From log to board using a chain sawmill

Our best tips!

LOGOSOL

EVERYONE CAN SAW THEIR OWN BUILDING MATERIAL

Easy to get started

No special training is needed to get started and saw with LOGOSOL's chainsaw. From a log table, the log is simply rolled onto the log lifts. The log is then cranked up into the correct position. You start the saw and drive it forward through the log which is quickly sliced up into planks and boards.

The sawmill with the most advantages

LOGOSOL's chain sawmill is the sawmill you can use both as a stationary sawmill, for example, in your saw house, or as a portable sawmill, out in the forest. The durability of the sawmill is lifelong, and it can handle large logs without problems. Thanks to the fact that it is made of super-strong and stainless anodized aluminum, you can saw all year round, in all weathers, year after year. LOGOSOL's chain sawmill retains its high quality and high value.

Over 45,000 satisfied chain sawmill owners

There are over 45,000 Logosol chain sawmill owners worldwide. So we know that the sawmill works well. Every function and every detail has been refined over the years for optimal function and best quality.

You, as a customer, are extremely important to us. Our goal is for all customers to be completely satisfied with their chainsaw. That's why we always have a 2-month open purchase (for real, you get to try the sawmill before you decide) and a 2-year warranty on your machine. We are also always available by phone if there is anything you are wondering about.

The sawmill for everyone!

Whether you have your own forest or not, a chain sawmill is a good investment. Many of our customers saw with LOGOSOL's chain sawmill without having access to their own forest. Most people get their hands on timber somehow. We often hear from our customers that the sawmill works as a "timber magnet"!

Regardless of what you intend to use your sawmill for, we can promise that you will get great pleasure from it and that it is a safe investment.

We hope these tips and collected experiences can be useful to you.

Common areas of use for sawn timber:

- Exterior siding/paneling
- Houses and cabins
- Garages and carports
- Garden furniture
- Raised hides for hunting
- Flower boxes
- Saw houses and storage
- Machine halls
- Decks and porches
- Greenhouses
- Lean-to shelters
- Bridges and garden structures
- Fences

GET STARTED MILLING!

Most chain sawmill sawers think the best thing about the sawmill is the satisfaction of sawing their own wood. You will feel it when your first log has been milled. In addition, the coffee tastes better on a porch that you built from boards you saw yourself. At least it feels that way.

Your safety is important to us

We attach great importance to the safety of our machines. If you do physical work - long sawing and handling of logs and boards, it is easy for accidents to happen. Take care of yourself and use the prescribed protective equipment.

Please note! In order to get a sawmill CE marked, it is required that the button (holding device) on the electric saw units must be held in during sawing. If something unexpected happens, the saw stops quickly. A rotating saw chain that is fed forward at a fast speed must be under control for safe sawing.

Although many sawmill owners ensure that the button does not need to be held down during sawing, we strongly advise against this for the sake of safety.

Tips!

- When delivering your logs, think through how you want the timber laid out. Once in place, it is difficult to move.
- A good log table facilitates easier sawing. LOGOSOL has ready-made log tables. You can also easily make one yourself with logs or planks.
- When handling the logs, be sure to use good tools to work safely.
  LOGOSOL has unique tools that facilitate log handling. For example, we recommend The Premium Cant Hook and the Smart Turner for turning logs and the Smart Hook for lifting.
  You can also buy traditional tools such as timber hooks and lifting tongs.

THE PERFECT SAWMILL -NO MATTER THE PLACE

LOGOSOL´S chain sawmill is the best choice for chain sawmilling.

Our chainsaws are perfect machines for sawing planks and boards. The chain sawmills are optimized to meet high demands, whether you are sawing in the forest or at home. With over 45,000 sawmills sold and just as many satisfied customers, we know that the sawmill works incredibly well.

Our chain sawmills are primarily designed to be portable. They are designed to withstand the high demands out in the field. To cope with this, the sawmill is made of high-alloy aluminium. It provides a construction that can handle extremely high loads while still keeping a low weight on the sawmill itself. It is also completely stainless, which is an advantage as the sawmill is set up outdoors all year round.

What works great for mobile use naturally works even better for permanent installation. 4 out of 5 customers use the sawmill permanently set up. With simple means, one can arrange a permanent workplace so that even extremely large logs can be sawed.
Primarily, it is a log table in front of the saw bench that creates a functioning and ergonomic workplace. LOGOSOL's log table in steel makes log handling smooth when you are set up to saw in one place for a long time.

It is also easy to build your own log table from logs or planks. Rolling on a log from a log table at the correct height is also by far the fastest way to get started sawing the next log.

ADVANTAGES OF LOGOSOL CHAIN SAWMILLS

- The World´s most popular chain sawmill, + 45 000 sold.
- 2-months-money-back guarantee and 2-year warranty.
- Durable and dirt-repellant material. Never rusts.
- Superiorly reliable and maintenance-free.
- Quick to get started with fixed step increments .
- Impressive measurement precision.
- Made to use outdoors year-round.
- Easy to extend.
- Optimal for stationary setup.
- Portable for sawing in the forest or other locations.
- Easy and fun to use.
- Sturdy construction that can handle extra large logs.
- Available with chainsaw, electric saw and log moulder.
- Get set up quickly and start sawing easily.
- Separate setting of each log bed for ultimate performance (more info on page 7).
- Maintains high second-hand value.
- Easy to store and move.
- Continuously refined design since 1989, each detail optimized for high quality, function, and choice of material.
- LOGOSOL is a trustworthy and stable company that was started in 1989. We care deeply about you as a customer and always do our utmost to exceed your expectations.

ADVANTAGES OF AN ALUMINUM CONSTRUCTION

- Lightweight
- Extreme torsional strength and durability
- Withstands very high weights
- Never rusts (can be left outside all year round)
- Maintenance free
- Damaged parts are easily replaceable

SEPARATE SETTING OF EACH LOG BED

When a log is to be sawn for maximum yield and in the direction of the wood grain, the fastest and easiest way in 75% of all saw cuts is with the log beg at different heights. It is therefore important that the sawmill is adapted for that type of sawing.
LOGOSOL's chain sawmills are made specifically with that feature in mind.

In order to get a good saw yield, it is important that the setting for the first saw cut is made with the greatest possible precision. Getting the top and root levels right every time you start a new log or block is the most important. It is also the part that takes the most time when setting up your sawmill. Even small errors mean a loss of saw yield. Individual level adjustment of the log shelves is necessary for it to be accurate and for it to go quickly.

There are many methods and templates to get the first saw cut in the right place. LOGOSOL has developed a method and saw template that is absolutely superb, which saves time and gives perfect results. You can buy the post template from LOGOSOL but it is also very easy to make yourself. The template is available on our website, Logosol.com.
The adjustment of the log bed is made in fixed increments of a quarter of an inch with a smooth self-locking click system. In this way, you quickly set exact measurements throughout the sawing of the log.

STEP BY STEP- BLOCK SAWING

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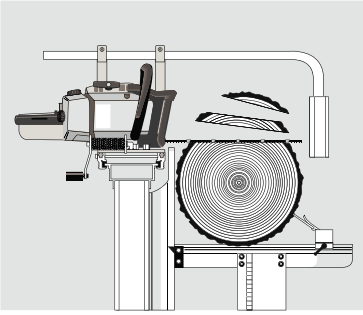

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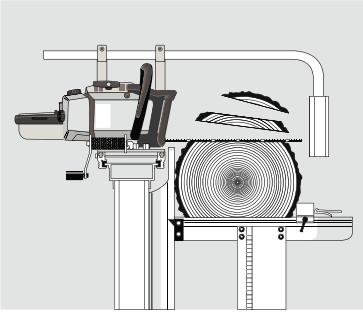

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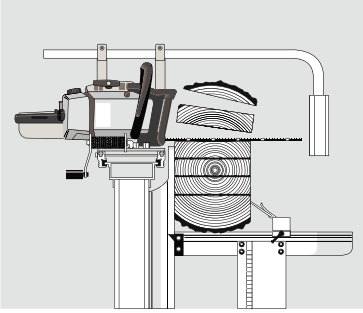

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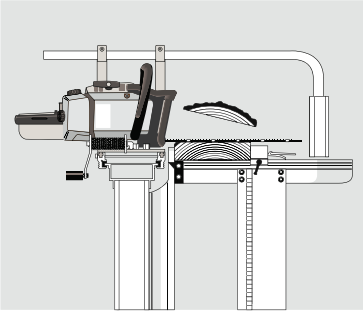

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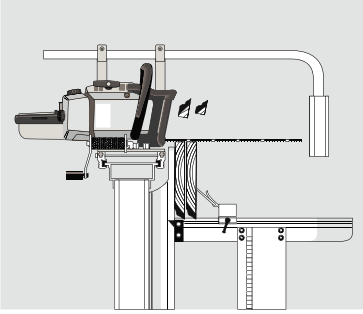


Step 1. First cut

- Roll the log onto the log beds.
- Clamp the log with the log clamps.
- Raise the log so that a suitable piece of the log is sawn off. Normally, the top end of the log is raised more than the root end to make the cut parallel to the core.
- Saw off the butt cut.
- On thicker logs, another unedged (with the bark remaining on the edges) board is sawn out.

Step 2. Make a block

- Turn the log over and repeat the steps from Step 1, now with the log shelves at the same height.
- The position of the log beds on the last cut of the block determines the width of the finished boards.
- Now the block is done.

Step 3. Saw the block into boards

- Turn the block 90 degrees. Fasten with the log clamps. Adjust the log beds so that a suitable butt cut is sawn off. Adjust the top end so that the cut is parallel to the core.
- Raise both log beds the same amount before each cut and saw out planks and boards until about 10 cm remains of the block.

Step 4. Saw the last board

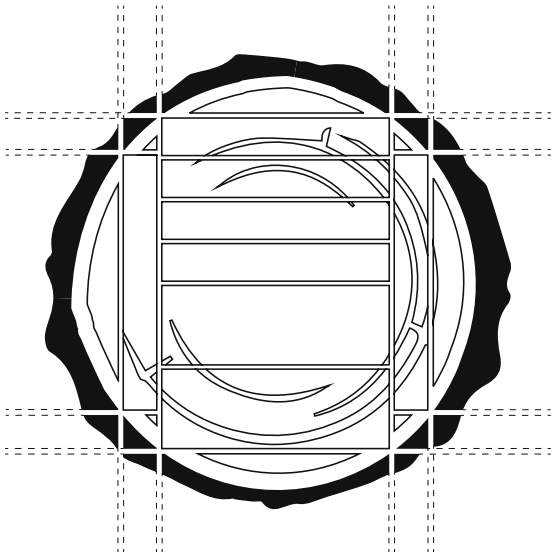
- When you get down to the middle of the log, turn it over. Expect to get a two-inch plank when you saw the last cut.

Step 5. Edging

- Set up the unedged boards from Steps 1 and 2 together on the log beds. Fasten them with the log clamps and saw off the bark on both edges.

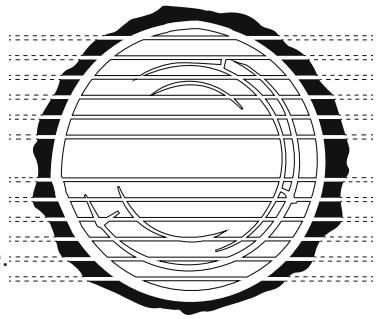
Keep in mind

- The log bed of the top end of the tree is usually set higher than the root end when the first cut is made.
- The log beds are usually placed at the same height when a sawn surface is facing downwards.
- Always compensate for the saw cant (1 extra click).
- The last board should not be thinner than 2”.
- In the beginning, it can be good to mark on the ends of the log what you want to saw out. Draw with a coarse marker so that the line corresponds to the saw cut.



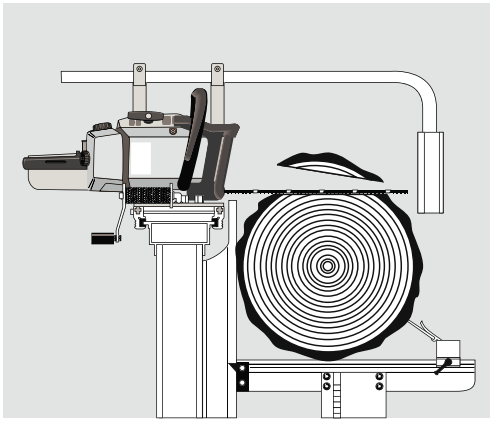
TWO OTHER SAWING TECHNIQUES

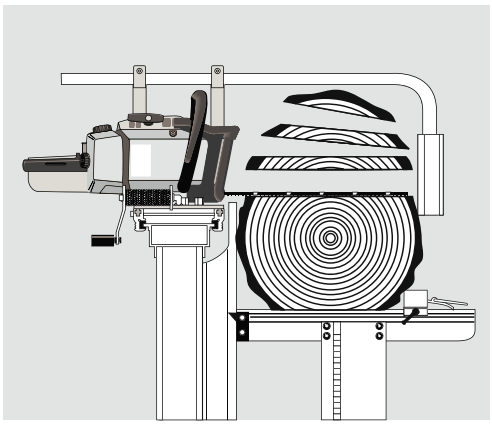
Through sawing



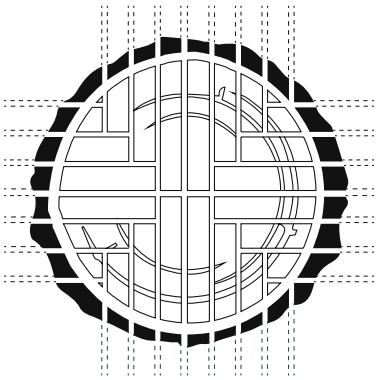
Sometimes it may be better to slice the entire log into unedged boards. That way you can get a little more out of each log. However, it takes a little longer time. For fine carpentry, it may be good to edge one side before drying. The final edging is only done when you know what the piece will be used for. Everything is designed to be able to use as much of the log as possible.

When you are going to slice a log, it is good if you first saw off a thin butt cut and then turn the log downwards so that the log rests on a flat surface. This ensures that the log does not move between the cuts and you will get nice, even, thick boards. Flip the log as you approach the center.





Quarter sawing



You get the finest wood if you do quarter sawing. This way you get the optimal fiber direction in all boards, which is a big advantage for e.g. furniture carpentry. The disadvantage is that it takes time, that it is difficult, and that you get several different widths of the wood. Quarter sawing should not be done on logs that are too small.
Start by sawing the log in the middle, but do not saw all the way through. Turn the log 90°. Now saw through the entire log. Then break the parts apart so that you get four quarters.

When sawing the boards, turn the piece between each cut. Sometimes it can be easier to saw from below. Then you can keep the log beds at the same height all the time.

Many of us here at LOGOSOL have extensive sawing experience. If you, as a new LOGOSOL user, have any questions, you are most welcome to call us. We will be happy to give you some good advice.

WOOD - A LIVING MATERIAL

Wood is a fantastic material in many ways. We have tens of thousands of customers around the world who build their dreams from wood!

Advantages of wood:

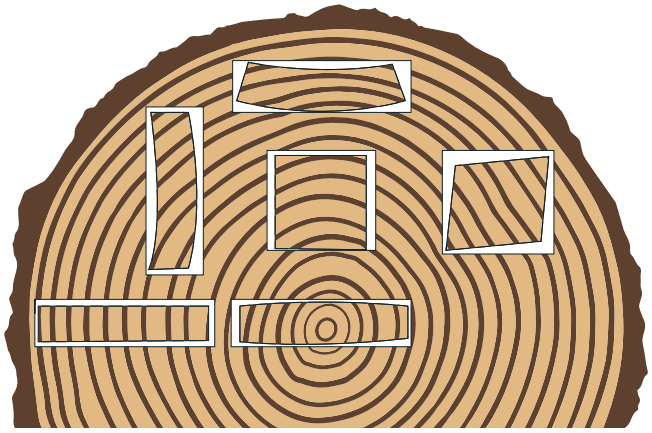
- Durable– wood buildings last many generations.
- Malleable – a fantastic material to work with.
- Relatively inexpensive.
- Environmentally friendly and energy efficient. In addition, by sawing you do a good deed when you take care of the forest and saw wood yourself.
- Stylish – wooden constructions and wooden interiors are always trendy!

WOOD - A LIVING MATERIAL

Wood is also a living material. A freshly cut tree contains large amounts of water, especially in the sapwood of the tree. You can also feel it on boards that are sawn on the outer edge of the log.

This causes the wood to shrink and change shape as it dries.

How much the wood shrinks varies between different types of wood. In a log, the wood dries in different ways depending on where in the log the wood is taken out, see adjacent figure.



Tension in the lumber

There is always tension in wood that is drying. Most of the time you don't notice this, especially not when you are sawing freshly cut wood where the drying process has not started. There are times when trees contain more tension, e.g. in trees that have grown on a slope or next to a forest edge where the tree has developed more branches on one side. In this case, the tree has compensated for this and created more wood fibers on one side.

Regardless of which sawing method is used, tension in the wood means problems both during the sawing itself and in the subsequent drying and use of the wood.

How to detect tension in the wood:

As you retract the chainsaw after your last cut, watch the blade run along the freshly cut surface. If there is a gap or if it touches the log, there are tensions in the wood.

Avoid effects of tension in the wood:

- Saw freshly cut logs.
- Saw the log successively from all sides.
- Saw logs as short as possible if the wood has tension.
- If you come across a log with extremely high tensions, you will get bad crooked and twisted planks no matter how you approach it. Logs with those characteristics are fortunately few and far between.

PLANE BEAMS FOR LOG HOUSE BUILDING

Many of our customers build log houses with their chain sawmill. With a log moulder, it is easy to mill finished log blocks.

Building a log cabin, which will last several hundred years and which will be a source of great joy for generations, is an extremely rewarding construction project.

LOGOSOL can help you find a log cabin building course where you can learn how to mill and build a house in a week.
Contact LOGOSOL or go to the website for more information.

LOGOSOL log moulder
-the best choice!

- Thanks to our smart stoppers, you can very quickly switch between different steel settings, when you e.g. mill the top and bottom of the log.
- We have a wide range of steel profiles. Log house steel, flat steel, profiles for round corners and hundreds of other profiles are suitable for LOGOSOL's log moulders. See our excellent product catalog for the full selection and inspiration.
- Easy to connect chip extractor.
- Lightweight and stable construction.
- Great value for the price.
- Available for both electric and gasoline operation.
- The market´s most sold log moulder.

ROUND SAWING

With the round sawing attachment, you can saw up to 16 edged blocks. The round saw attachment is a fantastic accessory that opens up new possibilities, where only your imagination sets the limits.
You can use the round saw attachment both together with your electric saw, chainsaw and log moulder.

Round sawn blocks can be used for many different constructions

- Log houses
- Poles (e.g. flagpole)
- Conical posts
- Ridge beam in log house
  Outdoor and BBQ furniture
- Equestrian obstacles
- Fences

SAWING XL LOGS

LOGOSOL's chainsaw is built with heavily anodized aluminum, a material that gives it its fantastic properties. In addition to the fact that it is eternally rust-free and can be stored outdoors, it is so strong and torsionally rigid that it can handle really large logs.

The F2+ chainsaw mill is approved for weights up to 500 kilos per log shelf and we have many customers who saw over-sized logs with their sawmill.

SAW EXTRA LONG

There is no limit to how far you can cut with the F2+ sawmills.

You can buy extensions in 0.5 m or 1 m and extend the sawmill so that it is optimal for your needs.

Extend your chain sawmill!

- 0.5 meters at each end.
- 1 meter with extra log shelf.

Extreme Sawing

We have many examples of how our customers sawed with their chain sawmill to solve extreme challenges.

- Extremely long logs with many chain sawmills connected in a row.
- The world record in the longest plank was sawn on a chain sawmill from LOGOSOL and today's world record is over 40 meters.
- Extremely heavy logs, weighing several tons, with reinforced log shelves.
- Sawing of other materials such as plastic and paper.
- Tapered logs and special dimensions to fit unique designs.

FINE FURNITURE MATERIAL

All around where you live, there are pieces of wood waiting to be sawn. In cities, park trees are thrown into the landfill and fruit trees are felled in someone's backyard to make firewood.
It is a shame that these fantastic hardwoods should perish.
In the forest there are juniper bushes, maple, willow, aspen and other types of wood that many would classify as too soft, but which wood carvers value highly.
Our sawmills can handle logs down to 1 m long. This opens up new opportunities for carpenters to saw shorter fine carpentry pieces.

By shortening the saw length, you get a log bed that is very robust and easy to handle for the preparation of fine carpentry material and special sawing of various kinds. It is so short that it can be set up indoors, and lightweight enough that it can be easily taken outside to where the log is.

Everything from blocks at 0.5 m to millimeter-thin veneer for round boxes can be produced. In addition, LOGOSOL's chain sawmills are easy to assemble and disassemble if you e.g. want to transport it in the trunk of a car.

BUILD WITH FRESHLY SAWN WOOD

If you have the chance to build with freshly sawn timber, you should do it. This saves you a lot of time.
Freshly sawn planks and boards are often exactly straight and when fixed in a structure, they will not change shape. Piers, external stairs and fences are obvious uses for freshly sawn timber. Uninsulated buildings and even large machine halls can be advantageously built with wood that you take directly from the sawmill.

If the building is to be insulated, you must wait until the construction parts have dried. In the spring, this only takes a few days in good weather. LOGOSOL has contact with many customers who use freshly sawn timber. According to their experience and ours, it is extremely rare that the shrinkage of the wood creates any problems at all. The main thing is not to build if the wood doesn't get access to fresh air while drying.

Some constructions can therefore be built from freshly sawn timber. Just make sure to consider shrinkage by approximately 5% in width. The wood also shrinks approx. 0.3% along the length, but you can usually ignore this. However, be careful driving in two nails next to each other near the end of boards, e.g. paneling boards. They can then split in half. Rather, drive in one nail first, and wait for the other one until the wood has dried. To avoid rot damage, you should not build with raw wood where air has difficulty circulating.
When building a log house you should build with fresh lumber. It is then an advantage that the wall becomes heavy and that the logs are still malleable. so that they are pressed into each other.

Projects for freshly sawn timber

- Uninsulated buildings or buildings that are insulated later when the wood has fully dried.
- Log houses.
- Jetties and piers.
- Outdoor wooden constructions, e.g. stairs and fences.

MEASURE MOISTURE CONTENT

The amount of moisture in a material can be described by its moisture ratio. The moisture ratio is the ratio between the weight of water in a material in relation to the weight of dry material. The moisture content can be determined if you weigh a piece of board and then dry it completely and weigh it again.

Moisture meter

LOGOSOL sells a moisture meter that measures the electrical resistance or resistance between two metal pins pushed into the wood. This type of meter gives a direct result. The measurement is not completely accurate but gives a good indication.

DRYING FOR BUILDING MATERIAL

The most common way to dry self-sawn wood is to air-dry the wood outdoors (preferably under a roof) and let it lie outside for a few weeks in spring. A basic rule is that wood that is to be air-dried should be spread out (lay ribs between each layer of wood) for drying before midsummer.

When the wood is structurally dry, approximately 18% moisture, it can be used directly even in building constructions that are insulated. It is also easy to plane at this level. When the wood is dry, you can store it indoors.

DRYING FOR CARPENTRY

If the wood is to be used for finer carpentry, it should be stored in a heated room for another 3-4 weeks or dried in a wood dryer to get perfect results.

When the wood is carpentry dry (8-10% moisture), you can use it in furniture carpentry and other carpentry. If you want to dry your wood quickly, we at LOGOSOL will help you find the right model of dryer. If you are planning your sawing, you should dry the boards outdoors to 18% and then continue drying indoors.

Most hobby carpenters let the wood dry completely at room temperature, but it takes many months.

The coarser the wood, the longer the time. Thin boards become carpentry dry in a few weeks in a heated and ventilated room.

DRY IN A WOOD DRYER

Another method is to dry the wood in a wood dryer. LOGOSOL's wood drying unit, WDU, gives you energy-efficient drying and a perfect result. With it, you dry pine wood until it is completely dry in a week.

The result is furniture-dried wood with fewer cracks and less warping compared to air-dried wood. But the biggest difference is time. It varies depending on the type of wood and the desired moisture content. As an example, you can dry softwood from 17 percent to furniture dry in a week. You dry freshly sawn spruce until it is planer dry in 7-10 days. By building the cabinet yourself, the investment cost is low, compared to other solutions.

STORING LUMBER

Your sawn lumber can mostly be stored outdoors if it is protected from sun, rain, dirt and soil moisture. Lumber that is to be used visibly indoors, however, should be stored in an airy and dry space with an even and relatively low temperature, for example in a garage.

A cab heater on low power can be used. Stack the lumber with battens in between and tighten down the lumber so that it has no possibility of buckling or twisting. It is perfectly fine to use ratchet straps.

Shimming - tips!

- A common dimension of shims are 25 x 38 millimeters..
- The shims should be dry to avoid fungal attack between shim and wood.
- It is important that the shims are laid all the way to the ends of the wood to avoid cracking.
- The shims must be laid right on top of each other in each layer so that the pressure is transferred from shim to shim all the way down to the bottom layer. Careless stacking, risks large deformations of the dried wood.
- Put the core side up when stacking to get a more stable lumber package.
- Place weights on top of the package to prevent deformation.
- Elevate the stack from the ground, approx. 20-30 cm, so that the air can easily flow under.

Test - do you need a dryer?

Wood worker and carpenter

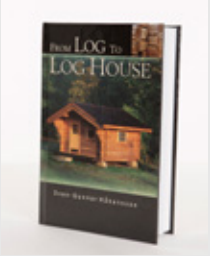
- Do you need wood dry enough for furniture making?
- Do you want to prevent your fine carpentry from cracking or breaking after they are finished?
- Do you have the opportunity to get hold of hard wood to use for fine carpentry.

Small scale sawer

- Do your customers want lumber below 18% moisture content?
- Want shorter delivery times?
- Do you want your wood to have a more even moisture ratio?
- Want tension and crack-free wood?

Tips from From Log to Log House

In the latest edition of the book From Log to Log House, (Från Stock Till Stuga) the author Sven-Gunnar Håkansson describes an interesting way of arranging a board pile for drying.



- Place planks edgeways above the row of shims.
- Place a layer of butt cut offs on top of the planks (cut side up).
- Place plastic wrap on top of the butt cuts.
- Place more butt cuts on top.

INSPIRATION - BUILD A BENCH

From log to finished bench takes about an hour. Use a chain sawmill, tape measure, carpenter square, hammer and nails - and don't be unnecessarily careful, it will turn out really great!

Cutting list

Board (mitred at an angle) 2"7 (51x178 mm):
2 pcs 185 cm, 2 pcs 35 cm.

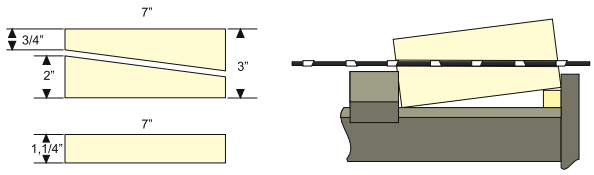
1,1/4"7 (32x178mm):
1 pc 140 cm, 4 pcs 35 cm.

Build instruction

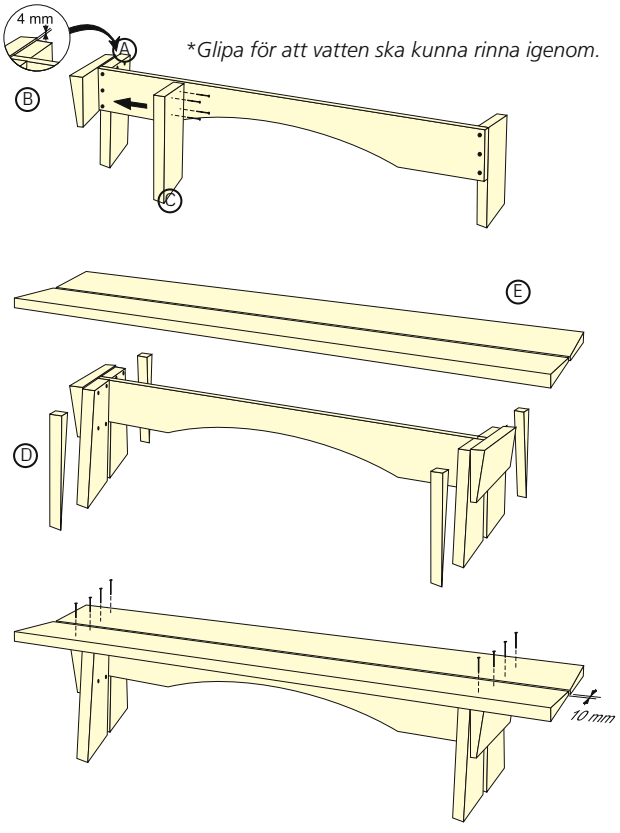
Draw an arc in the 140 cm long board (eg by putting a pencil in a 150 cm long string and attaching the other end of the string 142 cm from the center of the board.) Let the arc go in just under half the width of the board. Saw along the line with a chainsaw, band saw or jigsaw.

Nail two of the legs (A) to the arc board. Make sure the arc board does not protrude beyond the leg board.
Mark the center of the short mitred boards (B) and nail them to the legs, in the middle of the arc board. Let the mitred piece stick up 3-4 mm* above the leg board and arc board.
Nail the other two legs (C).
Cut the leg boards with the chainsaw in a straight line (D) between the upper corners of the short slanted boards and the lower corners of the legs.
Place the long mitred boards (E) and nail them to the short mitred boards at 1 cm intervals.

Finally, carve off all rough edges with a sharp knife.



To make the two mitred boards on the sawmill:
Saw a 7"3 and cut it 221 cm long. Split this diagonally by placing a 1" high strip under the inside edge of the board. The sawmill should be at 2". In addition to these specially sawn boards, a 1.1/4" 7 is needed which is 285 cm.



**Glipa för att vatten ska kunna rinna igenom.*

MORE INFORMATION

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Everything you need to know about caring for your guide bars and chains for perfect results.

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From Log to Log House

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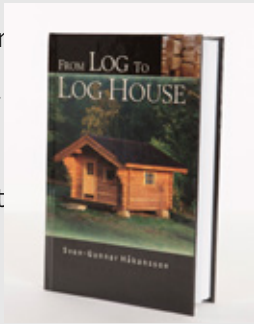
A great read full of great tips.
Available at gransforsus.com



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