

THEURL
AUSTRIAN PREMIUM TIMBER®

PRODUCTS



CLTPLUS
JOINERY SERVICE
CONSTRUCTION PLANNING
SPECIAL SOLUTIONS
PAGES 2-11

CLT

GLUED LAMINATED TIMBER
CEILING ELEMENTS
JOINERY SERVICE
PAGES 12 - 17

GL

PLANED PRODUCTS
PAGES 18 - 19

PP

SAWN TIMBER
PAGES 20 - 21

ST

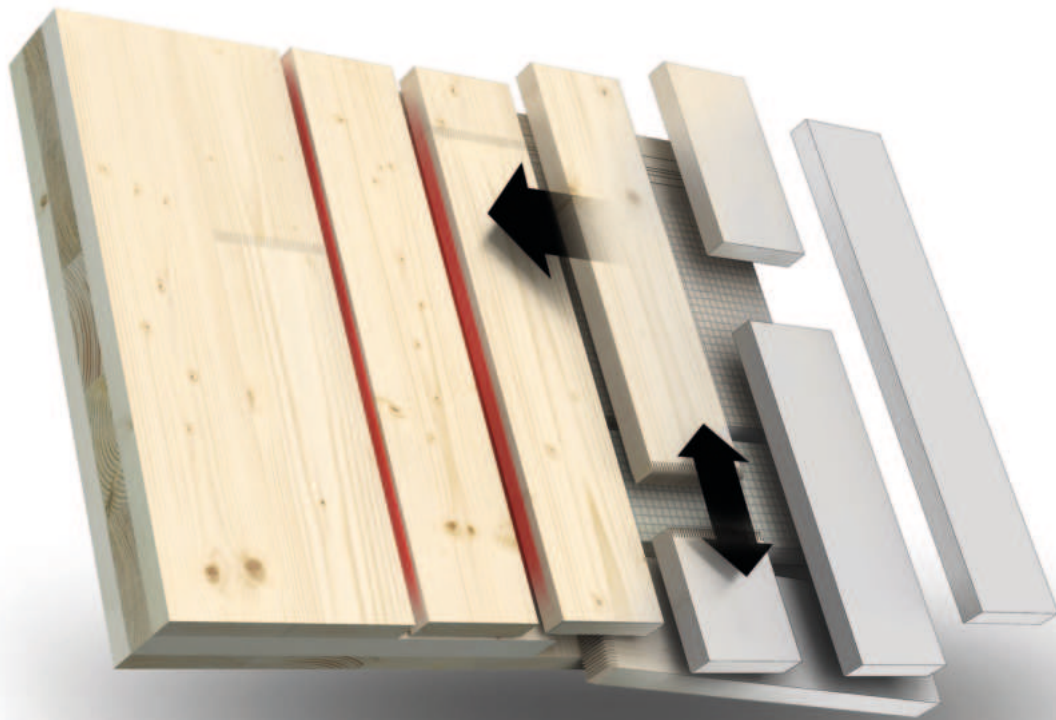
CLT

CROSS LAMINATED TIMBER



CLTPLUS TECHNOLOGY

The high-performance construction material with great potential. At least three layers of cross-laminated board make CLTPLUS an almost universally applicable stand-out product.



01 HIGH STABILITY

The timber layers are pressed with alternating cross sides in the central positions. This means that higher form stability and dimensional accuracy is obtained for the elements.

02 SURFACE PROCESSING

We sand our CLTPLUS elements in visible and industrial plus quality in the grain direction to emphasise the natural structure of the high-quality mountain timber.

03 CUSTOMISABLE SUPERSTRUCTURES

The possible combinations of longitudinal and cross layers with thicknesses of 20, 30 and 40 mm result in numerous panel structures from 3 to 9 layers.

04 THEURL INSIDE CODING

Each timber layer receives an individual code which is invisible from the outside. This makes the origin of each component traceable for life.

05 NARROW SIDE ADHESION

The individual timber layers are first glued to form a one-layer board to create high air density. At the same time, this procedure increases the stability and enhances the stiffness and earthquake protection.

06 BENDING STIFFNESS

Various timber layer thicknesses in the layer structure adapt the bearing capacity of the component to the requirements of the statics. The component structure, which is specifically adapted to the load, reliably absorbs the forces.

CLTPLUS

CLTPLUS is a stable and reliable construction material prefabricated to measure individually and precisely in the factory. The high degree of pre-fabrication make it a high-tech construction material which is both economical, stable and natural at the same time.



OPTICAL QUALITY

Suitable for visible surfaces
Enhanced industrial quality
Industrial qualityg

SUPPLY RANGE

Type of wood	Spruce, fir and pine
Wood moisture content	10 - 12 % (+/- 2 %)
Laminations	20, 30 or 40 mm
Layers in parallel	2 (max. number)
Panel structure	3, 5, 7, 8 or 9 layers
	Single-layer panels glued crosswise on surface and edges
Thickness	60 - 360 mm
Length	8 - 16 m (in 10 cm steps)
Width	2,25 - 3,50 m
Grid dimensions	225 cm
	245 - 295 cm (in 10 cm steps)
	310, 330 and 350 cm

TECHNICAL SPECIFICATIONS

Durability	Use class 1 and 2 according to EN 1995-1-1
Strength classes	C24 according to EN 338
Bonding	One-component polyurethane adhesive without the addition of solvents and formaldehyde EN 15425
Weight	5,5 kN/m ³ according to ÖNORM B 1991-1-1
Thermal conductivity	0,12 W/m ² K according to EN ISO 10456
Heat storage c.	1600 j/kgK EN ISO 10456
Diffusion resistance	$\mu = 20$ (wet) to 50 (dry) according to EN ISO 10456
Airtightness	Class 4
Fire behaviour	D-s2, D0
Resistance fire	Charring to the cover layer β_0 0,65 mm/min Charring of more layers than the cover layer β_n^{**} 1,3 mm/min **Until 25 mm of charring. Afterwards the charring rate 0.65 mm/min applies up to the next glue line.
Certification	ETA-20/0843 from 12.12.2023 Constancy of performance 1359-CPR-081

STANDARD STRUCTURES

Alternative formats possible upon request. The double-length layers are suitable for particularly stringent, static requirements.

C-panel · wall

Element type Thickness Element structure/lamellae thickness
(mm) (mm)

		C	L	C	L	C	L	C
C3	60	20	20	20				
	80	30	20	30				
	90	30	30	30				
	100	30	40	30				
	120	40	40	40				
C5	100	20	20	20	20	20		
	120	30	20	20	20	30		
	140	30	30	20	30	30		
	160	40	20	40	20	40		
	180	40	30	40	30	40		
	200	40	40	40	40	40		

Structure

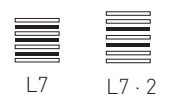
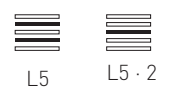
Top layer in spruce
Central layer in
spruce, fir, pine



L-panel · ceilings and roofs

Element type Thickness Element structure/lamellae thickness
(mm) (mm)

		L	C	L	C	L	C	L	C	L
L3	60	20	20	20						
	80	30	20	30						
	90	30	30	30						
	100	30	40	30						
	120	40	40	40						
L5	100	20	20	20	20	20				
	120	30	20	20	20	30				
	140	40	20	20	20	40				
	160	40	20	40	20	40				
	180	40	30	40	30	40				
	200	40	40	40	40	40				
L5 · 2	160	30 · 2	40	30 · 2						
L7	180	30	20	30	20	30	20	30		
	200	20	40	20	40	20	40	20		
	220	40	20	40	20	40	20	40		
	240	30	40	30	40	30	40	30		
L7 · 2	180	30 · 2	20	20	20	30 · 2				
	200	30 · 2	30	20	30	30 · 2				
	220	40 · 2	20	20	20	40 · 2				
	240	40 · 2	20	40	20	40 · 2				
	260	40 · 2	30	40	30	40 · 2				
	280	40 · 2	40	40	40	40 · 2				
L8 · 2	300	40 · 2	30	40 · 2	30	40 · 2				
	320	40 · 2	40	40 · 2	40	40 · 2				
L9	360	40	40	40	40	40	40	40	40	40



JOINERY SERVICE

Thanks to our computer controlled production, THEURL meets the highest demands of precision and quality in modern timber construction. We produce individually manufactured CLTPLUS solid wood elements with the greatest care and expertise in our joinery service centre.



SERVICE PORTFOLIO

Mass determination
3D project development with area optimisation
3D project development with cross-section optimisation

DATA PREPARATION

SEMA, Dietrich`s, cadwork, hsbcad
We convert your project data into CNC machine data.

JOINERY SERVICE

Formatting at right angles to the panel surface
Ceiling and wall timber framing – cut at right angles for the panel surface
Machined on both sides
Outlets and openings for beams, purlins and rafters
Various drill holes, deep hole drilling, etc.
Post-machining of corner curves

LOGISTICS

The company's own swap trailers are available on request.
With the loading space optimisation (LRO), the correct sequence of the individual components is created and defined virtually in advance.

DIGITAL SERVICES

How can fine tuning between the customer, timber construction technology, production and logistics be optimised? Where can we find unused potential in data exchange and the planning process? And how can you actually determine which solid timber elements are needed and when? The future belongs to timber construction, but the innovative digital solutions from THEURL already offer the answer to all these pressing questions.



FOUR CAD PROGRAMMES

THEURL is the only industrial partner that can create joinery plans for CLTPLUS and glued laminated timber in all four common CAD programmes such as SEMA, Dietrich`s, cadwork and hsbcad.

Whether it`s a private family home or a major project - projects of all categories are processed on a digital twin, which contains detailed information on each individual component.



PERFECT PLANNING FOR LOGISTICS

Precisely planned loading of every individual element is essential for all construction site deliveries. This is the only way to adhere meticulously to tight construction schedules. Specially developed loading space optimisation allows the individual components to be loaded onto the truck in the correct order. This saves a lot of time on-site.



TIM - THEURL INFORMATION MANAGER

TIM allows customers to not only keep an eye on their project status at all times, the application also enables secure and uniform data exchange of all plans and documents. Extensive and large amounts of data from a wide variety of sources can therefore be exchanged. As the interface between THEURL and its customers, TIM provides the perfect service platform.



Discover huge advantages and save time with TIM. Register now!

SERVICE PORTFOLIO FOR TIMBER CONSTRUCTION PLANNING

At what stage is your project planning in? Based on your submitted project data, we can define the planning progress and create an offer from our service portfolio.

THE LEVEL OF COMPLETION OF YOUR PROJECT IS A...

APPROVAL PLAN (2D)

Our options

- + Offer according to Service Package 1
- + Offer according to Service Package 2
- + Offer according to Service Package 3

3D PLAN

Our options

- + Offer according to Service Package 2
- + Offer according to Service Package 3

EXECUTION PLAN

Our options

- + Definition of lifting equipment
- + Evaluation of defined joinery details
- + Feasibility check
- + Elementing, waste optimisation





OUR SERVICE PORTFOLIO INCLUDES

A few steps are necessary for error-free execution planning. We offer a service portfolio with three different levels of performance. Of course, we can think on a complete project development upon request. We would be happy to prepare an offer for our technical services.

SERVICE PACKAGE 1

Mass determination

- + Mass determination according to plan
- + First offer creation with gross volume, standard volume according to area and delivery costs

SERVICE PACKAGE 2

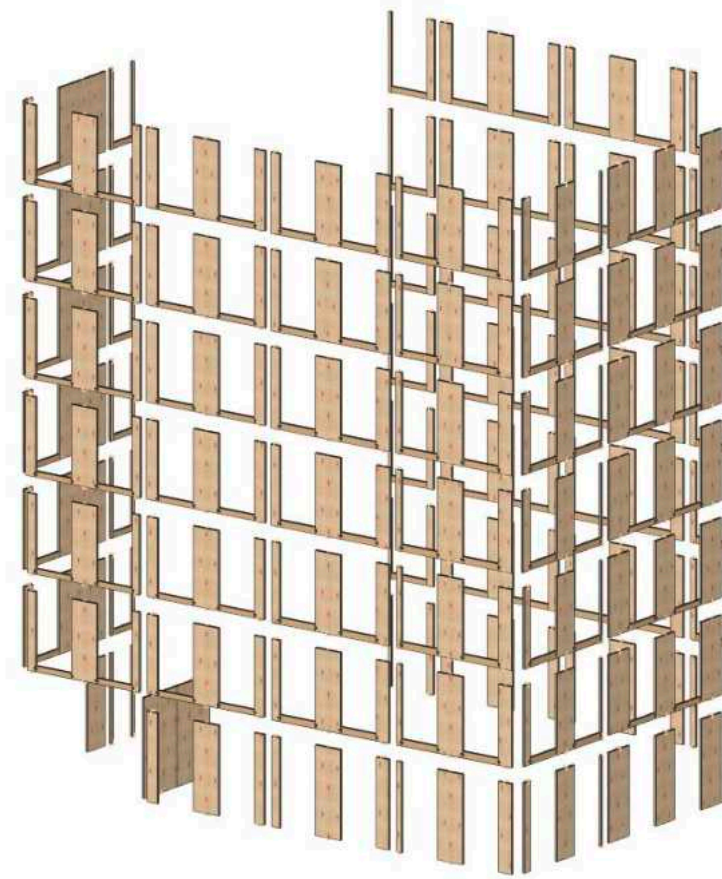
3D project development with area optimisation

- + 3D mass determination with areas and waste optimisation, nesting in advance
- + Classification of components
- + Project is drawn from 2D to 3D
- + Standard composite components
- + Definition of the lifting equipment and required processing
- + Clarification of all special processing, if available or defined in the plan

SERVICE PACKAGE 3

3D project development with cross-section optimisation

- + All services of package 2
- + Review of optimisation proposals for the static cross sections (preliminary design), final review by a structural engineer required
- + Detailed suggestions for static fasteners according to individual requirements



STEP BY STEP

ORDERING

In orders, production capacities are reserved based on the existing planning status and the exact delivery date is set. Our digital customer portal TIM is available for you to track the project status at any time.



More about the project process.



SPECIAL SOLUTIONS

CLTPLUS is not only a really innovative building material of the future, but can be used almost universally. Rigid and dimensionally stable CLTPLUS eiling elements are ideal when dealing with large spans and low component heights.



More about the special solutions.



LARGE SUPPORT GRID AND FLEXIBLE CEILINGS WITH TS3

Entirely in keeping with futuristic timber construction, our key TS3 connection technology permits skeleton structures without support beams, whose aesthetic is marked by slim, point-supported panels of arbitrary size, thanks to front-side joint filling.



MOISTURE PROTECTION FOR CEILING ELEMENTS

Visible ceiling elements in particular require special attention during production, transport and assembly. The membrane is fully bonded to the CLTPLUS ceiling elements in the factory.



LARGE SPAN THANKS TO RIBBED CEILINGS

When planning spans of more than six metres, ribbed ceilings are a sensible and economical solution. Attributes such as excellent strength, enormous stability and high load-bearing capacity combined with low weight make the use of this type of ceiling so attractive.



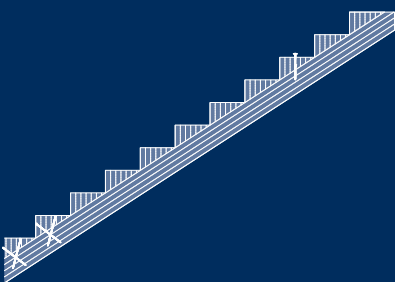
X-FIX: CONNECTOR

Point-shaped, self-clamping, dovetail-shaped – the innovative X-fix timber-to-timber connector joins cross-laminated timber ceilings and walls with shear and tensile strength.



STAIRCASE: TIMBER, UP AND DOWN

CLTPLUS makes a convincing argument, especially in the construction of single flights of stairs. The direct connection of two floors without an intermediate landing can be realised using solid wood elements.

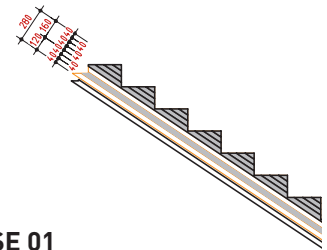


STAIRS combined from CLTPLUS and BSH wedges

On request, we produce ready-made kits from CLT stair flights with glulam wedges attached. The wedges are installed by means of screw press bonding according to static requirements.

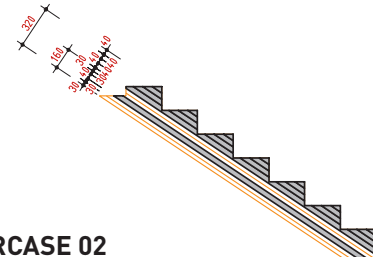
FEATURES

- Stair flight made of CLTPLUS
- Tread thickness according to static requirements
- BSH wedges
- Variable height/width
- Lifting system variable



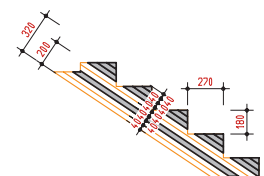
CLTPLUS STAIRCASE 01

- 280 mm, to 4 m
- Construction: CLTPLUS 280 L7 A2 for staircase construction
- L40-C40-L40-C40-C40-C40-C40
- 120 mm static cross-section as per ETA 20/0843
- 160 mm doubling up for step formation C-transverse layers



CLTPLUS STAIRCASE 02

- 320 mm, to 5 m
- Construction: CLTPLUS 320 L9 for staircase construction
- L30*2-C40-L30*2-C40-C40-C40-C40
- 160 mm static support cross-section as per ETA 20/0843
- 160 mm doubling up for step formation C-transverse layers
- Underside in Industry Plus and Visible Quality upon request
- Minimum order quantity: 2.25 x 8 m



CLTPLUS STAIRCASE 03

- 320 mm R90 up to 6 m
- Construction: CLTPLUS 32 L8*2 for staircase construction
- L40*2-C40-L40*2-C40*3
- 200 mm static cross-section as per ETA (Warning! 4th longitudinally cut)
- Suitable for long and shallow flights of stairs

The static and structural assessment of the building element for stairs made of CLTPLUS and glulam must be provided by the client.



GL

GLUED LAMINATED TIMBER

GLUED LAMINATED TIMBER



THEURL glued laminated timber is made of at least two lamellas. The load capacity is much greater than that of conventional timber, due to the layered structure. Another quality characteristic is the selected knotless wood, which is glued parallel to the fibre and planed on four sides, resulting in aesthetically pleasing functional components.

CHARACTERISTICS

Wood type	local spruce (larch on request)
Thickness lamellas	40 mm
Moisture content	11 % +/- 2,5 %
Surface	Visual or industrial quality, planed on 4 sides, Chamfered edges
Strength class	GL 20h, GL 24h, GL 28h/c, GL 32h/c

QUALITY

Product standard	EN 14080:2013
Durability	Use class 1 and 2 according to EN 1995-1-1
Bonding pressure	0,8 - 1,0 N/mm ²
Weight GL 24h	420 kg/m ³ , according to EN 14080:2013, Tabelle 11
Fire behaviour	D-s2, d0, according to EN 14080:2013, Tabelle 11
Formaldehyde	E1
Sorting	mechanically according to DIN 4074-4 and EN 14081-1
Gluing	MUF melamine resin urea-based glue, weather-proof, transparent glued joints

SUPPLY RANGE

Width	60 – 280 mm
Height	120 – 1280 mm
Length	min. 6 m – max. 18 m

Height mm	GL 24h		GL 28h		GL 28c		GL 32h		GL 32c	
	120 - 1280		120 - 1280		320 - 1280		120 - 1280		320 - 1280	
Quality	Visual	Industrial	Visual	Industrial	Visual	Industrial	Visual	Industrial	Visual	Industrial
Width mm										
80	■	■								
100	■	■								
120	■	■								
140	■	■	■	■	■	■	■	■	■	■
160	■	■	■	■	■	■	■	■	■	■
180	■	■	■	■	■	■	■	■	■	■
200	■	■	■	■	■	■	■	■	■	■
220	■	■	■	■	■	■				
240	■	■	■	■	■	■				
260	■	■	■	■	■	■				
280	■	■	■	■	■	■				

On request

GL 32h and GL 32c with heights 220 - 280 mm

Width 60 mm as GL 20h with heights up to 480 mm, industrial quality

GL 24c from height 320 mm

CEILING ELEMENTS



THEURL produces ready-to-fit ceiling elements with various profiles.

Quality:	GL 24h
----------	--------

Standard dimensions

Width:	400 - 1.200 mm
--------	----------------

Thickness:	80 - 280 mm
------------	-------------

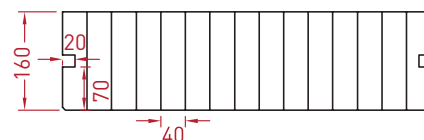
Length:	6 - 18 m
---------	----------

GLULAM ELEMENTS

SINGLE GROOVE, TYPE 1

Covered dimensions (= invoiced dimensions): 600 mm | Groove: 20 mm

Thickness	80	100	120	140	160	180	200	220	240	280
-----------	----	-----	-----	-----	-----	-----	-----	-----	-----	-----



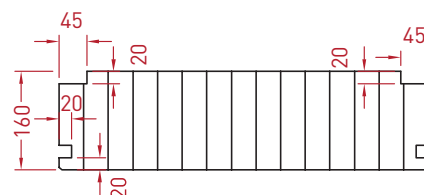
GLULAM ELEMENTS

SINGLE GROOVE AND RABBET JOINT, TYPE 2

Covered dimensions (= invoiced dimensions):

600 mm | Groove: 20 mm | Rabbet above: 20 x 45 mm

Thickness	100	120	140	160	180	200	220	240
-----------	-----	-----	-----	-----	-----	-----	-----	-----

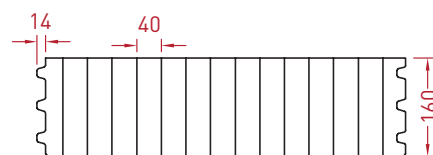


GLULAM ELEMENTS

DOUBLE TONGUE AND GROOVE, TYPE 3

Covered dimensions: 580 mm | Invoiced dimensions: 600 mm | Groove: 14 mm

Thickness	80	100	120	140	160	180	200	220	240
-----------	----	-----	-----	-----	-----	-----	-----	-----	-----



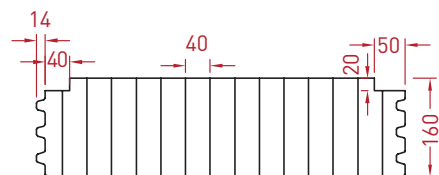
GLULAM ELEMENTS

DOUBLE TONGUE AND GROOVE WITH RABBET JOINT, TYPE 4

Covered dimensions: 580 mm | Invoiced dimensions: 600 mm

Groove: 14 mm | Rabbet above: 20 x 40 mm and 20 x 50 mm

Thickness	100	120	140	160	180	200	220	240
-----------	-----	-----	-----	-----	-----	-----	-----	-----



GLULAM ELEMENTS

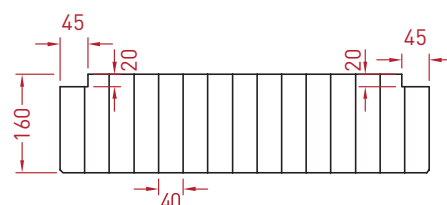
WITH RABBET JOINT, TYPE 5

Covered dimensions (= invoiced dimensions): 600 mm

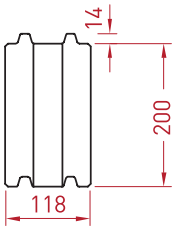
Rabbet above: 20 x 45 mm (thickness 100 - 240 mm)

Rabbet above: 20 x 20 mm (thickness 80 mm)

Thickness	80	100	120	140	160	180	200	220	240
-----------	----	-----	-----	-----	-----	-----	-----	-----	-----



Block planks

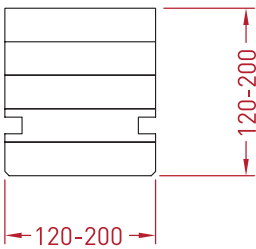


Strength class:	C24 (pursuant to 338)
Quality:	Visual quality, industrial quality

Standard dimensions

Thickness:	118, 158, 198 mm
Height:	220 mm
Length:	6 – 18 m

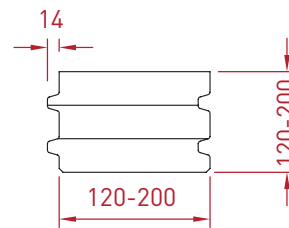
Glulam natural elements, single groove, type 1



Standard dimensions

Thickness:	120, 160, 200 mm
Height:	140, 160, 180, 200 mm
Length:	6 – 18 m

Glulam natural elements double tongue and groove, type 3



Standard dimensions

Thickness:	120, 160, 200 mm
Height:	140, 160, 180, 200 mm
Length:	6 – 18 m

Other dimensions available on request!



JOINERY SERVICE

With computer-assisted manufacturing, THEURL meets the highest precision and quality requirements of modern timber construction. In our assembly facilities, we carefully and expertly produce individual wooden structures measuring up to 18 m in length and 1.25 m in height.



CONSULTANCY

Representation of the offer.
Competent advice in the planning phase.
Calculation for the offer.
Preliminary calculation by means of the THEURL calculation.
Reliable processing and development.

DATA PREPARATION

SEMA, Dietrich's, hsbcad and cadwork.
Other kinds of processing are also possible.

JOINERY MACHINES

Hundegger K2i 1300 ROBOT
Hundegger K2i 1300 ROBOT
Hundegger K2i 1250 5-Achsen

SURFACE TREATMENTS AND REFINING STEPS

Chopping or brushing are optionally available
from our partner companies.

PRE-ASSEMBLY

With connectors; from the insertion of the connectors to the ready-to-install constructions.

JOINERY SERVICE

Editing on both sides
Outlets and openings for beams, purlins and rafters
Machining at all angles and inclinations
Horizontal and vertical processing
Milling, drilling, slotting

LOGISTICS

Timely delivery of the ready-to-install constructions with prepared installation plans.



PP

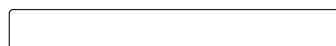
PLANED PRODUCTS

PLANED PRODUCTS



Only monitored, pre-sorted sawn timber of the best quality is processed in our planing mill. Fine-fibred planed items with smooth surfaces, which meet the highest design requirements both inside and outside.

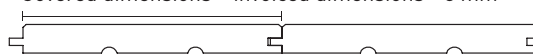
Planed boards S4S



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	20	115 / 145	110 / 140	4	540 / 385	per m ²		■		■
Spruce	20	175 / 195	170 / 190	4	330 / 275	per m ²		■		■
Spruce	23	145 / 175	140 / 170	4	336 / 288	per m ²		■		■

Covered dimensions = invoiced dimensions - 8 mm

Chamfer cladding (with 4 mm chamfer)



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	20	115	107	4	540	per m ²		■		■
Spruce	20	145	137	4	385	per m ²		■	■	■
Spruce	20	175 / 195	167 / 187	4	330 / 275	per m ²		■		■

Covered dimensions = invoiced dimensions - 8 mm

Chamfer cladding both sides usable with 4 mm chamfer



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	20	145	137	4	420	per m ²		■		■
Spruce	23	145 / 175	137 / 167	4	336 / 288	per m ²		■	■	■

Covered dimensions = invoiced dimensions - 8 mm

Ship floor, profiled on 2 sides



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	23	115	107	4	405	per m ²	■			■
Spruce	31	155 / 175	147 / 167	4	238 / 204	per m ²	■	■	■	■
Spruce	41	175	167	4	156	per m ²		■		■

Covered dimensions = invoiced dimensions - 8 mm

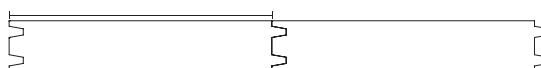
Block wall cladding, 2 mm chamfered edges



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	20	175	167	4	330	per m ²		■		
Spruce	24	175	167	4	288	per m ²		■		

Covered dimensions = invoiced dimensions - 10 mm

Fire protection cladding



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	31	175	165	4	204	per m ²		■		
Spruce chamf.	41	175	165	4	156	per m ²		■		■

■ The planed goods are produced to the usual high quality! · Invoiced dimensions = dimensions incl. tongue!

A close-up photograph of several layers of light-colored sawn timber planks stacked on top of each other. The wood grain is clearly visible, showing a mix of straight and wavy patterns. The lighting is warm, highlighting the texture and natural color of the wood. The planks are arranged in a slightly overlapping manner, creating a sense of depth and texture.

ST

SAWN TIMBER

SAWN TIMBER



Fine-grained Alpine spruce wood is cut parallel to the trunk axis. This, and the careful drying, guarantee wood products of perfect shape for every application.

Laths

Type	Thickness mm	Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce	30	40 / 50 / 60 / 80	4	per m ³		■	
Spruce	40	40 / 50 / 60 / 80	4	per m ³		■	
Spruce	50	50 / 60 / 70 / 80 / 100	4	per m ³		■	
Spruce	60	60 / 80 / 100 / 120 / 140	4	per m ³		■	

Scantlings

Type	Thickness mm	Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce fresh	80 / 100	80 / 100	4	per m ³	■	■	

Sawn timber, prismatic fresh

Type	Thickness mm	Width mm	Length m	Unit	0-V	III-IV	III-IV-V	IV-V
Spruce fresh	17	75 / 95	3 - 4	per m ³	■			
Spruce fresh	17	115	4	per m ³	■			

Sawn timber, narrow

Type	Thickness mm	Width mm	Length m	Unit	III-IV	III-IV-V
Spruce	24	80-160	4	per m ³		■

Sawn timber, wide

Type	Thickness mm	Width mm	Length m	Unit	III - IV	III - IV - V	IV - V
Spruce	24 / 30	160 +	4	per m ³	■	■	

Sawn timber, prismatic

Type	Thickness mm	Width mm	Length m	Unit	0 - V	III - IV	III - IV - V	IV - V
Spruce	24	100 / 120	4	per m ³			■	
Spruce	30	300	4	per m ³	■		■	
Spruce	40 / 50	245	4	per m ³		■	■	■
Spruce	40	360	4	per m ³	■		■	

Level sawn timber; tongue and groove (on request)

Covered dimensions = invoiced dimensions - 8 mm



Type	Thickness mm	Width mm	Cover width mm	Length m	Pieces / pack	Unit	A	AB	B	BC
Spruce	22	145	137	4	350	per m ²				■

