

**LOGOSOL**



**LOGOSOL LAKS**

**Traditional Sawing Using New Technology**



# LOGOSOL-LAKS FRAME SAW

✓ Maximum yield of timber every time due to high dimensional accuracy and minimal material loss in the kerf.

✓ Easy to handle. One person can manage to produce up to three cubic metres of sawn timber/h.

✓ The teeth of the saw blades are of Stellite, which gives the saw blades long service life.

✓ Straight kerfs and extremely even sawn surface.

✓ Sturdy design with a large number of standard components gives low maintenance and service costs.

✓ Low energy consumption.

✓ 20 years of fine-tuning and refining the product.

✓ A blade grinder always comes with the machine.

✓ A smart system ensures quick replacement of saw blades and that the blades come in exact position.

✓ Low noise level; sounds like a chugging steam train!

✓ A good investment both in the short and the long run. Easy to install and high-producing from the first moment.

✓ Get started quickly! The machine will be producing within 6 hours.

## ACCESSORIES THAT ARE INCLUDED WHEN BUYING A FRAME SAW:

✓ Installation ✓ Training ✓ Grinding machine



Watch video about the  
LAKS Frame Saw on  
[www.logosol.com](http://www.logosol.com)

# Capacity and technical data

## TECHNICAL DATA: MODEL 330

Dimensional accuracy	+/- 0.5 mm (1/32")
Feed speed	0.6-1.0 m/min. (2-3 ft/min.)
Max. number of saw blades	12
Min. distance between saw blades	10 mm (7/16")
Max. production/hour	2.3 m3 (81 cubic feet) *
Max. cant height (Frame movement)	180 mm (7 1/8")
Max. cant width	330 mm
Weight	750 kg (1654 lbs)
Durability of saw blades (before grinding)	8-10 hours
Machine length	6.6 m (21.6 ft)
Machine width	1.2 m (3.9 ft)
Machine height	1.65 m (5.4 ft)
Electric motor	7.5 kW (10 hp)
Connection	16 A
Grinding machine for saw blades	Included

## TECHNICAL DATA: MODEL 500

Dimensional accuracy	+/- 0.5 mm (1/32")
Feed speed	0.5/0.6/0.7 m/min. (1.6/2.0/2.3 ft/min.)
Max. number of saw blades	20
Min. distance between saw blades	16 mm (11/16")
Max. production/hour	3.4 m3 (120 cubic feet) *
Max. cant height (Frame movement)	260 mm (10 1/4")
Max. cant width	490 mm
Weight	1100 kg (2425 lbs)
Durability of saw blades (before grinding)	8-10 hours
Machine length	9.0 m (29.5 ft)
Machine width	1.2 m (3.9 ft)
Machine height	2.2 m (7.2 ft)
Electric motor	11,0 kW (15 hp)
Connection	25 A
Grinding machine for saw blades	Included

\*) Example of capacity: If the frame saw is equipped with 12 sawblades and you are going to produce 25 mm (1") thick boards from a 300 mm (12") wide cant, it is possible to place two cants, of which one is 100 mm (4") and the other 50 mm (2") high, on top of each other. This way you get the capacity to cut almost 1000 meter/hour (3300 linear feet) per hour.



*Specially designed carbide tipped blades give one to two days of full production before sharpening.*



*Designed, manufactured and assembled in Sweden means excellent quality and a very reliable sawmill.*



*The frame sawing technique gives a very exact and accurate result. Significantly better than with a professional circular sawmill.*

# Satisfied customers in over 20 countries



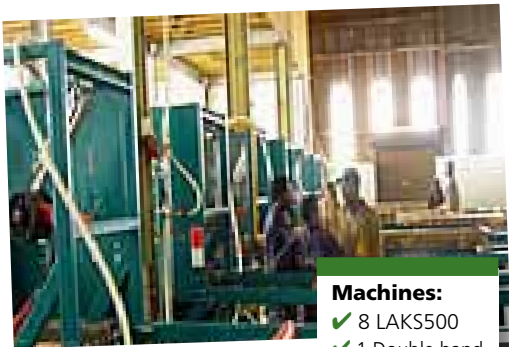
## Machines:

- ✓ Sawmill
- ✓ LAKS
- ✓ Wood Kilns

*“I don't have to supervise the sawing process, but can work with other things. The surfaces are fine and the measurements perfect,” says Marc Petitroulet, who is looking for other automatic equipment to produce as much as possible without having to employ someone.”*

## LESCHARAINES, FRANKRIKE

Three years ago, Marc Petitroulet invested in a Logosol-LAKS Frame Saw, the largest model 500 Industry. The investment was an alternative to employing someone.



## Machines:

- ✓ 8 LAKS500
- ✓ 1 Double band sawmill from South Africa

## TANWAT, TANZANIA

Sawmill with eight LAKS Frame Saws 500 that produces approx. 30 000 cubic metres sawn timber per year. The plant paid off in eight months.



## Machines:

- ✓ The Logosol Sawmill M5&M7
- ✓ LÅKS500
- ✓ MH410 and PH260

## OSBY, SWEDEN

Tord Bramwehl, Osby, Sweden, is a happy user of the LAKS Frame Saw 500 and LAKS Twin Saw.



## Machines:

- ✓ LAKS500
- ✓ PH260

## NYBY, SWEDEN

Stig Johansson in Nyby, Sweden, manufactures shims that are used for stacking goods on multiple levels on Euro pallets.

**Do you want to watch a demo of the LOGOSOL-LAKS Frame Saw or contact a reference customer? Get in touch with us!**

# Production capacity calculation

LOGOSOL LAKS Frame Saw	500	500	Your own calculation
Production of:	2"6	1"5	
Cant width in mm	450	500	
Cant height in mm	156	130	
Dimensions in mm Specify in mm what dimensions you will cut + 1 mm drying allowance per inch and 2.3 mm for the kerf.	54	28	
Amount of saw blades minus 2 outer edges	6	15	
Fed metre per minute	0,60	0,8	
Linear metres per minute Amount of saw blades x feed rate x minutes	3,60	12	
Linear metres per hour Linear metres/min. x 60 min	216	720	
Linear metres per day. Linear metres/hour x 8 h	1728	5760	
Production loss Loss in % a day	20	20	
Linear metres per day, 2 Linear metres/day minus loss	1382,40	46	
Euros per linear metre	2,0€	0,8€	
Euros per day Linear metres/day x EUR/linear metre	3456€	4608€	
Euros per week EUR linear metre/day x 5 days	17280€	23040€	
Euros per month EUR linear metre/day x 20 days	69120€	92160€	

*/// The great advantage with the frame saw from LOGOSOL is its high production capacity. Thanks to the automatic cant feed, I can produce three to four cubic metres sawn boards per hour. The timber yield is 80-85%, and together with the low operating costs this contributes to the good overall economy"*

## KNÄRED, SWEDEN

Anders Assarsson at Svenshult  
Sawmill in Knäred, Sweden



# LOGOSOL-LAKS FRAME SAW

# Traditional Sawing Using New Technology

The efficiency and the operational reliability of Logosol Laks frame saw make it belong in a class by itself. For 20 years the frame saw has become more and more improved, not by adding more technology and more smart functions, but by making small adjustments of the frame angle, the flywheel and the mechanical feeding. This has rather led to the machine becoming more genuine.

**T**he heart in the frame saw is the frame with up to twenty sawblades that are pulled up and down with a balanced flywheel as a counterweight. The frame, the flywheel and the mechanical feeding work in perfect harmony, and this can be observed when it is sawing. The sound level is low and reminds of a puffing steam locomotive.

## **Timber cants are the raw material**

Many small-scale sawyers who today use a circular sawmill, a band sawmill or a Logosol Sawmill can reach industrial capacity with the help of the Logosol-Laks frame saw. The logs should be sawn on two sides before they are fed into the Logosol-Laks frame saw so that the lumber is edged before it is cut into boards. This gives a controlled process and minimal handling of the lumber. Without ado the cants are turned into sawn products.

## **Pleasant on the working site**

The sawmill work site is neat and tidy. What little sawdust that comes from the thin blades, is transported away by a relatively small sawdust extractor. An additional nozzle vacuums

the top side of the cant so that the boards become completely clean after they have been sawn.

## **The frame saw is seldom the bottleneck**

The Logosol-Laks frame saw relentlessly works away, without interruption or trouble, hour after hour. To keep it working, the sawn boards have to be carried away, and a new cant has to be sawn within only a few minutes. In practice, the Logosol-Laks frame saw is, despite the low feed rate, in almost every case the quickest on the working site.

## **The blades are replaced quickly**

After 8-10 hours of operation, or after about 100 logs, the tungsten-carbide toothed sawblades have to be removed from the frame and then sharpened with the sharpening machine that always comes with the Logosol Laks frame saw. The blades are mounted in fixed positions in a comb-shaped holder. This is an excellent system, which makes replacing blades a quick operation and ensures that the blades always come in exactly correct position. The entire procedure takes less than 20 minutes.

## **Economical all over the world**

All Logosol-Laks are powered by an 11 kW (15 hp) electric three-phase motor. The model 330 can also manage on 7.5 kW (10 hp). If you do not have access to electricity, all the models can be run by a 17 kW (23 hp), environmentally friendly combustion engine. Here we have maybe the world's highest capacity per used energy mass; around 500 meters/litre (6300 linear feet/gallon) of fuel or, with electricity, 100 meters/kWh (328 linear feet/kWh). That this is environmentally friendly is obvious. In addition, it does not require any extraordinary installations or fuses. For some people this is just a matter of saving money, but in many places around the world it is a prerequisite.

## **Invest in a profitable frame saw**

Overall, this is a good investment both in the short and the long run. The Logosol-Laks frame saw is cheap to install and high producing from the first moment. Due to its sturdy design and smooth operation, it does not offer many surprises. The Logosol-Laks frame saw will work reliably and keep its value for decades. It always feels safe with well-tried technology.

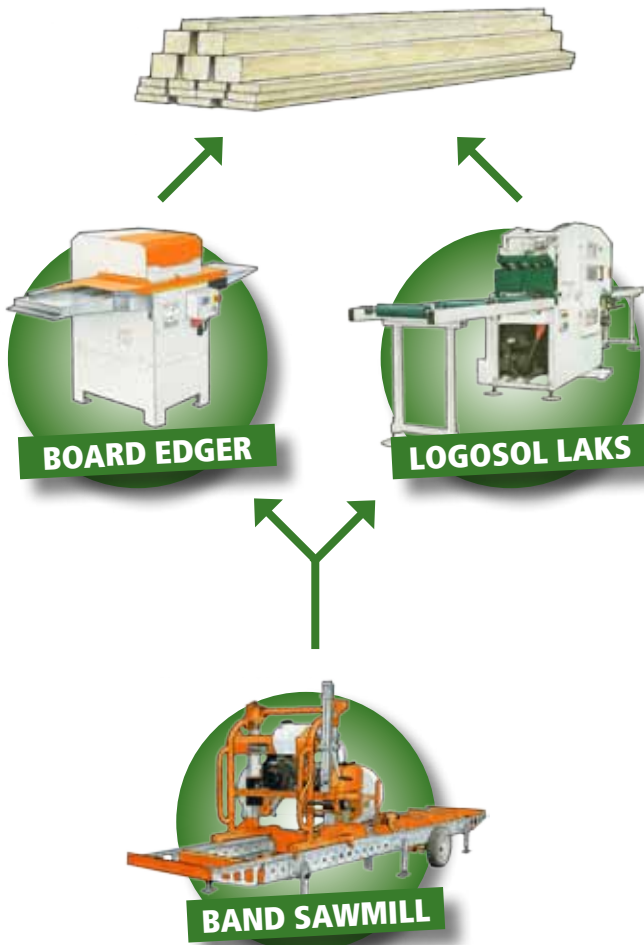


# COMBINE TO SU

Plan your setup with us to maximize the return of your investment

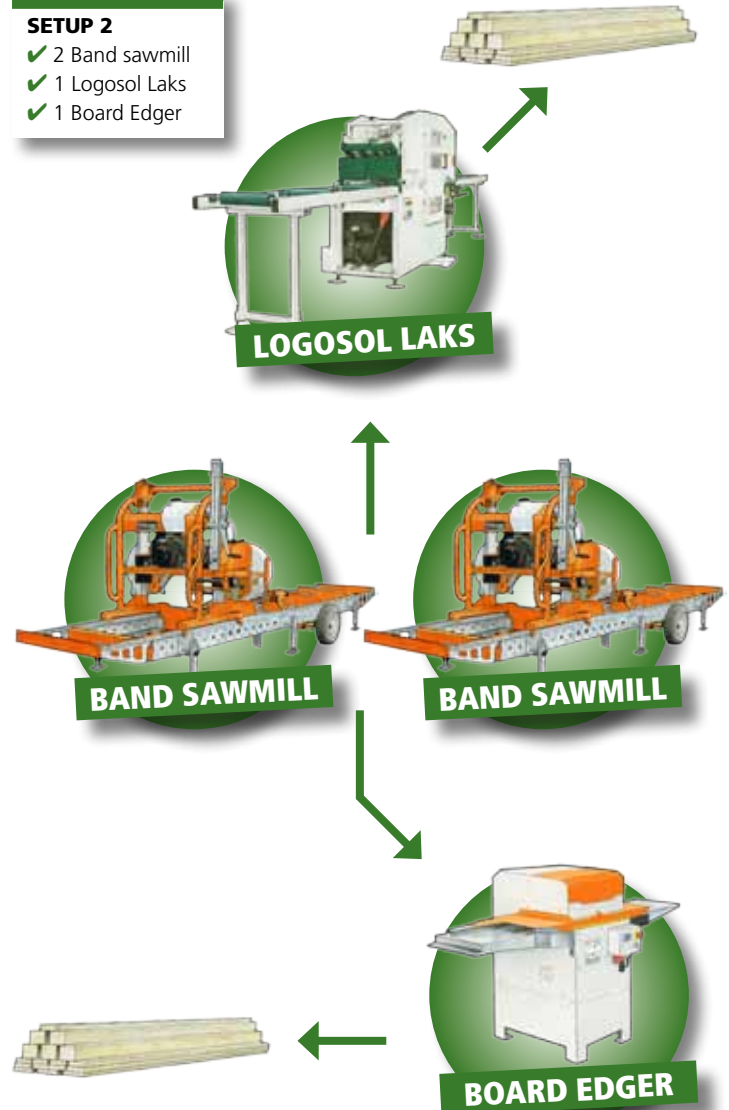
## SETUP 1

- ✓ 1 Band sawmill
- ✓ 1 Logosol Laks
- ✓ 1 Board Edger



## SETUP 2

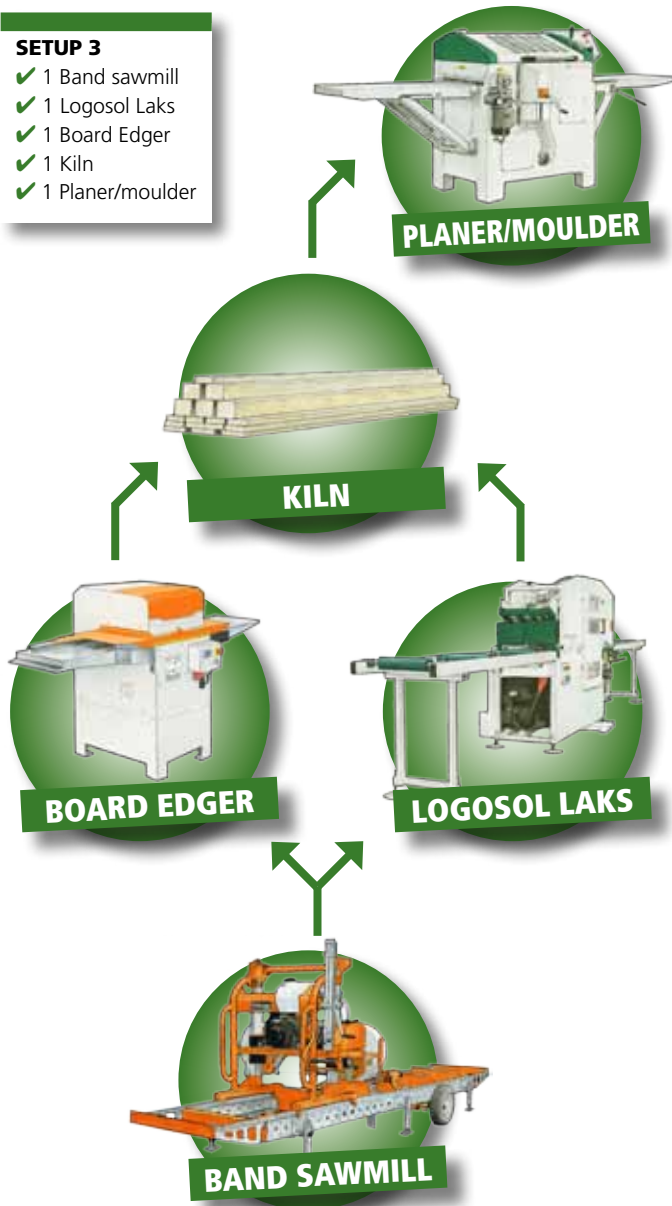
- ✓ 2 Band sawmill
- ✓ 1 Logosol Laks
- ✓ 1 Board Edger



# IT YOUR NEEDS!

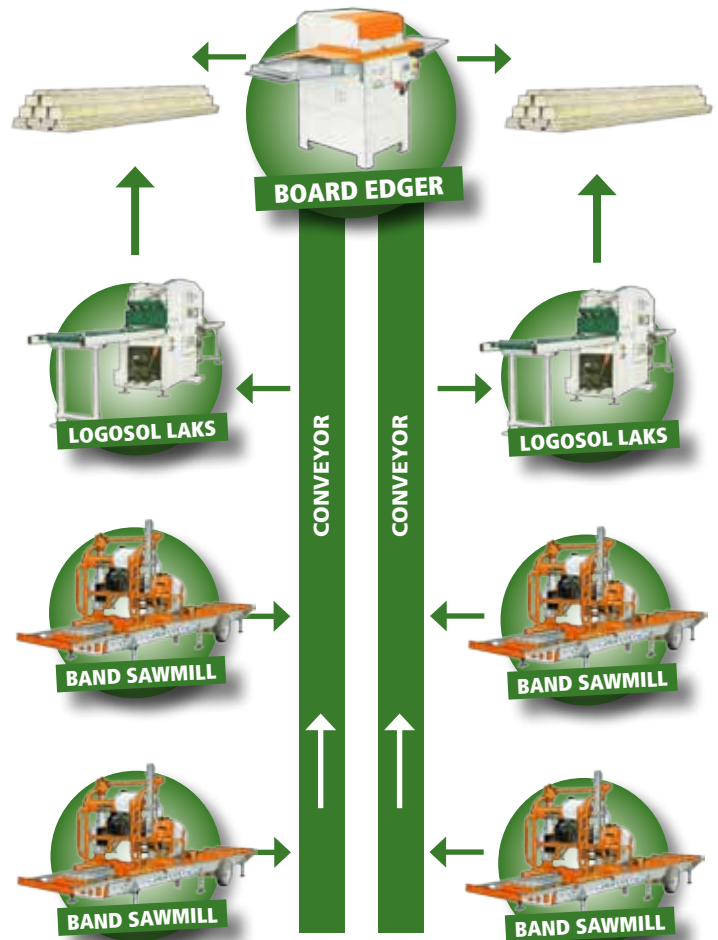
## SETUP 3

- ✓ 1 Band sawmill
- ✓ 1 Logosol Laks
- ✓ 1 Board Edger
- ✓ 1 Kiln
- ✓ 1 Planer/moulder



## SETUP 4

- ✓ 4 Band sawmill
- ✓ 2 Logosol Laks
- ✓ 1 Board Edger
- ✓ 2 Conveyor





# Small Sawmills and Fair Trade Save the World

Today, a lot of money is invested in afforestation that will compensate for emissions of carbon dioxide. But often the future is forgotten. How is the forest to be taken care of, how will the actions be financed, and how should all these trees be used in the future?

“What is really needed is two things: a more fair trade in forest products and system solutions that enable a more efficient further refinement of the forest products,” says Klas Bengtsson, CEO at the consultancy SSC Forestry, which works with sustainable forestry all over the world.

Many of the projects show that small-scale technology can contribute to the solution for the three major global issues: poverty, the climate threat, and the threat to the world's forests.

“Usually, planting climate forests as a response to the climate threat doesn't lead to the desired result, even though the original inten-

tion was good. Especially if it is done in the form of fast-growing monocultures with uncertain ecological, social and economic value,” says Klas Bengtsson.

## Swedish technical solution

The vision is to build profitable and fair production systems from the small-scale forestry in the south to the market in the north. A crucial key to success is that there is small-scale technology that can deliver high quality to low investment costs.

“Here, the Swedish frame saw Logosol-Laks has made a great contribution,” Klas Bengtsson states.

An interesting example can be taken from Tanzania. The problem was a large pine forest that had been planted without any thought of the future. The plantation was in a miserable condition, but just as the owners were thinking of burning it down, SSC Forestry came with a proposal.

## Environmental certification according to FSC

The first step was to get the entire forest holding environmentally certificated in accordance with the Forest Stewardship Council (FSC). Export customers for construction timber were found, and a production line was built up.



"The quality of the end product has to be very high. In this case we were competing with Swedish and Finnish sawmills, and we definitely didn't want to be a 'budget alternative'", Klas Bengtsson explains.

Two frame saws quickly became eight frame saws of the make Logosol-Laks and a second-hand band sawmill from South Africa to make the cants. The industrial band sawmill with double saw blades has to be run in multiple shifts to supply the Swedish frame saws with timber.

### Competitive technology

The frame saws were installed side by side sharing the same roller conveyor system. The advantage of this was that the logs could easily be moved between the saw units, and that one malfunctioning machine could not stop the entire production. The plant was an immediate success. The entire investment paid off in eight months. With a yearly production of 25 000 cubic metres the sawmill quickly became one of the most profitable in Eastern Africa.

Nowadays, SSC Forestry runs similar but smaller projects, one of them in Chile. Once again it is the Logosol-Laks that is at the centre of the project.

"We haven't found another solution that gives the same quality to the same low investment and operation costs per produced cubic metre," Klas Bengtsson states.

### Give trees a value

Efficient small-scale industrial technology is a prerequisite for a sound development, but it also takes structural changes. In Klas Bengtsson's future aid projects will not be necessary for getting trees to be planted and taken care of in Africa. The trees will be planted and processed by the farmers themselves since they have been given what is required to run a profitable forestry business.

Certification is an important key to achieve this. Today, there is a great interest in Fair Trade Wood products from small-scale producers. Due to this, the export market can be developed into a significant complement to the local market, where the prices the small-scale producers can set on their products often are very low.

"We have to build efficient and fair systems where trees have a value for those who live there. Then the small-scale farmers will want to plant, take care of and develop their own forest," says Klas Bengtsson.



#### Machines:

- ✓ Circular sawmill
- ✓ LAKS 500
- ✓ PH260

*"My customers are both builders and private buyers. They want the right type of timber and are not content with what the DIY stores offer," says Anders Assarsson.*

### SVENSHULT, SWEDEN

A new saw house is built at Svenshult's Sawmill, and in there a circular sawmill of the largest model is getting installed. The circular sawmill will automatically feed the Logosol-LAKS frame saw with cants. Some of the timber goes directly to the planer/moulder.



#### Machines:

- ✓ Logosol sawmill
- ✓ LAKS 500
- ✓ PH260

*"I have used the frame saw and it works incredibly well. The capacity of this frame saw is impressive. In addition, it gives a very fine sawn surface."*

### NORWAY

Olav Sve has built an efficient production line and believes in a future as a small-scale wood processor. He bought his first planer/moulder in 2004. He already had a sawmill in his business.



## PAYMENT METHOD

### Payment in advance via T/T (wire transfer) to our account.

When you have placed your order you will receive a confirmation of your purchase and a notice of delivery time. You can then pay the money into our account. The money is reserved and will be deducted from your account when the order has been shipped from LOGOSOL.

### Payment via L/C (Letter of credit).

Please contact us for more information.

## THIS IS HOW YOU ORDER

Please find your local distributor below in this folder, at [www.logosol.com](http://www.logosol.com) or call Logosol Sweden +46 (0)611 182 85. Webshops available in selected markets, see [www.logosol.com](http://www.logosol.com).

Do not hesitate to ask us for advice on how to utilize your sawmills in the optimal way. We have more than 10 years of experience of developing and producing Låks Framesaws. The sawmills are delivered to all continents which has given us a great knowledge about saw techniques in all kind of circumstances and conditions.

***You are warmly welcome to contact us!***

**+ 46 (0)611 182 85 • [www.logosol.com](http://www.logosol.com)**

### TWO-YEAR WARRANTY

Doing business with Logosol is safe. We provide you a two-year warranty on our machines. The warranty covers manufacturing defects and problems that have occurred during normal use of the machines, with the exception of consumable items such as belts, guide bars and chains.



### 2 MONTHS MONEY BACK GUARANTEE

Logosol gives you a two months money back guarantee on all machines. This means that when you have paid for the machine, you have two months to decide whether the machine suits you. If you want to return the machine, you only pay for the return freight. Cutting equipment and other consumable items are not included in the money back guarantee.



### SERVICE ALL OVER THE WORLD

The distributor in your country provides service on the products. At our headquarters in Sweden we are prepared to offer Logosol customers our more than 20 years of experience in designing and working directly with Logosol equipment. We will give the consultation in English by phone or e-mail. Tel: +46 611 18285 e-mail: [info@logosol.se](mailto:info@logosol.se)

