



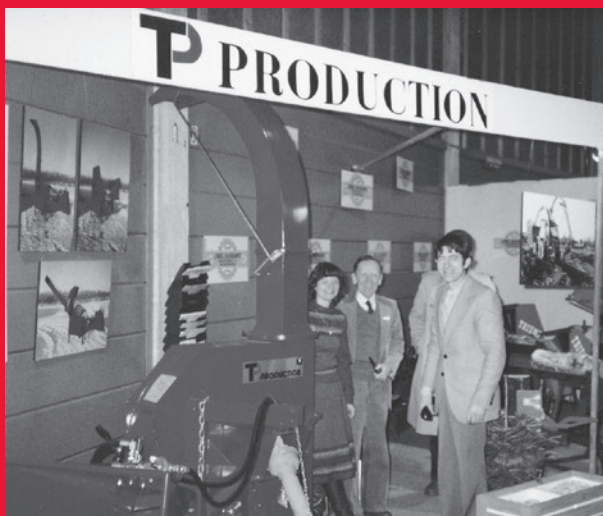
FROM ORIGINAL CONCEPT
TO
INTERNATIONAL
SUCCESS

Linddana - the story of chipping

1980



1982



1990



2015



A Danish company with deep roots

The story of Linddana starts with a dream about owning a forest and a brochure which landed on Svend Lind's desk. The brochure was advertising for Danish companies with aspirations for developing a wood chipper for forest management.

In 1978, Svend Lind purchased 3.5 hectares of woodland to use in his spare time for hunting and picnicking with family and friends. At the time he was the co-owner of a Danish forklift truck business based in central Jutland and he was responsible for production and development. Svend Lind was originally educated as a smith and machinist and he was passionately interested in machines and their design and development.



*The Lind family
- photographed
on 1 August 1980*

Oil crisis - wood becomes a new energy source

Svend Lind's woodland was in dire need of some clearing and thinning, but it seemed a shame to let all the dead wood and undergrowth go to waste. "Oil prices had sky-rocketed during the oil crisis in the 1970s. This focussed everyone's minds on reducing our dependence on oil and exploiting alternative resources, like waste wood and wind power," explains Svend Lind.

He saw the potential in turning waste wood and waste branches in the forests into wood chip and using that as a new energy source. However, he struggled to find a wood chipper that was big enough and strong enough to do the task. So he started to learn about the engineering behind the hydraulics, rollers and blades. He completed his first rough sketches for the design for a new kind of wood chipper and seriously considered starting his own company to make the wood chipper.

Strong partnership

Svend Lind was thinking about how to take the next step, when the brochure from the Danish Institute of Forestry Technology landed on his desk. Reading the brochure, Svend learned that the institute believed there was a huge potential in the production of wood chip as part of forest management and the institute was looking for Danish companies that could develop a powerful wood chipper for the purpose.



*Svend and Inge Lind,
circa 2005*

Inge was involved in the company right from the very start. As Svend Lind puts it: "It was a huge advantage that there was always two of us and being able to talk things through."

"That clinched it for me. I thought if my idea for manufacturing wood chippers was going to become a reality, it was now or never," says Svend Lind.

Things moved fast after that. He contacted the institute, which immediately acted as a willing adviser. Working in close collaboration with the institute, Svend Lind defined the overall technical requirements for the wood chipper and set up a business plan, which from the very beginning focused on exports. At the same time, Svend Lind found suitable production facilities in the local area. He purchased Thyregod Production, which had recently been declared bankrupt and had an area of 500 m². The company had manufactured

wood-burning stoves made from sheet iron.

"It was the ideal place with the perfect size for the job. My strategy was to manufacture wood-burning stoves and wood chippers in parallel. That way I could finance the development of the wood chippers through the sale of wood-burning stoves. I succeeded in both," says Svend Lind.



*Thyregod brochure
The new company
still made wood-
burning stoves, an
important initial
source of financing.
This side of the
business was not sold
until 1993.*

1974

First oil crisis:
Focus on alternative
sources of energy

1978

Svend Lind purchases
woodland for hunting
and leisure

1979

Second oil crisis

1980

Tidying up the woodland
leads to the idea of
a professional wood
chipper

Purchase of
Thyregod
Production -
four employees

Development of wood chipper
in close collaboration with the
Danish Institute of Forestry
Technology

First prototype, first sale

During the course of 1981 Svend Lind was ready to present the first prototype after many attempts and tests: A wood chipper for forestry with the capacity to chip wood up to 25 cm in diameter. The wood chipper was given the type designation 'TP' based on the initials of Thyregod Production. This 'brand name' for the company's wood chippers is used to this very day.



First prototype

The TP wood chippers' strong design has been a deliberate choice from the start.

"Luck was with us right from the start. A big storm had caused a huge amount of damage in the large Danish forest, Rold Forest. The forestry managers saw the potential in turning all of the fallen trees and waste wood into wood chip and using this as an energy source in the new power stations that were being built all around the country," explains Svend Lind.

Subsequently, Thyregod Production's first order came from Rold Forest: Eight TP Wood Chippers with a capacity to chip wood up to 18 cm in diameter, i.e. slightly smaller than the prototype. "Our wood chippers at Rold Forest functioned really well and provided us with valuable experience, which we used to enhance and

improve the next generation of machines," says Svend Lind.

Both Svend Lind and the the Danish Institute of Forestry Technology had been right: The forest industry in Denmark and abroad was ready to start investing in wood chip production. Branches and dead wood would no longer be viewed as waste but as a valuable source of energy.

The timing could not have been better for TP Wood Chippers and for making a breakthrough in the market.

Wood chip was the new "green oil".

"From the very beginning, the development of TP Wood Chippers has been based on the same simple foundation: We focus on improving the individual components and they way they work."

Svend Lind, founder and owner of Linddana.

1981

First wood chipper prototype ready for testing:

Wood chipper with the capacity to chip wood up to 25 cm in diameter

Massive storm damage in Rold Forest:

First order for eight wood chippers (18 cm diameter)

Wood chippers designated "TP":
Named after Thyregod Production

Parallel production of wood-burning stoves and wood chippers

From Elmia Wood to European breakthrough

With Svend Lind in charge, Thyregod Production immediately targeted the European market. Their first experiences were gained through the sale of wood-burning stoves. The company collaborated with two other companies and hired an export consultant and received export support from the Danish government.

"It turned out to be a really effective policy. The export consultant was enthusiastic about the project and established a collaboration with DanScan in Hanover. This boosted sales of our wood-burning stoves in the German market and ensured financing from the start-up with the wood chippers," says Svend Lind.

Shortly after this, the same export model was used with the wood chippers. Large forested areas in countries like Germany, France and Switzerland offered huge potential for wood chip production and the key was to demonstrate TP Wood Chippers as a reliable and strong alternative in the growing European market.

"So we decided to hire an export consultant for this area in collaboration with another local company in 1983. Once again, this proved to be the right

thing to do. The export consultant was extremely engaged and believed in our product and thoroughly studied the machines' design and function. He could practically service them himself," explains Svend Lind.

Always worth a trade fair

The international focus also meant that the company targeted efforts at demonstrating the wood chippers' capacity at trade fairs like Elmia Wood, the world's biggest trade fair for forestry equipment, which is held every four years in Sweden.

TP Wood Chippers were first presented at Elmia Wood in 1983 on a very modest exhibition stage and with a caravan functioning as the meeting area. "Our machines really caught the attention of people, among others, a Swiss customer who was also an engineer. He was really impressed by the way the machines worked and immediately bought two of them," says Svend Lind.

A few TP Wood Chippers were also sold to customers in France in 1983.

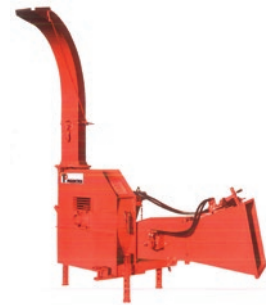
Valuable feedback

Follow-up dialogue, especially with the Swiss customer gave us valuable insight into how to improve the machines. His input continues to influence the basic design of modern TP Wood Chippers.

"Our first models drew wood in through horizontal rollers, but the Swiss customer pointed out that it would be much more efficient if the wood was drawn in via vertical rollers. He was also an important influence on the development of sliver breakers, which is a precondition for producing uniform chips, for example for automatic stokers. The dialogue really boosted our development process," explains Svend Lind.

In general, Svend Lind saw any feedback from customers as a valuable way of making improvements. It matched his development philosophy, which still drives TP Wood Chippers today: To focus on operational reliability, functionality and design while closely interacting with the users.

"A great many of our customers have a technical interest and we've always been ready to listen to their proposals for improvements, so we can deliver the best possible product. In terms of my own development work, I've always strived to ensure the TP Wood Chipper design is user-friendly. That's why so much of it is assembled with bolts. This means the machine can be easily serviced and maintained," continues Svend Lind.



A classic TP Wood Chipper

In the early years, TP Wood Chippers were manufactured solely for tractor fittings.



Elmia Wood in Sweden

Participation at trade fairs around Europe has helped to create a lot of valuable business relationships.

1982

Focus on export: An export consultant is hired

1983

Participates at Elmia Wood: First export to Switzerland and France

Systematic further development and improvement of wood chippers

1984

Two new TP models for forestry and agricultural use are presented

First wood chippers delivered to Danish municipalities

Breakthrough in the German market: 80 machines sold to Gerhard Dücker GmbH



*Mobile wood chipper with own motor
Trailer-based models have gained ever-greater market share since the mid-1990s.*

Several models and major breakthrough

Just three years after the first prototype had seen the light of day, Svend Lind expanded the wood chipper range with two more wood chipper models for forestry and agriculture and at the same time his efforts began to pay off on all fronts. The first Danish municipalities started investing in TP Wood Chippers and more followed in rapid succession, and then in 1984 came the



Dücker

Once the partnership with German Dücker was established, exports really took off.

big breakthrough in the German market. As is the way of these things, some good fortune helped along the way. "We participated in a major national and regional trade fair in Fredericia in Denmark in 1984. Gerhard Dücker, owner of a major machine manufacturer in the north west of Germany visited our stand. I wasn't there at the time but he left his business card. By chance, our export consultant happened to be in Germany, close to where Dücker's company was based. So he visited them the next day. This led to a demonstration of our wood chippers and the first sales to the local municipality," says Svend Lind.

After that, success was a matter of fact. Gerhard Dücker immediately ordered another 10 machines and shortly afterwards, 10 more.

"We sold 80 machines to him before the year had ended," says Svend Lind.

More capacity - new factory

It was clear that the existing production facilities could not keep up with demand. Svend Lind looked at the options and decided to establish a completely new factory at the current address in Ølholm. At that time it was a bare field, nothing but farm land. But Svend Lind knew that there were plans to build a major road in the area and it would pass right next to the site.

"We focused on exports from the very beginning.

It was a simple equation:

Denmark doesn't have a lot of forests, so clearly growth would have to come from abroad."

Svend Lind, founder and owner of Linddana

"It was a really excellent location for the company. There was easy access. I contacted Tørring-Uldum Municipality and they immediately agreed to my idea. It only took 14 days for me to get planning permission.

The new 1,800 m² factory was officially opened in 1986. At that time the company employed 15 people and manufactured about 200 wood chippers a year besides continuing with the manufacture of wood-burning stoves.



1986

Need for expansion:
Acquisition of site at
Ølholm

New 1,800 m² factory
established

15 employees

200 TP Wood Chippers
sold annually

Delivery to seven
different countries

Towards new horizons with Linddana

The Berlin wall fell in 1989 and Germany was reunified. The impact of this historic event was global and local, and it further boosted the development and success of TP Wood Chippers.

"The former GDR saw massive reconstruction, with new infrastructure and new roads and this meant a lot of work managing and clearing forests and scrub land. We ended up selling 20 machines a month to the new German areas. It was clear if we were to meet demand and potential sales we were going to have to increase capacity significantly," explains Svend Lind.

In the same year, the company had also launched three new wood chippers for forestry and agricultural use and the first TP Wood Chipper for the park segment, which also led to the need for increased capacity.

Action was needed. The factory was expanded by 2,000 m² during 1992 as the first stage in a number of expansions which more than doubled the capacity, and made it possible to keep up with increased sales on the domestic market and in the other countries in Europe.

Linddana sees the light of day

Svend Lind's original idea to develop and manufacture a powerful and reliable wood chipper for forestry turned out to be truly sustainable, both in terms of technology and business. In 1990 it was time to tackle a new era and lead the field: The company was given a new name - Linddana - and was converted to a limited company in order to ensure necessary financial strength for continued international expansion and development.

"In the same period the park and gardens business area really took off, which until then had been an almost untapped market. The municipalities own a lot of big parks and green areas and these need to be maintained and they also need wood chip to fight weeds. To meet demand, we chose to develop trailer-based wood chippers that were smaller, lighter and generally less expensive. Today, small and medium-sized wood chippers for park

management and landscaping are important for Linddana in terms of sales volumes," says Svend Lind.

Hello to garden series, goodbye to wood-burning stoves

The first TP Wood Chipper for municipal gardens was put into production in 1992 and thus Linddana could present a range of machines that covered the need for wood chipping for smaller landscape gardeners and major public parks and private forestry companies.



Wood chippers for gardens and parks

The smaller wood chippers opened up to a new and important target group: landscape gardeners.



Business award 1994

Receiving Tørring-Uldum Municipality's business award is due to Linddana's continuous product development and foresight in relation to environmentally friendly products.

1989

First TP Wood Chipper in the park series

Export to Germany increases significantly after the fall of the Berlin Wall

1990

New name: Linddana. Company becomes a limited company

1992

The factory expands by another 2,200 m²

1993

Wood-burning stove production is sold

1994

Purchase of first robotic welding system

At the forefront

From the very beginning, a flexible and efficient production process has been an important ingredient behind Linddana's success. Svend Lind has always been ready to embrace new technology when it promised to optimise quality and utilisation.

"This was the reason why we were one of the first companies to introduce advanced production technologies like robotic welders in 1994 and followed up with laser cutting in 1996, when we introduced a completely new plate department," continues Svend Lind.



Russian signature

A record order opens the door to the East.

Penetration of the Russian market

In the middle of the 1990s Linddana also achieved a breakthrough onto the important Russian market. It all started with a telephone call from the Russian Embassy in Denmark. A delegation from the Russian Technological Institute 'Gosniti', which covered the former Soviet Russia's ministry of agriculture, was interested in being given a demonstration of the TP Wood Chippers in Ølholm.

"They ordered four machines on the spot and invited us to come to Moscow and demonstrate the machines there. Moscow covers a large area and the city's parks department didn't want to keep burning waste wood and undergrowth. The demonstration led immediately to the sale of 41 machines to Moscow and kick-started our exports to the whole of Russia," says Svend Lind.

"In the beginning, parks and green areas were an untapped market, but as time went by we realized that the municipalities had a major need for wood chip production to fight weeds."

Svend Lind, founder and owner of Linddana

New generation

In 2000, Svend Lind decided it was time to step down as the director, so he could focus on what he loved: product development. In 2001, a CEO was hired to take over the running of the company as part of a process of professionalising key positions in Linddana.



TP 400 PTO

The largest model in the range – and the apple of Svend Lind's eye

"The following year, I was very much involved in the development of the TP 400, the biggest TP Wood Chipper ever built when it was launched in 2006," says Svend Lind.

He then continued as Chairman of the board for Linddana up until 2010.

Today, Svend enjoys his well-earned retirement, working in the forest, playing golf and hunting. Of course, he still follows the developments at Linddana with interest.

1996

Development of new models for the park segment

New plate department with advanced laser cutting

2001

New generation.
Svend Lind's three daughters become share owners and members of the board of directors.
New CEO appointed

Market-orientated with international ambitions

When Svend Lind handed over the reins in 2001, it was with the desire that Linddana should continue to strengthen its position in the international markets. The foundation was already in place. The company had a wide range of reliable TP Wood Chippers that covered every need for wood chipping for forestry, parks and gardens. At the same time TP machines were well-established in all of the important European markets.

Strengthen competitiveness

The new management at Linddana focused on trimming production to strengthen competitiveness. High quality had been the strongest sales argument for TP wood chippers. Now it was about increasing efficiency while ensuring quality was not compromised.

In 2002, LEAN was introduced, which optimised every process, from production to spare parts handling. In parallel, resources were allocated to improve the industrial design of the machines to simplify the production process, supported by major investments which included CNC production systems.

One of the visible results of the efforts was the launch of the new TP 160 series, which today stands as one of the best-selling models in the history of Linddana.



Latest production equipment

TP wood chippers are manufactured using modern production equipment, including high-tech laser cutters.

Towards marketing and branding

As with so many other businesses, the financial crisis of 2007 and 2008 had a major impact on Linddana and set a whole new agenda. Up until that point, the market for wood chippers had grown organically, with among other things, new markets in former soviet republic countries and an increased

awareness of wood chip as a source of fuel all over Europe. Linddana rode this 'green wave' for many years and was used to working in a market where the wood chippers practically sold themselves through dealers, personal contacts and at trade fairs.

When the crisis appeared, everything changed practically overnight. It quickly became clear that there was a need for greater visibility in the different markets if the company was to maintain and ideally increase sales.



TP 175 MOBILE

A popular trailer model that is made from a new type of high-strength steel, resulting in a lighter and stronger wood chipper.

In 2009, new management was hired with the clear objective of making Linddana a more market-orientated company. In practical terms, this meant the company for the first time had to develop sales concepts and marketing strategies that supported the message that its wood chippers were reliable, high-quality machines. The overall aim was to increase awareness at the dealers and end users and make TP Wood Chippers one of the world's leading brands in the area. The overall experiences of the machine quality was summed

up by the slogan "Reliable Chipping", which was also pivotal for all of the marketing and an important tool for building loyalty to Linddana and TP Wood Chippers on all markets.

2003

Modernisation and expansion: 1,300 m² warehouse and 800 m² for administration/showroom

2005

25th anniversary

2006

TP 400 – the largest TP Wood Chipper for forest management is launched

2008

TP 160 series launched – a hugely popular park model

2009

New management focusing on international sales and marketing

RELIABLE CHIPPING

As an important part of the sales and marketing strategy, Linddana also established a closer and more binding collaboration with significant distributors all around Europe.

New initiatives promoting the message

Today, business development and being market-orientated are two sides of the same coin at Linddana. For example, new products are developed faster to meet market demand. The latest examples of this include the TP 320 PTO K with new energy-efficient TP OPTICUT technology and the compact lightweight model, the TP 175 MOBILE, which only weighs 750 kg through its use of high-strength steel and other design measures.

Linddana's focus on customers is reflected in its unique product warranty: It is the only manufacturer of wood chippers in the world that offers a 3-year warranty for the complete range of TP Landscape Wood Chippers. A strong message that is reflected in the market share.

The company's slogan is "Reliable Chipping" – in other words, operationally reliable machines - is further supported by the

service concept called the TP SERVICEBOX. The service box contains all of the critical wearing parts and is included free of charge with most TP Wood Chipper models.



Marketing material

The credit crunch led to streamlining and an intensification of TP wood chippers' profile.

2012

TP 320 PTO K
– introducing TP OPTICUT,
a new energy-efficient
technology

New service concept:
TP SERVICEBOX

2013

Unique 3-year
warranty on TP
Wood Chippers

Introduction of TP TWIN DISC
– a strong rotor design

TP CHIP KIT launched
– accessories for the
optimisation of chip quality

The Linddana of today and tomorrow

The results of the many new initiatives become apparent in the growing number of orders and increased turnover. In Denmark TP Wood Chippers are sold through selected machinery businesses. In all the other countries sales are conducted via a hand-picked network of highly proficient national distributors. Collaboration with distribution segments are high priority for Linddana and are deemed to provide great chances for further growth. Not only that, Linddana is in the process of setting itself up in attractive markets in places like Asia, Africa and North America. Globalisation has definitely made its presence felt in the wood chipping world and enquiries from more exotic destinations are becoming an everyday occurrence.

Globalisation also affects product development because even to a greater extent than today, wood chippers of tomorrow will need to be incorporated into more user-scenarios and live up to different environmental and security regulations. TP Wood Chippers shall be a guarantee for efficient and reliable wood chipping everywhere, even though the lush conifers in Scandinavia to the dessicated wood in South Africa are far apart no matter how we look at it.

Today Linddana has a strong and wide product range, which is continuously streamlined in relation to development of the most important customer groups and markets. Previously, market demand for tractor-fitted TP models was greatest, above all in the Danish market, which is dominated by agriculture. But today that has changed in line with Linddana's expansion into new markets. Today, the sale of trailer-based models has never been greater and the trend is clear: The mobile market will grow further in the future.

Sales figures show that the typical TP wood chipper that leaves the production site today is significantly bigger than those that were made a few years ago. The increased sales of larger wood chippers for professional users

tallies with the rapidly increasing demand for wood chip for heating plants which is associated with the green conversion process to CO₂-free forms of energy.

The TP Wood Chippers of tomorrow will certainly economise on fuel to an even greater extent and be more environmentally-friendly and efficient – while retaining the same level of operational reliability and user-friendliness that they are known for.

TP logo development since 1980 (from top)

The transformation to a public limited company in 1992 and name change to Linddana A/S, meant the company needed a new logo. However, the official logo has always been the trademark TP. Today the company slogan 'Reliable Chipping' is likewise a viable part of the international profile.



LINDANA

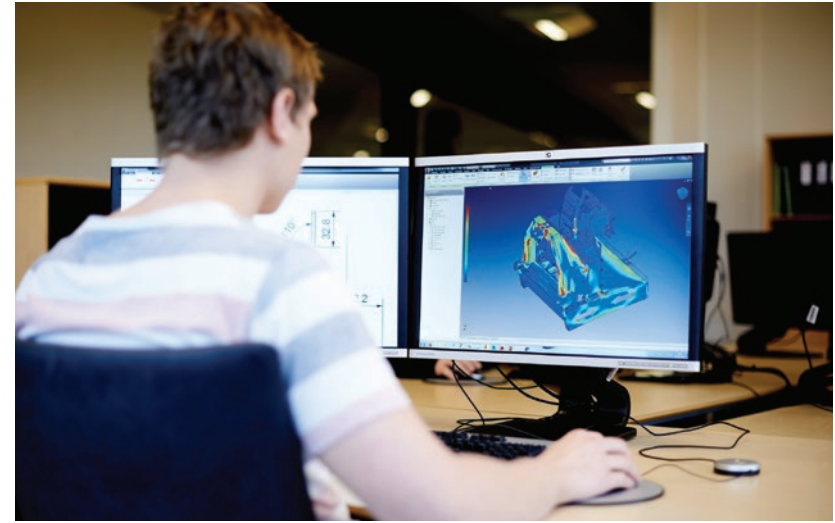


**RELIABLE
CHIPPING**

2014

The light-weight TP 175 MOBILE is launched, a wood-chipper that can be driven using a standard driving licence

Company employs 45 people and sells to over 40 different countries around the world



Leaders in the wood chip industry

Since 1980 Linddana A/S has successfully developed, manufactured and sold TP Chippers. Today the Danish-owned company distinguishes itself by being one of the leaders on the market, offering a wide selection of reliable wood chippers for landscaping and biomass production. The range meets all requirements, from landscape gardens to public and private forestry.

Linddana's strong international position is founded on extensive technical expertise and unwavering commitment to high quality, both in the selection of materials and in manufacturing processes. By combining high-efficiency automation with the skilled workmanship at the Danish factory, we maintain the highest quality standards.

Linddana is actively involved in development work, where we maintain a series of close professional partnerships and always insist on meeting our clients' demands for reliable machinery for use in landscaping and biomass production.

TP Chippers from Linddana are marketed throughout the world, and backed up by efficient service organisations in most countries.



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