



Part of Addtech AB

Quality European
manufacturing

Components made
to your exact
requirements

No application
too tough

High-strength,
corrosion-resistant
chains are our specialty

More than
just suppliers

Business partners
guaranteeing the right
solution for the job

Chain of success

Meet the chain experts
adding new levels
of value



Welcome

The FB Group is one of the oldest chain companies in the world. Our curiosity about new technologies and enthusiasm for developing solutions together with customers have kept us on the market since 1908 — and we have no intention of leaving it. So what is the secret to our longevity?

We are empowered to act and adapt.

The FB Group is unlike any other chain company in the world in that we are not one single company. Instead we are a collective of businesses working with similar products in similar industries and markets.

Our owner Addtech, a Swedish technology trading group listed on the Stockholm Stock Exchange, gives us the resources and network of a large organisation but allows us the freedom and responsibility to get on with what we do best — namely, providing value-added solutions to our customers.

This decentralised approach means our entrepreneurial employees can take decisions quickly and respond to local market needs. Market trends vary widely across Europe and we have all developed our own expertise and ways of working to deliver the best results for our respective customers.

Global operations, local expertise

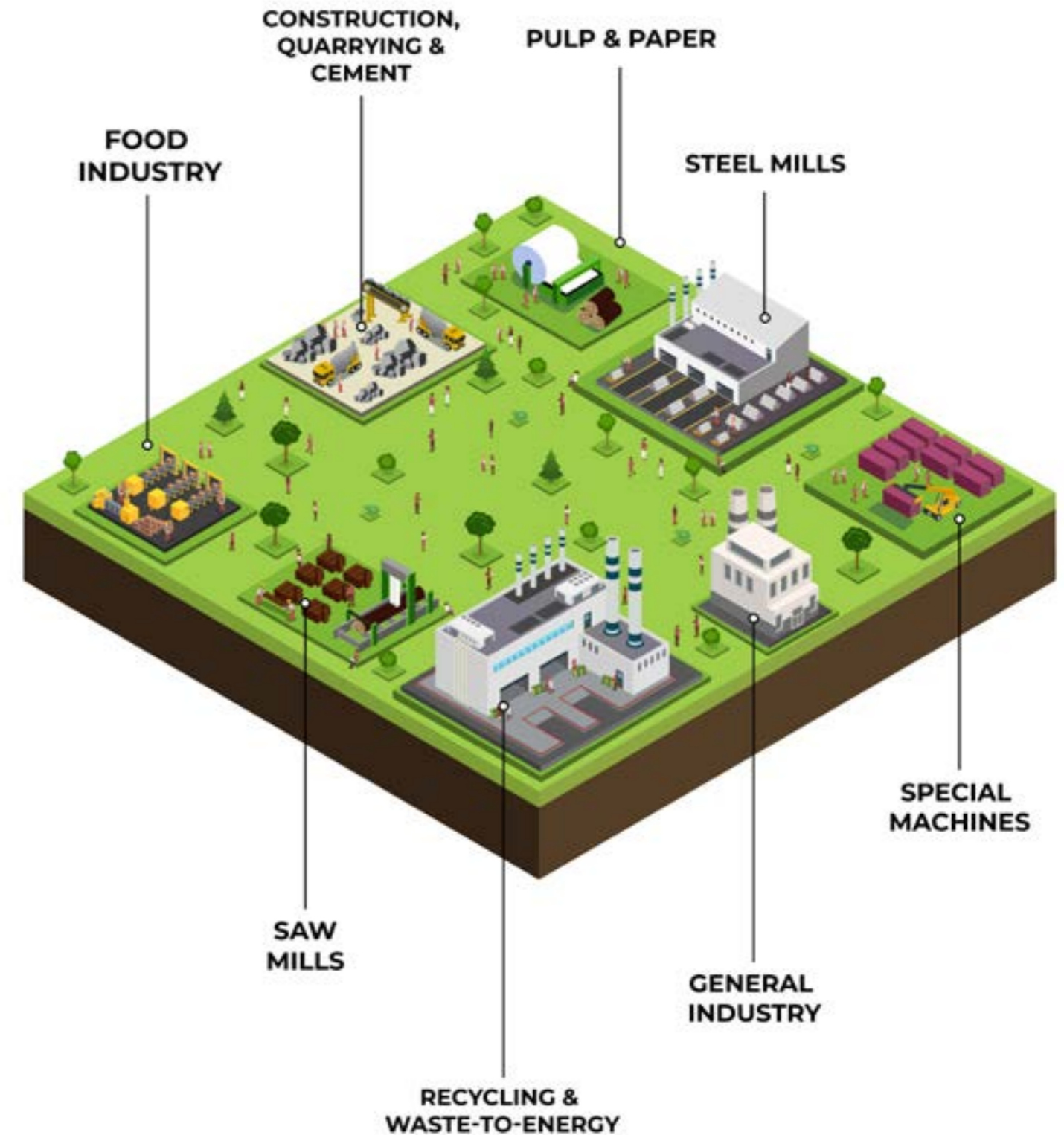
Over the next few pages, you'll hear from each of the managing directors in our group about their business's unique strengths and how they have adapted to become market leaders in their various fields — from setting the standard in sawmill technology to driving the growth of waste-to-energy.



As you read on, you will discover that despite our differences we still share much in common. We all work to the same values of trust, cooperation, measurable improvement, sustainability and peace of mind — and we love a challenge. It brings out the best in us.

Ultimately, all of us in the FB Group want to be more than a supplier of chains and associated parts to our customers. We want to be a partner and add value to their businesses — in whichever way we can.

Mikael Keränen
Manager, FB Group



Premium quality conveyor chain made just for you

At state-of-the-art production facilities in Finland, FB Ketju designs and manufactures products according to customers' exact requirements. Managing director Mika Suomi reveals how this approach ensures the highest quality at the lowest cost for the customer.

Our manufacturing capabilities are our greatest strength at FB Ketju. They allow us to control the entire supply chain — from R&D, through production, to delivery — guaranteeing quality and lead times that customers can trust.

If a company has to pause their operations due to poor quality chain or a late delivery, they lose time and money. But customers can always rely on us to keep their equipment up and running — and earning. This is what keeps them coming back to us again and again.

As well as supplying our sister companies in the FB Group, our customers include OEMs, distributors and end-users in the logging, saw mill, paper and pulp, waste handling, recycling and mining industries. We even supply chain to some of our competitors when an order is too tricky for them.



No chain too complicated

All the toughest conveyor chain manufacturing challenges fall to us — and we love it.

Our R&D department is constantly investigating new materials, structures and manufacturing methods to make our chain and associated parts more durable and more economical. At the same time, our customer support team designs chains around customers' individual needs to achieve the best possible performance in their application.

Some of these bespoke designs could be difficult for others to manufacture but not for us. We even produce customised chain and associated parts in limited volumes, which our large Asian competitors definitely will not do.



02. Premium conveyor chains of different sizes and materials

Quality European manufacturing

We only use European materials, are rigorous in our quality control and continually invest in our facilities. In September 2019 we opened a new production facility in Lappi, southwest Finland, as a complement to our existing Köyliö premises. The new factory provides us with a well-optimised material flow and we are also furnishing it with all the latest equipment, including top of the line welding machinery. We would be proud to welcome more customers for a tour.

As well as ensuring the ultimate in quality, this key investment has helped us improve the efficiency and flexibility of our operations.

The facility is highly automated and our robots and CNC-centres can work through the night if necessary to meet short lead times.

This means the customer gets exactly what they need, when they need it, with no compromises or waste. We can choose the materials, design and manufacturing method most suitable for the job — no matter the complexity or volume — and the customer is reassured by a product that is made in Europe to the highest quality and delivered exactly when we promise.

When it comes to quality, customisation and reliability, there really is no other chain company quite like us.

www.fbketju.com



01. Welding process

Sustainable conveyor chain for a sustainable future

FB Kedjor managing director John Karlsson explains how the company's combination of innovative materials, tailored designs and expert installation helps conveyor chain customers drive their sustainability agenda.

FB Kedjor is the oldest and original FB company, from which all our sister companies sprang. We produced our first chain in Eskilstuna — the home of the Swedish steel industry — in 1912, although our roots date back even further.

Over the years, our long-serving members of staff have been a strong and stable presence for customers as the world has changed around them. But that doesn't mean we have stood still.

We have continuously built on our experience and application knowledge to design solutions specifically according to customers' needs. One need that has become increasingly common in recent times is sustainability — and I believe we are ahead of our competitors in this respect.



Limiting environmental impact is extremely important to our customers, who typically operate in the paper and pulp, sawmill, energy, steel and cement industries. Most are based in Sweden and Norway but we also serve customers in Russia and even as far away as South America.

So how do we make our conveyor chains and wear guides sustainable? By designing them to be as efficient and long lasting as possible.

Cutting-edge materials

This process starts with the choice of material. We have a very close relationship with Nordic steel company SSAB, who develop materials together with us. We come to them with demands from our customers — for example, a lighter weight or greater resistance to corrosion — and they test new materials in our chain applications. It makes a big difference.

Measurable improvements

Then our experienced installation team guarantees the solution is fitted properly and runs as it should. But that's not the end of it. Every so often we carry out upgrade inspections to measure and demonstrate conveyor performance improvements.

SSAB has developed a 'wear calc' programme for us, where we can enter the material used for the chain and wear guides, along with the type of material conveyed to show the tonnes per hour moved before and after — and prove a reduction in wear and longer service life.

Working with us to ensure the right product in the right application may involve some investment initially but it will be more cost effective and deliver a lower total cost of ownership (TCO) in the long run. And we believe our approach towards helping customers become both economically and environmentally more sustainable will stand us in good stead for another 100 years to come.

www.fb-kedjor.se

If we can produce stronger chain and wear guides with less material, we cut down on the amount of iron ore we use and thereby lessen the impact its mining and transport has on the environment — and we use less water and energy during manufacturing. Then once these lighter products are in operation at a customer's site, they can be driven by smaller motors that consume less electricity.

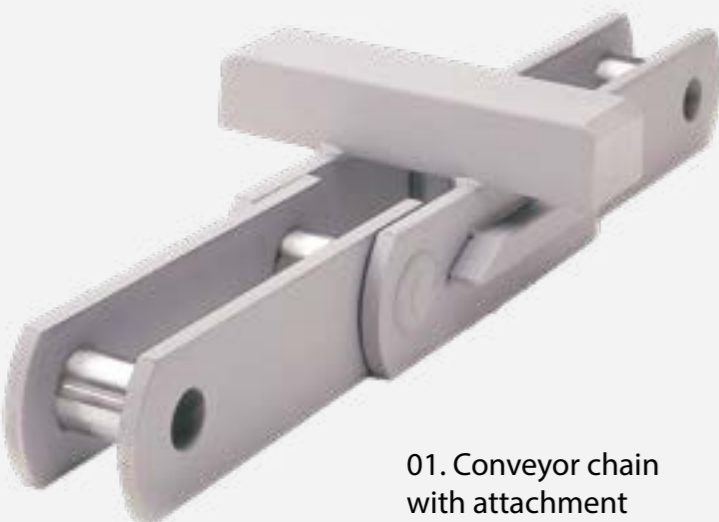
If we can also produce components to have a longer service life, we further cut down on the quantity of raw materials used in our industry, as well as the amount of steel that has to be recycled as fewer chains and wear guides are replaced.

No unnecessary waste

We also increase the efficiency of our products by tailoring them to each customer's application and set-up — no material or energy is wasted unnecessarily. We hire people who have previously worked in that application — with maintenance or process skills — and understand the requirements inside and out. This application knowledge, added to our chain expertise, ensures we design the optimum solution for the customer.



02. FB Kedjor office, warehouse and workshop



01. Conveyor chain with attachment

Setting new standards in the sawmill industry

Over the last 30 years FB Ketten Austria has grown to become the technology and market leader in conveyor chain and sprockets for the sawmill industry. Managing director Thomas Wagner reveals the secret to the company's success.

Our strategy at FB Ketten Austria has always been to focus sharply on a few niche segments, where we can look for solutions to problems and scale with them. And where better to start than the toughest of them all? Namely the sawmill industry.

Industrial sawmill conveyors operate outside all year — even in snow — face regular shock loads and often suffer from a lack of maintenance as businesses struggle to find experienced personnel. If we can keep a conveyor running in a sawmill, we can guarantee uptime anywhere.

Building on thousands of technical drawings and best practices shared among the FB Group, we cooperate closely with sawmill customers to provide the optimum solution for conveyors handling from 2,000 m³ up to 2.5 million m³ of timber per year. This could be a regular FB product or a customised solution, developed together with our manufacturing colleagues at FB Ketju in Finland.

Proven in the aftermarket

Often our customised solutions become the new standard. For edgers, for example, we found that a special heat treatment on the pins could increase the lifetime of the chain and sprockets by 30-50% without any adjustments to the installation. It's not rocket science but simple changes can make a big difference — and our OEM customers



appreciate us incorporating this experience into the components we supply to them.

We can safely say that we know more about sawmill chains and hold more in stock than anyone else in the industry — but it's harder to keep the number one position than to get there. Many competitors copy our designs and we have to constantly innovate to stay two steps ahead.

Your work life made easier

One thing our competitors cannot copy, however, is our dedication to customer value. We strive not only to be the most capable in the industry but also the easiest to work with, saving customers time, money and risk.

It's always easy to contact the office or a technician on the road and we respond quickly with a site visit, where required, to ensure the right solution. All the while, we speak to customers in their language. Instead of talking

about chains, we talk about their machinery, conveyors and process.

We get to know their business and write the individual conveyor names on all documents to help the maintenance department. When each shipment arrives at the customer's site, the warehouse staff know immediately which chains are used for which conveyor and store them in the correct place. This attention to detail avoids any internal questions and misunderstanding and makes it easier for the customer to stay on top of their planning.

Here to help

All in all, we are an extremely knowledgeable and friendly team with a genuine interest in our customers' businesses. In our 30-year existence, we have amassed vast expertise in sawmill conveyors that we can apply to both aftermarket and OEM enquiries. We'll even design components especially for you — and make the whole experience of dealing with us as simple as possible.

When only the best will do, we're the team to ask.

www.fb-ketten.at



01. Canter infeed chain



02. The FB Ketten Austria team

Industry leaders in biomass conveyor chains

More and more biomass and energy-from-waste plants are approaching FB Ketten Germany for help extending the life of their conveyor components. Managing director Matthias Berls explains the company's rise to prominence in this challenging segment.

Around 15 years ago we started to receive a number of enquiries from customers looking for conveyor chains and associated parts in the incineration industry. The FB Group has a long history and we are well known in many other segments, such as sawmills, paper and pulp and cement, so we took the opportunity to expand our presence and expertise.

Working closely with a group of reference customers, we sought to understand the unique demands, especially of biomass and energy-from-waste applications and develop solutions especially for these segments. In particular, the environment is very humid and the material conveyed is often abrasive and polluting. This meant we had to make chains stronger and more resistant to corrosion, which we achieved through a combination of various materials, heat treatments and constructions.



Not every chain supplier can be this flexible but we have a close relationship with our R&D and manufacturing colleagues at FB Ketju in Finland. We go to them with demands from the market and then create new products together. As a result, the steel and production methods we use for these customers are completely different to those used in standard chain applications.

Game-changing innovation

One innovation we are particularly proud of is our INNO scrapers made from multi-laminated beech wood, which save up to 60% of weight compared to steel scrapers and are just as strong. The contents of biomass can be unpredictable and large pieces of metal hidden in the fuel may cause traditional scrapers to buckle and deform, causing unsalvageable damage to surrounding chains, sprockets and furnaces. In our experience, this is one of the most common and costly causes of conveyor downtime at biomass plants.

Our lightweight INNO scrapers, however, reduce the stress exerted on the conveyor drives and simply snap when overloaded without harming any other components. They can be quickly and easily replaced and disposed of in the furnace with the biomass, saving customers time and money.

Since the availability of fuel to burn at biomass plants depends on many market forces, it is important that conveyors are equipped to handle all types and quality grades of material. Waste-to-energy plants face similar situations. Operators do not want to run into problems just because they have had to change fuel supplier or purchase a cheaper quality.

The right solution

We ensure conveyors are properly equipped by cooperating closely with customers — we aim to be more than a mere supplier, rather a business partner. Our team of nine highly-trained sales technicians, located all over Germany, examines customers' applications in detail to identify weak points and specify the right product together with technicians in our back office and the operators of the conveyor systems. We always try to sell the customer what they need, not what we have. This philosophy means that we do a lot of customising because every application is different.

So if you are an operator of a biomass or waste burning plant, seeking to extend the life of your conveyor chain and surrounding components, it would be our pleasure to have a look at your application and demonstrate that we are the right partner for the job.

www.fb-ketten.de



02. INNO scrapers



03. Biomass conveyor



01. Welding process

So much more than just chain

David Chippendale, FB Chain Blackburn director, tells the story of how its experienced engineers provide turnkey conveyor solutions for clients — sometimes without a chain in sight.

I always find it difficult to describe what we do because it's so varied — one day we'll be doing a bit of bespoke sprocket work and then reengineering a complete conveyor using modular belts the next. So I'll start with who we are.

FB Chain in Blackburn is the conveyor and roller chain division of FB Chain in the UK. The FB Group affords us the manufacturing resource and backing of a £1 billion organisation, while we bring decades of bespoke design, installation and re-engineering experience for conveyors on all scales.

Experts in problem-solving

During our existence we found a niche ability to survive where other potential companies struggled to respond fast enough to clients' needs and problems. Being a part of a group of companies with vast knowledge, we were able to act quickly to achieve big cost savings for our clients, using more modern materials that lengthen service life and re-engineering systems to make them more efficient.

As an engineering company — as opposed to a product company — we weren't limited to a catalogue of options to base our designs on. We were free to create truly bespoke solutions — and often ended up with all the tricky jobs that competitors couldn't or didn't want to complete.



A unique proposition

Historically, a client would purchase chain from us or another chain supplier and then have to find someone else to install it. FB Chain now offers this service in its entirety, which is much more efficient and cost effective — but very rarely do you see a company who will do the whole package, simply because of the different skillsets involved. We are unique in this respect.

And even though the Blackburn team is part of one of Europe's largest chainmakers, our focus on supplying solutions to problems, rather than just products, has not changed. We are all about customer service — understanding the needs of the client and providing the right solutions often in a tight time window.

In contradiction to a company that supplies solutions to replace worn out chain, we also have a product that extends the life of conveyor chain. Our RotaLube products do just that through correct lubricant dosing which is yet another example of our forward thinking.

Dedicated to customer service

Some of our competitors might claim to be providing the right solution — perhaps even a customised one — but, as I mentioned before, chain people often try to solve the problem with parts from a repertoire. With us, the goal posts are as wide as they can possibly be.

We look at the application and think about how we can improve the design for ease and longevity with no limitations. This could be with a standard FB offering or a completely bespoke one — and if it involves converting a conveyor from using a chain to a belt, we will do it. How many chain companies do you know who would commit to that?!

Our promise at FB Chain is to stay flexible and not push a product agenda. So if you are experiencing an issue with your conveyor or are in the market for an entirely new one, please do speak to us. Our experienced engineers will go above and beyond to find you the very best solution — whatever your industry — and install it with the absolute minimum of fuss, helping you stay operational and profitable.



01. Delivery of special conveyor chain



02. Special adapted roller chain

Bespoke chain assembly kits delivered just in time

FB Chain managing director Peter Church explains how the leaf chain specialist is helping telehandler manufacturers to build more units, quicker — and ensure a high-quality and easy-to-maintain machine for the end user.

Telehandlers are big business. The market is booming — and shows no signs of slowing down, with analysts predicting growth of almost 6% between now and 2022. But can manufacturers keep up?

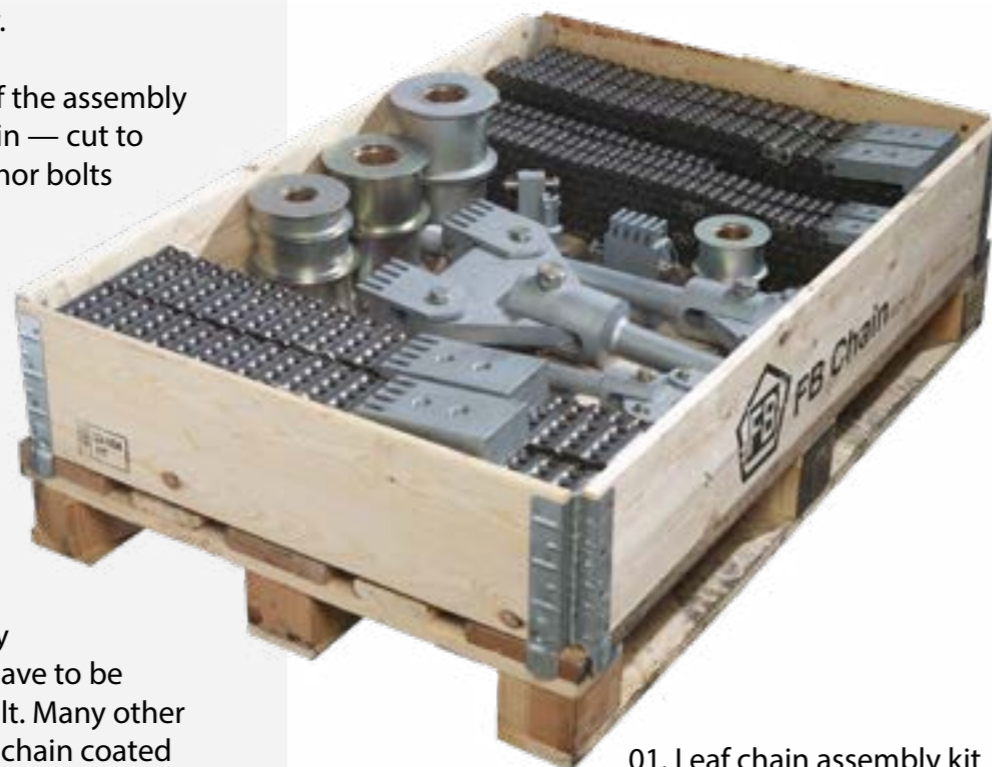
When demand is high, a flexible and agile supplier can make a huge contribution to the speed of production — and we're doing all we can to help.

First, we start with the design of the components. It's important that our OEM customers think about how they are assembled right from the start so we can ensure they get the optimum specification for ease and cost of assembly.

Then we remove one stage of the assembly process by providing the chain — cut to the right length with the anchor bolts already attached — and the accompanying pulley in a leaf chain assembly kit. The kit can be mounted directly onto the boom from the pallet, easing scheduling issues, eliminating stock loss and saving valuable time. We remove a further production stage by lubricating the chain ready for service so that it doesn't have to be done after the machine is built. Many other suppliers simply deliver their chain coated



in a high grade of oil, which will prevent it from rusting on a shelf but not when out in the field.



01. Leaf chain assembly kit

Not that you'll find our chain sitting on a shelf. We understand the importance of keeping a low inventory and pride ourselves on our short lead times and just-in-time delivery to help customers maintain optimum stock levels. Over the last few years, we've increased both our capacity and flexibility by investing in four new robots, who can work through the night if they have to, ensuring we always deliver on time.

Increasing production output and lowering cost should never be at the expense of quality and safety, however. Quality and safety are crucial to both our OEM customers and end users — and are part of our DNA.

Traceability guaranteed

Compliant with the ISO 9000 Quality Management System, our leaf chain and machined parts are produced from specialist steels that are designed to withstand shock loads, maintain strength, minimise elongation and resist wear. Each product is issued with a test certificate and is clearly marked with a tracking or batch number, allowing it to be traced back to its raw materials. Other product



02. Professional chain wear gauge

features increase the attractiveness of our customers' machines as a whole when selling to the end user. Housed inside the boom, leaf chains and associated parts are difficult to service so we include a special rust prevention coating on the chain and self-lubricating bushes on the pulley. This attention to detail makes the final telehandler much easier for the end user to maintain and reduces the downtime required for servicing.

It might seem cliché but our ambition genuinely is to be the best partner for our customers — to work with them to design the right boom solution, to help them be efficient and profitable in their operations, and to contribute to a high-quality and appealing product overall for the end customer. Their success is our success.

www.leafchain.com



03. Leaf chain with anchor bolts attached



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