CNC tools

AES | ATEMAG | BENZ TOOLING | Biesse | COMEVA | FORMAT | GANNOmat

GROTEFELD | HÄRNNETT | HOLZHER | Holzfraese GERBORA | HOMAG | HSD MECHATRONIC DIVISION | INFOTEC CNC

IMA SCHELLING GROUP | KOMO | leitz | LEUCO | maggi TECHNOLOGY | masterwood | OERTLI

OMAL | scm group | STEMA | UTENSIL TECNICA | Vitap

SEE OUR PARTNER NETWORK!

Networked production

– Extensive network of planning and processing partners
– Efficient integration of Lamello products into production
– Continuous productivity in planning, processing and installation

« *If you want to modernise as a carpentry company, there is no way around the Cabineo in my view.* »

Wolfgang Füreder, Managing Director of Holzvision Füreder, Austria

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	●			C	●		●	G	●	G
	Profile groove on the surface (close to the edge)	A¹	E	F	C	●		E	F	D	A / F
	Profile groove on the surface (centre of the surface)*	A¹	E	F	C	A	●	E	F	D	A / F
	Access drill hole 45°		●		C	●				●	
	Profile groove in the edge 45°	B¹			C	●				●	
	Access drill hole 22 – 108°				C	●					
	Profile groove in the edge 22 – 108°				C	●					

* The Divario P-18 can also be used as an alternative connecting element in the middle of the surface. (2 × 8 mm holes without profile groove)
¹ Without a C-axis, the angle unit cannot be rotated by 90°/180°. Alternatively, the workpiece could be rotated and work in two steps.

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

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

Detailed information on machining	Detailed information on machining		Possible setup of aggregates and tools	Comments
			Integrated CNC Z-axis with drill (5/6 mm) or with **collet chuck** for clamping Ø 10 mm and drill 131556	P-System CNC drill bit on **PAGE 166**
	*	*	**Saw blade clamp** Ø 40/DTK 52 mm and cutter 132143 or with **collet chuck** and cutter arbor	You can find dimensions for cutters and clamping Ø and lengths of cutter arbors on **PAGE 166/167**
Ⓐ max. 34 mm	*	*	**Angle aggregate** – 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: www.lamello.com under planning and machining partners
Ⓑ	*	*	**Manually adjustable swivelling aggregates** **Information:** Several tool changes required for angle cuts, drilling and P-System grooves	**Note:** The cutting depth in the centre of the surface may be restricted depending on the model. **Tip:** For a mitre, the drill hole could be made with the manual drill
Ⓒ max. 100.4 mm / max. 10 mm	*		**Automatically adjustable swivelling aggregates with automatic tool changer** (FLEX5+C/5-MOTION PLUS/Flex5+C, from year of manufacture 2015) – Tool holder WFC 40-25 clamping Ø 10 mm for drill – Drill shank Ø 10 mm, tool protrusion max. 50 mm – Tool holder WFC 40-25 with flange and cutter 132143	**Note:** In the centre of the surface, the profile groove depth is limited to 10 mm
Ⓓ Ⓔ			**Shrink chuck** for clamping Ø 12 × 40 mm and shank tool 131342 or **collet chuck** for clamping Ø 12 × 40 mm and shank tool 131342	P-System CNC shank tool cutter on **PAGE 167.**

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

Ⓖ Ⓕ

P-System equipment options

For CNC machines for particularly efficient machining

Vertical and horizontal CNC machining centres «CNC compact class»

EVOLUTION 7405 Connect°
❶ · ❷ · ❸

Brema Eko 2.1
1× aggregate
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸

Brema Eko 2.2
1× aggregate for 90°
1× aggregate 45° for 2× 45°
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸ · ❹

Project TF 100/TF 100 2.0
1× aggregate
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸

cx 220
1× aggregate
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸

DYNESTIC 7535
1× P-System tool set
❶ · ❷ · ❸ · ❹

Vitap K2 2.0
1× aggregate
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸

Creator 950
1× P-System CNC groove cutter in HSK63F
1× P-System CNC shank tool cutter* in HSK63F
1× drill Ø 6 mm

*optional for P-System CNC shank tool cutter:
1× aggregate for 90°
1× P-System CNC groove cutter
❶ · ❷ · ❸

ProTec + P-System add-on package
Editor with Lamello P-System macro
1× P-System CNC groove cutter in HSK63F
1× P-System CNC cutter arbor
1× P-System CNC shank tool cutter
1× drill Ø 6 mm
❶ · ❷ · ❸

DRILLTEQ V-200
woodWOP «Lamello P-System» component
1× P-System tool set
❶ · ❷ · ❸

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

additionally for 45° joints:
2× aggregate 45°
1× tool set for 45°
❶ · ❷ · ❸ · ❹

DRILLTEQ D-510
woodWOP «Lamello P-System» component
1× P-System tool set
❶ · ❷

cx 110
1× aggregate
2× P-System CNC groove cutters
1× P-System CNC cutter arbor
1× drill Ø 6 mm
❶ · ❷ · ❸

www.lamello.com Experience CNC live and receive comprehensive product information!

Connectivity

Surface 180°	Corner 90°	Centre wall 90°	Mitre 2× 45°
❶	❷	❸	❹

160

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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)	
	Art. No.
Clamex P-14 CNC element with lever, 2000 pieces	**145388**
Clamex P-14 element with lever, 2000 pieces	**145338**
Clamex P-14 Flexus element with lever, 2000 pieces	**145318**

Depth 10 mm for all P-System grooves in the surface	
	Art. No.
Clamex P-10 element without lever, 2000 pieces	**145358**
Clamex P-10 Medius element without lever, 2000 pieces	**145369**

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

	Art. No.
Zeta P2 positioning pin CNC, Ø 5 mm, 2 pieces	**251048**
Zeta P2 positioning pin CNC, Ø 8 mm, 2 pieces	**251066**

	Art. No.
Zeta P2 positioning clip CNC, for drill hole Ø 6 mm	**251067**

Machining steps

1. Drill the positioning holes with the CNC, Ø 5 mm/Ø 8 mm (axis spacing 101 mm)
2. Remove the anti-slip devices on the Zeta P2
3. Insert the positioning pins in the Zeta P2
4. Position the machine in the drill holes

1. Drill the positioning hole with the CNC, Ø 6 mm
2. Insert the positioning clip
3. Insert the positioning clip in the drill hole Ø 6 mm
4. Cut the groove with the positioned machine

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.

Generally possible with all CNC machines

www.lamello.com

Experience CNC live and receive comprehensive product information!

CNC tools - aggregate

Benz was the first company to develop a triple multi-spindle head in order to to drill the Cabineo with a single stroke. This reduces the machining time to approx. 1–2 seconds.

Supplier of triple drilling unit for Cabineo:

Benz MULTI V3 CABINEO
Vertical multi-spindle head (direction of rotation of the drills 1 piece left hand rotation, 2 pieces right hand rotation)

Atemag VERTINEO FUNCTION LINE
Drilling unit for Cabineo connector All-In-One. (Direction of rotation of the drills 2 pieces left hand rotation, 1 piece right hand rotation)

Grotefeld DPL-03-03-CABINEO
Multi-spindle drilling unit DPL (Direction of rotation of the drills, both options possible: 1 drill left hand rotation, 2 drills right hand rotation or 2 drills left hand rotation, 1 drill right hand rotation)

CNC tools

Leuco was the first company to develop the interlocking drills for the triple multi-spindle units.

Leuco drills for triple drilling units*
Solid carbide (VHW), special LEUCO cutting edge and pre-cutter geometry for minimum cutting force and cutting pressure.

Leitz drill bits for triple drilling units
Solid carbide, round pre-cutter geometry for very good drill edge quality, extremely wear-resistant carbide grade.

* Cabineo drills for aggregate see **PAGE 168**

CNC tools

For the P-System

P-System CNC tools

	Art. No.
Clamex CNC drill bit, HW (carbide), Ø 6 mm, shaft Ø 10 × 65 mm, L 100 mm	**131556**

	Art. No.
P-System groove cutter CNC, DP (diamond), Ø 100.4 × 7 × Ø 30 mm, Z3, NL 4 × Ø 6.6 × Ø 48 mm	**132142**
P-System groove cutter CNC, DP, left hand, Ø 100.4 × 7 × Ø 30 mm, Z3, NL 4 × Ø 6.6 × Ø 48 mm, for Weeke BHX 200, Homag DRILLTEQ V-500, DRILLTEQ V-310, ...	**132149**

	Art. No.
P-System groove cutter CNC, DP (diamond), Ø 100.4 × 7 × Ø 30 mm, Z6, NL 4 × Ø 6.6 × Ø 48 mm, for Lamello CNC milling arbor with 30 mm hub	**132145**

	Art. No.
P-System groove cutter CNC, DP (diamond), Ø 100.4 × 7 × Ø 40 mm, Z3, NL 4 × Ø 5.5 × Ø 52 mm, e.g. Benz FLEX5+C, Benz 5-MOTION PLUS, ...	**132143**

	Art. No.
P-System groove cutter CNC, DP (diamond), Ø 100.4 × 7 × Ø 16 mm, Z3, NL 4 × Ø 5.5 × Ø 28 mm, for corner notching unit, ...	**132144**

	Art. No.
P-System groove cutter CNC, DP (diamond), Ø 100.4 × 7 × Ø 35 m, Z3, NL 4 × Ø 5.5 × Ø 50 mm, for Brema Eko 2.1, Masterwood project TF 100, Format4 D-Jet, Morbidelli cx110 / cx220, ...	**132148**
P-System groove cutter CNC, DP, rotation left, Ø 100.4 × 7 × Ø 35 mm, Z3, NL 4 × Ø 5.5 × Ø 50 mm, for Format4 Nesting profit H08, ...	**132180**

	Art. No.
Cutter arbor CNC for P-System groove cutter, Ø 30 mm, S Ø 20 × 50 mm, L 102 mm, NL 4 × M4 × Ø 48 mm	**132150**
Cutter arbor CNC for P-System groove cutter, Ø 30 mm, S Ø 20 × 50 mm, L 102 mm, NL 4 × M4 × Ø 48 mm	**132151**
Cutter arbor CNC for P-System groove cutter, Ø 30 mm, S Ø 16 × 50 mm, L 85 mm, NL 4 × M4 × Ø 48 mm	**132152**
Cutter arbor CNC for P-System groove cutter, Ø 30 mm, S Ø 16 × 55 mm, L 68 mm, NL 4 × M4 × Ø 48 mm	**132153**
Cutter arbor CNC P-System cutter, clamping surf. 2, Ø 30 mm, S Ø 16 × 50 mm, L 85 mm, NL 4 × M4 × Ø 48 mm, for lock case unit	**132154**
Cutter arbor CNC P-System cutter, clamping surf. 2, Ø 30 mm, S Ø 20 × 50 mm, L 85 mm, NL 4 × M4 × Ø 48 mm, for lock case unit	**132155**
Countersunk screw, Torx, 4 pieces, M6 × 16 mm, T20, for CNC cutter arbor	**132159**
Screwdriver with cross-grip, Torx T20 × 100 mm, green	**271919**
Cutter arbor CNC for 4 mm Lamello groove cutter, Ø 22 mm, shaft Ø 16 × 36 mm, L 80 mm, NL 4 × M4 × Ø 36 mm	**132156**

	Art. No.
P-System shaft tool cutter, HW solid (carbide), Ø 7.05/9.8 mm, S Ø 12 × 40 mm, L 80 mm	**131342**

One tool with 2 functions

① » **P-System CNC shank tool cutter with 5-axis**

② » **P-System CNC shank tool cutter with 3-axis**

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

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

CNC tools

For Cabineo

Drilling System

Cabineo dril/cutter

	Art. No.
Cabineo drill, HW, Ø 15 mm	**136312**
Cabineo cutter DP, Ø 10 mm	**136310**
Cabineo cutter DP, Ø 12 mm	**136311**

Cabineo drills for triple aggregate*

Cabineo aggregate drill, HW, rotation right, Ø 15 mm, shank Ø 6/4.5 × 18 mm, L 57.5 mm	**136314**
Cabineo aggregate drill, HW, rotation left, Ø 15 mm, shank Ø 6/4.5 × 18 mm, L 57.5 mm	**136315**

* For triple drilling units: Benz MULTI V3 Cabineo,
   Atemag VERTINEO FUNCTION LINE, Grotefeld DPL-03-03-Cabineo, ...

« *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/
Spare Parts

P-System connector assortment

	Art. No.
P-System connector assortment professional, in sortainer Kit contains: 120 pairs Clamex P-14, 30 pairs Clamex P-14/10 Flexus, 30 pairs Clamex P-10, 30 pairs Tenso P-10, incl. preload clip, 120 pairs Tenso P-14, incl. preload clip, 80 pairs Divario P-18, 20 pieces Bisco P-14, 20 pieces Bisco P-10, incl. Divario installation tool/drill/marking gauge, Clamex P installation tool, Tenso P-14/10 preload tool	**145323**
P-System connector assortment basic, in Systainer³ M Kit contains: 80 pairs Clamex P-14, 80 pairs Tenso P-14, incl. preload clip, 30 pairs Clamex P-14/10 Medius, 30 pairs Clamex P-14/10 Flexus, 20 pairs Bisco P-14	**145321**

Starter kit

	Art. No.
Divario P-18 Starter kit, in Systainer³ M 137 Kit contains: 80 pairs Divario P-18, Divario installation tool, marking jig metal	**145552**

Lamello Systainer³

	Art. No.
Systainer³ M 187, with insert and 6 partitions	**331579E**
Systainer³ M 187	**331579**
Systainer³ M 187 Insert 2 partitions, incl. foam insert, RAL 7035 light grey	**360024**
Divider insert, light grey, 125 × 117 × 2 mm	**360019**
Systainer³ M 187 plastic insert, for Zeta P2, Top 21, Classic X	**360020**

Lamello sortainer

	Art. No.
Sortainer T-Loc IV/3, incl. dividers + boxes	**331581**

Accessories/
Spare Parts

Clamex P

Clamex cover cap 90°		Art. No.
Clamex cover cap, 100 pieces, RAL 9010 pure white	⚪	**335280**
Clamex cover cap, 100 pieces, RAL 9011 graphite black	⚫	**335281**
Clamex cover cap, 100 pieces, RAL 1014 ivory, pine	🟡	**335282**
Clamex cover cap, 100 pieces, RAL 1011 brown beige, beech	🟤	**335283**
Clamex cover cap, 100 pieces, RAL 8007 fawn brown	🟤	**335284**
Clamex cover cap, 100 pieces, RAL 8017 chocolate brown	🟤	**335289**
Clamex cover cap, 100 pieces, RAL 9002 grey white	⚪	**335285**
Clamex cover cap, 100 pieces, RAL 7035 light grey	⚪	**335286**
Clamex cover cap, 100 pieces, RAL 7040 window grey	🔵	**335287**
Clamex cover cap, 100 pieces, RAL 7031 blue grey	🔵	**335288**
Clamex cover cap, 100 pieces, RAL 7022 umbra grey	⚫	**335298**
Clamex cover cap, 500 pieces, RAL 9010 pure white	⚪	**335362**
Clamex cover cap, 500 pieces, RAL 9011 graphite black	⚫	**335363**
Clamex cover cap, 500 pieces, RAL 1014 ivory, pine	🟡	**335364**
Clamex cover cap, 500 pieces, RAL 1011, brown beige, beech	🟤	**335365**
Clamex cover cap, 5000 pieces, RAL 9010 pure white	⚪	**335296**
Clamex cover cap, 5000 pieces RAL 9011 graphite black	⚫	**335291**
Clamex cover cap, 5000 pieces, RAL 1014 ivory, pine	🟡	**335292**
Clamex cover cap, 5000 pieces, RAL 1011 brown beige, beech	🟤	**335293**
Clamex cover cap, 5000 pieces, RAL 8007 fawn brown	🟤	**335294**
Clamex cover cap, 5000 pieces, RAL 8017 chocoloate brown	🟤	**335299**
Clamex cover cap, 5000 pieces, RAL 9002 grey white	⚪	**335295**
Clamex cover cap, 5000 pieces, RAL 7040 window grey	🔵	**335297**

Clamex cover cap 45°		Art. No.
Clamex cover cap 45°, 100 pieces, RAL 9010 pure white	⚪	**335380**
Clamex cover cap 45°, 100 pieces, RAL 9011 graphite black	⚫	**335381**
Clamex cover cap 45°, 100 pieces, RAL 1014 ivory, pine	🟡	**335382**
Clamex cover cap 45°, 100 pieces, RAL 1011 brown beige, beech	🟤	**335383**
Clamex cover cap 45°, 100 pieces, RAL 8017 chocolate brown	🟤	**335384**
Clamex cover cap 45°, 100 pieces, RAL 7035 light grey	⚪	**335386**
Clamex cover cap 45°, 100 piece, RAL 7022 umbra grey	⚫	**335388**
Clamex cover cap 45°, 5000 pieces, RAL 9010 pure white	⚪	**335390**
Clamex cover caps 45°, 5000 pieces, RAL 1014 ivory, pine	🟡	**335392**
Clamex cover caps 45°, 5000 pieces, RAL 1011 Beech	🟤	**335393**

	Art. No.
Clamex installation tool, flexible, hexagon head key, L 290	**251993**

	Art. No.
Allen key, SW 4 mm, 75 × 55 mm	**271945**
Allen key, SW 4 mm, 120 × 50 mm	**271945A**

	Art. No.
Clamex P drill jig with drill Ø 6 mm	**125344**
Clamex P drill jig, angle with bushing, for Art. No. 125344	**255250**
Clamex P drill jig, element insert P-10, for Art. No. 125344	**255251**
Clamex P drill jig, element insert P-14, for Art. No. 125344	**255252**

	Art. No.
Clamex P drill jig long, incl. drill Ø 6 mm, for P-14 groove	**125345**

	Art. No.
Clamex wood drill, Ø 6 mm	**131506**
Wood drill with centre point for Ø 6 drilling jig, Length 150 mm	**131508EK**
Clamex depth collar, Ø 6 mm, incl. allen key	**255243**

Accessories/ Spare Parts

Clamex S-18/Clamex S-20

	Art. No.
Clamex S-18 drill jig, incl. drill Ø 6 mm	**125240**
Clamex S-18 Set, incl. drill jig, reversible blades Kit contains: 125240 Clamex S drill jig, 132108 reversible blades for Clamex S, HW (carbide)	**125250**
Clamex S-20 drill jig, incl. drill Ø 6 mm	**125253**
Clamex S-20 Drilling and alignment jig	**125254**
Torx-Bit 1/4" TX 10 L = 25	**121281**
Clamex wood drill, Ø 6 mm	**131506**
Clamex installation tool, flexible, hexagon head key, L 290	**251993**

Tenso P

Tenso P-14/10 insertion tool	**145400**
P-System depth adjuster cap 4 mm for P-8	**145439**

Divario P

	Art. No
Divario P-18 marking jig metal, incl. drill and rotating depth stop	**125510**
Divario P-18 marking jig plastic	**125511**
Divario P-18 installation tool	**125500**
Divario P-18 Starterset Scope of delivery: 80 pair Divario P-18, Divario installation tool, marking jig plastic	**145550S**

LC P-16

P-System depth adjuster cap 2 mm for P-16	**251068**
Clamex P drill jig, element insert P-16, suitable for Art. No. 125344 for LC P-16	**255255**
Zeta P2 positioning clip CNC, for drill hole Ø 6 mm	**251067**

Accessories/ Spare Parts

Cabineo

	Art. No.
Cabineo installation tool, with handle incl. hex bit 1/4"	**256300**
Cabineo hex bit 1/4" GL 120 mm	**276312**
Cabineo hex bit 1/4" GL 80 mm	**276308**
Cabineo hex bit 1/4" GL 80 mm, 100 pieces	**276309**
Cabineo drill, HW, Ø 15 mm	**136312**
Cabineo cutter DP, Ø 10 mm	**136310**
Cabineo cutter DP, Ø 12 mm	**136311**
Cabineo aggregate drill*, HW, rotation right, Ø 15 mm, shank Ø 6/4.5 × 18 mm, L 57.5 mm	**136314**
Cabineo aggregate drill*, HW, rotation left, Ø 15 mm, shank Ø 6/4.5 × 18 mm, L 57.5 mm	**136315**
Cabineo cover cap, 100 pieces, RAL 9003 signal white	**186350S**
Cabineo cover cap, 100 pieces, RAL 9010 pure white	**186350W**
Cabineo cover cap, 100 pieces, RAL 9018 papyrus white	**186350P**
Cabineo cover cap, 100 pieces,RAL 1015 light ivory	**186350H**
Cabineo cover cap, 100 pieces, RAL 1011 brown beige	**186350B**
Cabineo cover cap, 100 pieces, RAL 8007 fawn brown	**186350R**
Cabineo cover cap, 100 pieces, RAL 7040 window grey	**186350F**
Cabineo cover cap, 100 pieces, RAL 7005 mouse grey	**186350A**
Cabineo cover cap, 100 pieces, RAL 9005 jet black	**186350T**
Cabineo cover cap, 100 pieces, Metal look, silver	**186350C**
Cabineo cover cap, 100 pieces, Metal look, nickel	**186350N**
Cabineo cover cap, 100 pieces, Metal look, dark steel	**186350D**

	Art. No.
Cabineo cover cap, 2000 pieces, RAL 9003 signal white	**186351S**
Cabineo cover cap, 2000 pieces, RAL 9010 pure white	**186351W**
Cabineo cover cap, 2000 pieces, RAL 9018 papyrus white	**186351P**
Cabineo cover cap, 2000 pieces, RAL 1015 light ivor	**186351H**
Cabineo cover cap, 2000 pieces, RAL 1011 brown beige	**186351B**
Cabineo cover cap, 2000 pieces, RAL 8007 fawn brown	**186351R**
Cabineo cover cap, 2000 pieces, RAL 7040 window grey	**186351F**
Cabineo cover cap, 2000 pieces, RAL 7005 mouse grey	**186351A**
Cabineo cover cap, 2000 pieces, RAL 9005 jet black	**186351T**
Cabineo cover cap, 2000 pieces, Metal look, silver	**186351C**
Cabineo cover cap, 2000 pieces, Metal look, nickel	**186351N**
Cabineo cover cap, 2000 pieces, Metal look, dark steel	**186351D**
Cabineo installation tool for insert M6	**276310**

Cabineo X

	Art. No.
Cabineo 12 screw, 500 pieces	**186380**
Cabineo 12 screw, 2000 pieces	**186381**
Cabineo 8 screw, 500 pieces	**186382**
Cabineo 8 M6 screw, 500 pieces	**186384**
Cabineo X shelf support Ø 5, 500 pieces	**186386**
Cabineo X shelf support Ø 3, 500 pieces	**186388**
Cabineo X screw-in aid, suitable for Cabineo hexagon bit 1/4" GL 80 mm	**276313**

* For triple drilling units: Benz MULTI V3 Cabineo, Atemag VERTINEO FUNCTION LINE, Grotefeld DPL-03-03-Cabineo, ...

Accessories/
Spare Parts

Invis Mx2

	Art. No.
Invis Mx2 screw bit	**6112205**
Invis Mx2 MiniMag, incl. screw bit	**6100301**
Invis M2 MiniMag flexible shaft	**6100204**
Invis Mx2 insertion tool, for 14 mm stud	**6112333**
Invis Mx2 insertion bush for Rasto, for 14 mm stud	**6112330**

Rasto

	Art. No.
Rasto spiral drill for wood, Ø 5 mm	**6100160**
Rasto spiral drill for wood, Ø 6 mm	**6106161**
Rasto spiral drill for wood, Ø 8 mm	**6108060**
Rasto spiral drill for wood, Ø 10 mm	**6110162**
Rasto spiral drill for wood, Ø 12 mm	**6112060**
Rasto depth set collar, Ø 5 mm	**6100059**
Rasto depth set collar, Ø 6 mm	**6100063**
Rasto depth set collar, Ø 8 mm	**6100060**
Rasto depth set collar, Ø 10 mm	**6100064**
Rasto depth set collar, Ø 12 mm	**6100061**
Invis Mx2 spacer for Rasto	**6112331**
Rasto perforated plate	**6160000**
Rasto drill bush, Ø 5 mm	**6100065**
Rasto drill bush, Ø 6 mm	**6100056**
Rasto drill bush, Ø 8 mm	**6100057**
Rasto drill bush, Ø 10 mm	**6100067**
Rasto drill bush, Ø 12 mm	**6100058**
Rasto fixing screw, 4.5 × 35 mm, TX25	**6560450**
Rasto positioning pins, Ø 5 × 40 mm	**6160001**
Rasto connection rod, 500 mm, two-part	**6160601**

Accessories/
Spare Parts

Clamping Set components

	Art. No.
Clamping Set clamp, incl. 5 m belt	**175005**
Clamping Set clamp, incl. 8 m belt	**175008**
Clamping belt clamp, incl. belt 10 m	**175010**
Buckle for clamps, without belt	**175060**
Clamping Set belt, 50 m	**175050**
Polyester strap for clamps per meter, 28 mm	**335000**
Clamping Set tension hooks	**175200**
Clamping Set aluminium profiles, 4 pieces, L 12 cm	**175401**
Clamping Set aluminium profiles, 4 pieces, L 40 cm	**175402**
Clamping Set aluminium profiles, 4 pieces, L 60 cm	**175403**

Zeta P2, Classic X, Top 21

	Art. No.
Stop square, for Zeta P2, Top 21, Classic X	**251044**
Spacer 5 mm, aluminium, for Zeta P2, Top 21, Classic X	**253027**
Spacer 2 mm, plastic, for Zeta P2, Top 21, Classic X	**253023**
Spacer 4 mm, plastic, for Zeta P2, Top 21, Classic X	**253026**

Accessories/
Spare Parts

Zeta P2, Classic X, Top 21

	Art. No.
Groove cuttter, HW, Ø 100 × 4 × Ø 22 mm, Z2+V4, NL 4	**132000**
Groove cutter for biscuit joiners, HW, Ø 78 × 3 × Ø 22 mm, Z4, NL 4	**132009**
Saw blade for biscuit joiners, HW, Ø 100 × 2.4 × Ø 22 mm, Z20, NL 4, incl spacers	**132350**
Groove cutter with reversible blades, HW, Ø 100 × 4 × Ø 22 mm, Z4, NL 4	**132001**
Reversible blades set for 4 mm groove cutter, 4 pieces, suitable for item no. 132101/132001	**132111**
Countersunk screw, M4 × 8 mm	**352408T**
Allen key, SW4 mm, 144 × 29 mm	**271959L**
Groove cutter HW with reversible blades, Ø 100 × 4 × Ø 22 mm, Z4+V4, WS, NL 4, without hub Kit contains: Groove cutter, HW, Torx key T9, 4 × screws, spacer	**132130**
Main teeth for groove cutter with rev. blades 4 mm, 10 pieces, for Art. No. 132130	**132134**
Scoring teeth for groove cutter with rev. blades, 10 pieces, for Art. No. 132130	**132135**
Reversible blades set for 4 mm groove cutter, 4 pieces, suitable for item no. 132130	**132133**
Screw, for groove cutter with rev. blades Art. No. 132130	**352130**
Torx key, for groove cutter rev. blades Art. No. 132130, TX9	**352133**
Groove cutter with reversible blades, for biscuit joiner, HW, Ø 100 × 8 × Ø 22 mm, Z4+V4, NL 4, WS, for Clamex S-18	**132108**
Scoring teeth for groove cutter with rev. blades 8 mm, 10 pieces for Art. No. 132108	**132137**
Main teeth for groove cutter with rev. blades 8 mm, 10 pieces for Art. No. 132108	**132136**
Rerversible blades for 8 mm groove cutter, 4 pieces, suitable for item no. 132108	**132114**

	Art. No.
Spacer disk, Ø 40 × 1 × Ø 22 mm, NL 4	**322510**
Flange to saw blades, incl. screws, Ø 45 × 5.5 mm, M8, NL 4	**252502**

Classic X

	Art. No.
Groove cutter HW for Classic X, Ø 100 × 4 × Ø 22 mm, Z6 alternating teeth	**132106**

Zeta P2 cordless and Zeta P2

	Art. No.
Zeta P2, P-System groove cutter, DP (Diamond), Ø 100.4 × 7 × Ø 22 mm, Z3, NL 4	**132140**
Zeta P2, P-System groove cutter, HW, Ø 100.9 × 7 × Ø 22 mm, Z3, NL 4	**132141**

Combination CNC and Zeta P2

	Art. No.
Zeta P2 positioning pin CNC*, Ø 5 mm, 2 pieces	**251048**
Zeta P2 positioning pin CNC*, Ø 8 mm, 2 pieces	**251066**
Zeta P2 positioning clip CNC*, for drill hole Ø 6 mm	**251067**

* For detailed information, see **PAGE 158/163**

Accessories/ Spare Parts

Dust bag and accessories

	Art. No.
Dust bag, for Zeta P2, Top 21, Classic X	**257532**
Extractor stub 36 mm, for Zeta P2, Top 21, Classic X	**331007**
Deflector stub 90°, Ø 23 mm, for Zeta P2, Top 20/21, Classic X	**331005**

Battery

CAS

Battery pack 18V, LiHD 4.0 Ah, for Zeta P2 cordless, Classic X cordless	**313013**
Battery pack 18V, LiHD 5.5 Ah, for Zeta P2 cordless, Classic X cordless	**313015**
Battery charger ASC 55, plug type C Euro, for Zeta P2 cordless, Classic X cordless	**123100DE**
Battery charger ASC 55, plug type G, GB, for Zeta P2 cordless, Classic X cordless	**123100GB**

Disclaimer regarding load limits

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

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Machine overview

		Art. No.	Product page
Zeta P2 cordless biscuit joiner	DP, Set, in systainer, incl. batteries, charger type C Euro	101801DESD	P. 64
	DP, in systainer, without batteries without charger	101800DESD	P. 64
	DP, Set, in systainer, incl. batteries, charger type G	101801GBSD	P. 64
	DP, in systainer, without batteries without charger	101800GBSD	P. 64
Zeta P2 biscuit joiner	HW, plug type F Schuko, in Systainer³ M	101403DES	P. 66
	HW, plug type G, in Systainer³ M	101403GBS	P. 66
	DP, plug type F Schuko, in Systainer³ M	101403DESD	P. 66
	DP, plug type G, in Systainer³ M	101403GBSD	P. 66
Classic X cordless biscuit joiner	Set, in systainer, incl. batteries, charger type C Euro	101701DES	P. 106
	In systainer, without batteries without charger	101700DES	P. 106
	In carton, without batteries without charger	101700DEK	P. 106
	In systainer, incl. batteries, charger plug type G	101701GBS	P. 106
	In systainer, without batteries without charger	101700GBS	P. 106
	In carton, without batteries without charger	101700GBK	P. 106
Classic X biscuit joiner	Plug type F Schuko, in Systainer³ M	101602DES	P. 108
	Plug type F Schuko, in carton	101602DEK	P. 108
	Plug type G, in Systainer³ M	101602GBS	P. 108
	Plug type G, in carton	101602GBK	P. 108
Top 21 biscuit joiner	Plug type F Schuko, in Systainer³ M	101501DES	P. 110
	Plug type G, in Systainer³ M	101501GBS	P. 110
	Plug type F Schuko, in Systainer³ M with WS-cutter	101501DESW	P. 110

Systainer and sortainer

		Art. No.	Product page
P-System connector assortment professional	In sortainer Kit contains: 120 pairs Clamex P-14, 30 pairs Clamex P-14/10 Flexus, 30 pairs Clamex P-10, 30 pairs Tenso P-10, incl. preload clip, 120 pairs Tenso P-14, incl. preload clip, 80 pairs Divario P-18, 20 pieces Bisco P-14, 20 pieces Bisco P-10, incl. Divario installation tool/drill/marking gauge, Clamex P installation tool, Tenso P-14/10 preload tool	145323	P. 170
P-System connector assortment basic	In Systainer³ M Kit contains: 80 pairs Clamex P-14, 80 pairs Tenso P-14, incl. preload clip, 30 pairs Clamex P-14/10 Medius, 30 pairs Clamex P-14/10 Flexus, 20 pairs Bisco P-14	145321	P. 170
Divario P-18 Starter kit	In Systainer³ M Kit contains: 80 pairs Divario P-18, Divario installation tool, marking jig metal	145552	P. 52/170
Zeta P2 Set	DP, plug type F Schuko, in Systainer³ M incl. connector assortment	101403DESET	P. 68
	DP, plug type G, in Systainer³ M incl. connector assortment	101403GBSET	P. 68
	Scope of delivery 1st systainer 1 pce Zeta P2 biscuit joiner, Clamex P drill jig incl. drill, adapter 36 mm, spacer 2 and 4 mm, set of tools, stop square		
	Scope of delivery 2nd systainer: 1 pce Divario P-18 Starter Set in Systainer³ M Consisting of: 80 pairs Divario P-18, marking jig metal, installation tool, drill		
	Scope of delivery 3rd systainer: 1 pce P-System connector set in Systainer³ M Consisting of: 80 pairs Clamex P-14, 80 pairs Tenso P-14 incl. preload tool		
Systainer³ M 187	With insert and 6 partitions	331579E	P. 171
	Systainer³ M 187	331579	P. 171
	Insert 2 partitions, incl. foam insert, RAL 7035 light grey	360024	P. 171
	Divider insert, light grey, 125 × 117 × 2 mm	360019	P. 171
	Plastic insert, for Zeta P2, Top 21, Classic X	360020	P. 171
Sortainer	T-Loc IV/3, incl. dividers + boxes	331581	P. 171

Overview of connectors

P-System

			Quantity ⊖ Pairs ▽ Pieces	Art. No.	Minimum material strength (mm) 1	2	3	4	Depth adjustment	Product page	Product drawing 1:1
Clamex P Detachable	Clamex P-14		⊖ 80 300 1000	145334 145346 145356	≥ 12	≥ 15 ≥ 11	≥ 29		P14	P. 34	P. 74
	Clamex P-14 CNC element with lever		▽ 2000	145388				≥ 18	P14	P. 42	P. 75
	Clamex P-14/10 Medius		⊖ 80 300 1000	145370 145371 145357		≥ 16			P14/ P10	P. 36	P. 74
	Clamex P-10		⊖ 80 300 1000	145372 145373 145374			≥ 19	≥ 15	P10	P. 38	P. 74
	Clamex P-14/10 Flexus		⊖ 80 300 1000	145315 145316 145317			≥ 16	≥ 18	P14/ P10	P. 40	P. 75
Bisco P Detachable	Bisco P-14		▽ 80 300 1000	145301 145302 145303	≥ 12	≥ 15l (≥ 11[1])	≥ 21[1]	≥ 18	P14	P. 46	P. 76
	Bisco P-10		▽ 80 300	145304 145305		≥ 11 (≥ 9[1])	≥ 17[1]	≥ 15	P10	P. 46	P. 76
Tenso P Glueing	Tenso P-14		⊖ 80 300 1000	145415 145425 145435	≥ 12	≥ 15 (≥ 11[1])	≥ 19[1]	≥ 18	P14	P. 48	P. 77
	Tenso P-10		⊖ 80 300 1000	145418 145428 145438	≥ 12	≥ 11 (≥ 9[1])	≥ 16[1]	≥ 15	P10	P. 50	P. 77
Divario P Sliding insertion	Divario P-18		⊖ 80 300 1000	145550 145560 145570	≥ 12	≥ 11	≥ 18	–	P18/0	P. 52	P. 77
LC P-16	LC P-16 × 11		▽ 80 1000	145710 145711	≥ 16	≥ 12	≥ 19	–	P18[3]	P. 56 P. 56	P. 78 P. 78
	LC P-16 × 17		▽ 80 1000	145720 145721	≥ 16	≥ 12	≥ 19	–	P18[3]	P. 56 P. 56	P. 78 P. 78
	LC P-16 × 22		▽ 80 1000	145730 145731	≥ 16	≥ 12	≥ 19	–	P18[3]	P. 56 P. 56	P. 78 P. 78

Lamello System

		Quantity	Art. No.	1	2	3	4	Depth adjustment	Product page	Product drawing 1:1
Original wood biscuit Glueing	Original wood biscuit 20	▽ 1000	144020	≥ 6	≥ 13	≥ 26	≥ 12	20	P. 90	P. 114
	Original wood biscuit 10	▽ 1000	144010		≥ 11	≥ 21	≥ 10	10	P. 90	P. 114
	Original wood biscuit 0	▽ 1000	144000		≥ 9	≥ 17	≥ 9	0	P. 90	P. 114
	Original wood biscuit H9	▽ 1000	144009	≥ 5	≥ 8	≥ 15	≥ 8	max[2]	P. 90	P. 115
C20/10 Glueing	C20	▽ 250	145010	≥ 6	≥ 13	≥ 26	≥ 13	20	P. 100	P. 115
	C10	300	145012		≥ 11	≥ 21	≥ 10	10	P. 100	P. 115

Minimum material thicknesses depend on the materials used
[1] Displacer installation (more information regarding on **PAGE 49/51**)
[2] Additional use of the clip
[3] Additional use of the P-System depth adjuster cap 2 mm for P-16

			Quantity ⊖ Pairs ▽ Pieces	Art. No.	Minimum material strength (mm) 1	2	3	4	Depth adjustment	Product page	Product drawing 1:1
Clamex S Detachable	Clamex S-20		⊖ 20 80 300 1000	145243 145244 145245 145246	≥ 8	≥ 16	≥ 32	≥ 14	20	P. 94	P. 116
	Clamex S-18		⊖ 18 80 300 1000	145231 145236 145241 145251	≥12	≥ 16	≥ 36	≥ 18	D	P. 96	P. 116
E20 Inserted	E20-H		▽ 80 400 1200	145021 145026 145028	≥ 8	–	–	≥ 14	S	P. 92	P. 117
	E20-L		▽ 80 400 1200	145022 145025 145027	≥ 8	–	–	≥ 25	20 D max	P. 92	P. 117
K20 Inserted	K20		▽ 80 250	145001 145000	≥ 8	≥ 14	≥ 25	≥ 14	20	P. 98	P. 117

Drilling System

		Quantity	Art. No.	1	2	3	4	Depth adjustment	Product page	Product drawing 1:1
Cabineo Detachable	Cabineo 12	▽ 500 2000	186320 186321	≥ 12	≥ 13	≥ 24	–	–	P. 128	P. 148
	Cabineo 12 black	▽ 500 2000	186330 186331					–	P. 128	P. 148
	Cabineo 8	▽ 500 2000	186310 186311	≥ 12	≥ 9	≥ 16	–	–	P. 130	P. 148
	Cabineo 8 black	▽ 500 2000	186340 186341					–	P. 130	P. 148
	Cabineo 8 M6	▽ 500 2000	186315 186316	≥ 12	≥ 9	≥ 16	–	–	P. 132	P. 148
	Cabineo 8 M6 black	▽ 500 2000	186345 186346					–	P. 132	P. 148
	Cabineo insert M6 × 12.3 mm	▽ 100 500	186370 186371	≥ 14	≥ 14	14-16	–	–	P. 134	P. 149
	Cabineo insert M6 × 15.3 mm	▽ 100 500	186375 186376	≥ 14	≥ 17	17-25	–	–	P. 134	P. 149
Cabineo X Detachable	Cabineo X	▽ 500 2000	186360 186361	≥ 12	≥ 9	≥ 24	–	–	P. 136	P. 148
	Cabineo X black	▽ 500 2000	186365 186366					–	P. 136	P. 148
	Cabineo 12 screw	▽ 500 2000	186380 186381	–	≥ 13	≥ 24	–	–	P. 136	–
	Cabineo 8 screw	▽ 500	186382	–	≥ 9	≥ 16	–	–	P. 136	–
	Cabineo 8 M6 screw	▽ 500	186384	–	≥ 9	≥ 16	–	–	P. 136	–
	Cabineo X shelf support Ø 5	▽ 500	186386	–	≥ 9	≥ 16	–	–	P. 136	–
	Cabineo X shelf support Ø 3	▽ 500	186388	–	≥ 9	≥ 16	–	–	P. 136	–
Invis Mx2 Detachable	Invis Mx2 connector set incl. 14 mm studs	⊖ 20	6012300	≥ 18	≥ 15	–	–	–	P. 142	P. 150
	Invis Mx2 connector set incl. 30 mm studs	⊖ 20	6012301		≥ 33	–	–	–	P. 142	P. 150
	Invis Mx2 connector 35 mm	▽ 20	6012317		–	–	–	–	P. 144	–
	Invis Mx2 stud 14 mm	▽ 20	6012312		≥ 15	–	–	–	P. 144	P. 150
	Invis Mx2 stud 30 mm	▽ 20	6012309		≥ 33	–	–	–	P. 144	P. 150
	Invis Mx2 centre wall stud	▽ 10	6012208		–	10-30	–	–	P. 144	P. 151

Plan your furniture with Lamello

Are you planning a piece of furniture and you know what it needs to look like, but don't know which connector to use? Our new website makes it easy for you to find the right connector.
Use the P-System configurator to display the correct position in the workpiece. Watch the tutorial videos for practical applications and useful tips. Try it for yourself at www.lamello.com!

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– mitre joint
– in a material thickness
  of 16 mm

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