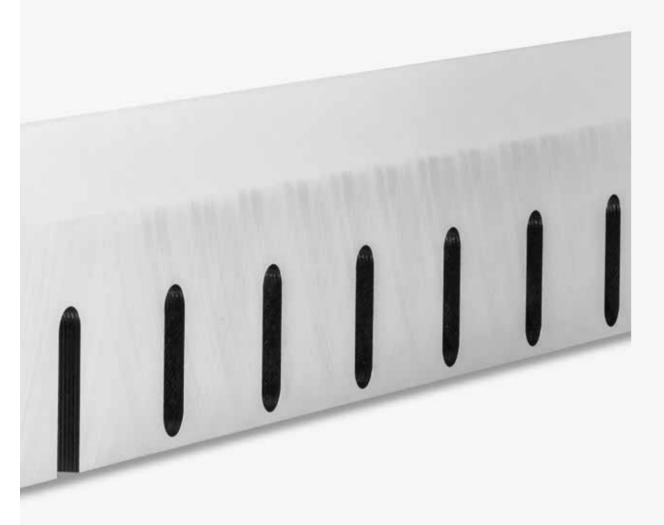




Knives for the Veneer and Plywood Industry



Precision and Perfection: For optimal cutting performance, surface consistency and longevity.

Our in-depth understanding of cutting requirements for diverse industries is the foundation of our products for the veneer and plywood industry.

We produce highly efficient precision made cutting tools made from chrome steel, tool steel, special material, surface treated or refined that prove their merit during long term use.

The focus of our service depends on frequent customer dialog. Together we develop the

most enhanced cutting tools and systems for specific peeling and slicing production processes.

Due to an uncompromising quality management – from the procurement of raw materials to final delivery – we are confident that our manufacturing controls and processes further enhance the performance of our cutting tools.

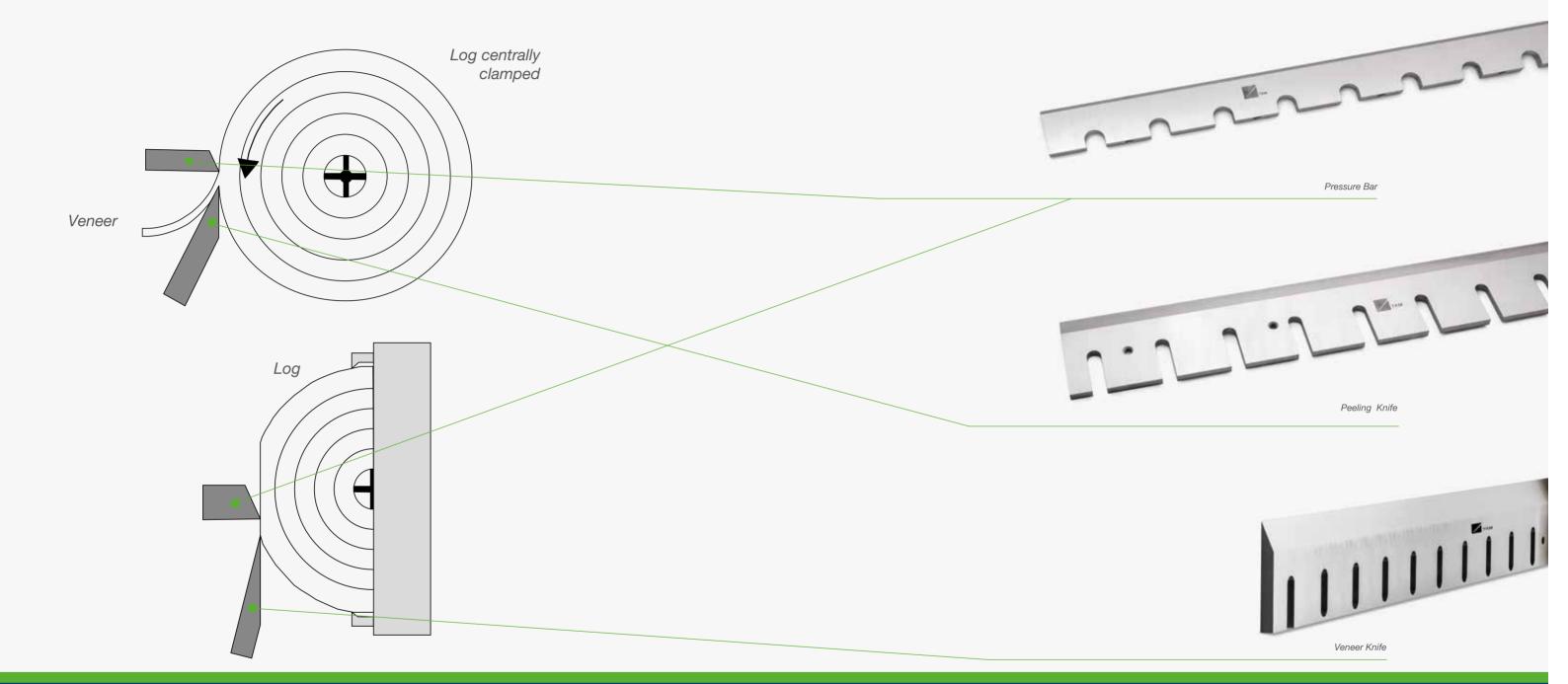
Customized solutions with measurable added value.

TKM. The Knife Manufacturers.

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Knives for the veneer and plywood industry



The TKM Group has been manufacturing high-quality veneer slicing and peeling knives for the veneer and plywood industry for over 100 years. Our specialized manufacturing and vast application knowledge qualifies us as cutting experts for wood having various characteristics and qualities.

Owing to our unique corporate structure, we have an acquired proficiency in working with a variety of customers, OEMs, markets and industries. We continue

to deepen this solid experience at our various production sites by developing specific cutting solutions considering each customer's machines, processes and products.

Cutting solutions are more than simply choosing the right veneer slicing and peeling knives for the main cutting process.

Optimization of the upstream and downstream cutting development is equally important; therefore, we also produce a complete line of complimentary tools and accessories for the veneer and plywood industry.

- Veneer slicing knives
- Peeling knives
- Pressure bars
- Veneer guillotine and clipper knives

- Cut-off saw blades
- Debarker knives
- Chipper and counter knives
- Scoring knives

Continuous improvement of all cutting processes ultimately leads to a consistent high-quality final product for our customers.

Veneer slicing and rotary peeling knives

The main goals of "peeling" and "slicing" consistent veneer center upon a precision perfect cut which directly influences the grade and the dimensional properties of the final product.

Accordingly TKM veneer slicing and peeling knives are both manufactured according to the highest possible standards for state-of-the-art industrial cutting tools. Application specific selections of raw materials, in-house custom heat treating processes and cutting geometries tailored to each customer application ensure that our veneer slicing and peeling knives deliver the best possible cutting quality and extended life-time.

Further benefits are veneer thickness consistency combined with a smooth, homogeneous surface without discoloration or damage to the unique wood structure.

In addition, the customer specific design of our knives brings reduced cutting machine effort, lower power consumption and fewer knife changes when producing veneers in thick and thin cutting ranges.



Technical Characteristics

Dimensions	Length up to 6000 mm, width up to 250 mm	
Hardness	Standard 56 60 +- 1 HRc	
Tolerances	Cutting edge straightness [mm]: <3000 = 0.5 / >3000 = 1.0	
Heat Treatment	solid or partially hardened	
Surface Characteristics	up to Ra 0.25 µm	

Versions and specifications

- Compalloy / Compound: with high-performance steel inlay
- Solid / Ventan S: through hardened made from high-performance steel
- Novacrom / Antannin: through hardened and stain resistance made from high-performance chrome steel
- Individual special versions

Pressure bars

A high-quality pressure bar is also indispensable to achieve a precision perfect cut since it determines the production relevant cutting thickness for the specific veneer process. Specifying the correct relationship of knife and pressure bar design and steel composition is crucial.

TKM pressure bars are manufactured to the same high-tech production methods and standards as our veneer slicing and peeling knives and in doing so present our customers with complete and precise long-term cutting solutions.

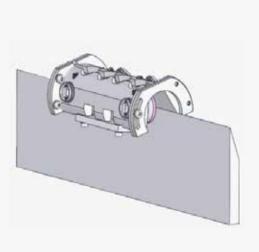


TKM Service Set

Our Service Set gives our customers the ability to consistently hone a sharp finely polished (Ra 0,03µ) micro bevel on both sides of the cutting edge tip. These well-designed portable tools stabilize the entire cutting edge and extend knife lifetime while maintaining the cutting quality at the highest possible output levels. This honing process strengthens the knife edge and directly affects veneer surface quality by reducing the risk of cracking and chipping the cutting edge.

The Service Set can be used in the grinding room for initial cutting edge preparation and in most cases also to freshen the cutting edge of the knife while it remains installed on the veneer slicing and rotary peeling machine. This added feature reduces the frequency of knife changes and has been an attractive economic benefit for customers utilizing this micro beveling system during the past years.

Using the Service Set in daily operation has been widely accepted by many customers. Accurate and consistent micro beveling of long knives with the system is quickly mastered and maintenance is simple.





Versions and specifications

- Tecalloy / Tool Steel: induction hardened made from high-performance steel
- Stainless / Inoxit: induction hardened made from high-performance stainless steel
- **Stellite:** welded
- Individual special versions

Specifications

- TKM Service Set for sharpening and honing
- Different grinding rings, grinding segments and honing stones
- Magnetic knife guard
- Tool set for adjusting the grinding system

Close by — Worldwide.

The TKM group forms a system of cutting expertise. We create additional value — far beyond cutting.



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Headquarters TKM, Remscheid



TKM, the internationally leading corporate group, manufactures and sells high-quality industrial knives, saws, doctor blades and precision consumable parts for industrial applications.

Our technologies, products and industrial services are applied and appreciated worldwide across many industries. As an independent family company, we have been setting the standards in quality and innovation,

technical expertise and close cooperation for over 100 years.

Reliability, integrity and commitment are the hallmarks of our collaboration. We define our claims to excellence in terms of these fundamental values by being:

Innovative, precise and close by

Innovative:

We strive for new technology and continuously develop products and processes, in order to produce the highest performing Industrial machine knives and cutting tools.

Precise:

Our products, services and technical ability all help benefit our customers processes, productivity and finally finished product to assist in their operational development.

lose by:

Our philosophies are sustainable and stand for a balance between environmental measures, economic development and social engagement.

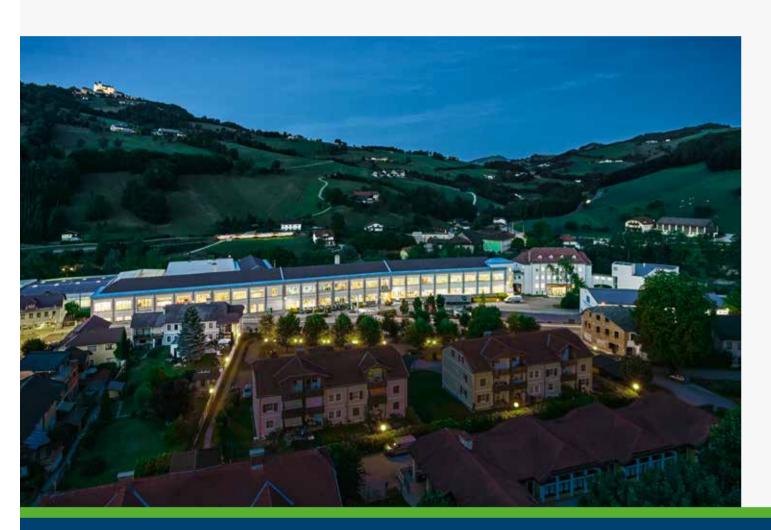
No matter where you are in the world a TKM subsidiary or partner is never far away.

TKM Austria

At two Austrian production sites, in Böhlerwerk and Traismauer, we develop and produce products for cutting applications for the metal, paper, wood, stone, rubber and plastic industries. In the last couple of years, we have developed the Böhlerwerk site into a competent partner for the production of complex components for mechanical engineering.

Equipped with state-of-the-art machinery, we design and deliver all industrial knives and machine elements required for current applications. In this way, we can ensure the efficiency of your systems.

With our know-how and substantial in-house production depth, we'll find the right solutions for your manufacturing processes.



TKM Austria - Böhlerwerk

- 180 workers 10% trainees
- 75 machine tools, including: 5-axis milling, precision grinding, chamber, inductive and vacuum heat treatment ovens, straightening shop
- 11.000 m2 total production and storage area
- Main areas of production: metal, wood, paper, machine elements, plastics/recycling
- Production batch sizes: 1 to 500

TKM Austria – Traismauer

- 48 workers 10% trainees
- 45 machine tools, including machines and systems for laser cutting, milling, grinding as well as heat treatment and hard soldering
- 3.000 m2 total production and storage area
- Main areas of production: wood, metal and stone
- Production batch sizes: 1 to 500

TKM TTT Finland

TKM TTT Finland is one of the leading manufacturers of tailored and high-quality saws, knives and wear parts for the wood industry.

For over 50 years our partners from the sawmill, wood pulp, plywood and veneer industries have trusted tools from TKM.

Our tools are used in around 35 countries.

State-of-the-art machinery with the latest heat treatment systems and CNC machines as well as highly motivated employees ensure the quality of today – and tomorrow.



TKM TTT Finland

- 111 workers 10% trainees
- 105 machine tools
- 11.900 m² total production and storage area
- Main areas of production: Wood, Paper, Machine parts
- Production batch sizes: 1 bis 2.500
- Production volume: 100.000 precision parts per year



TKM

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TKM Meyer

TKM Diacarb

TKM France

TKM Austria

TKM TTT Finland

TKM US

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