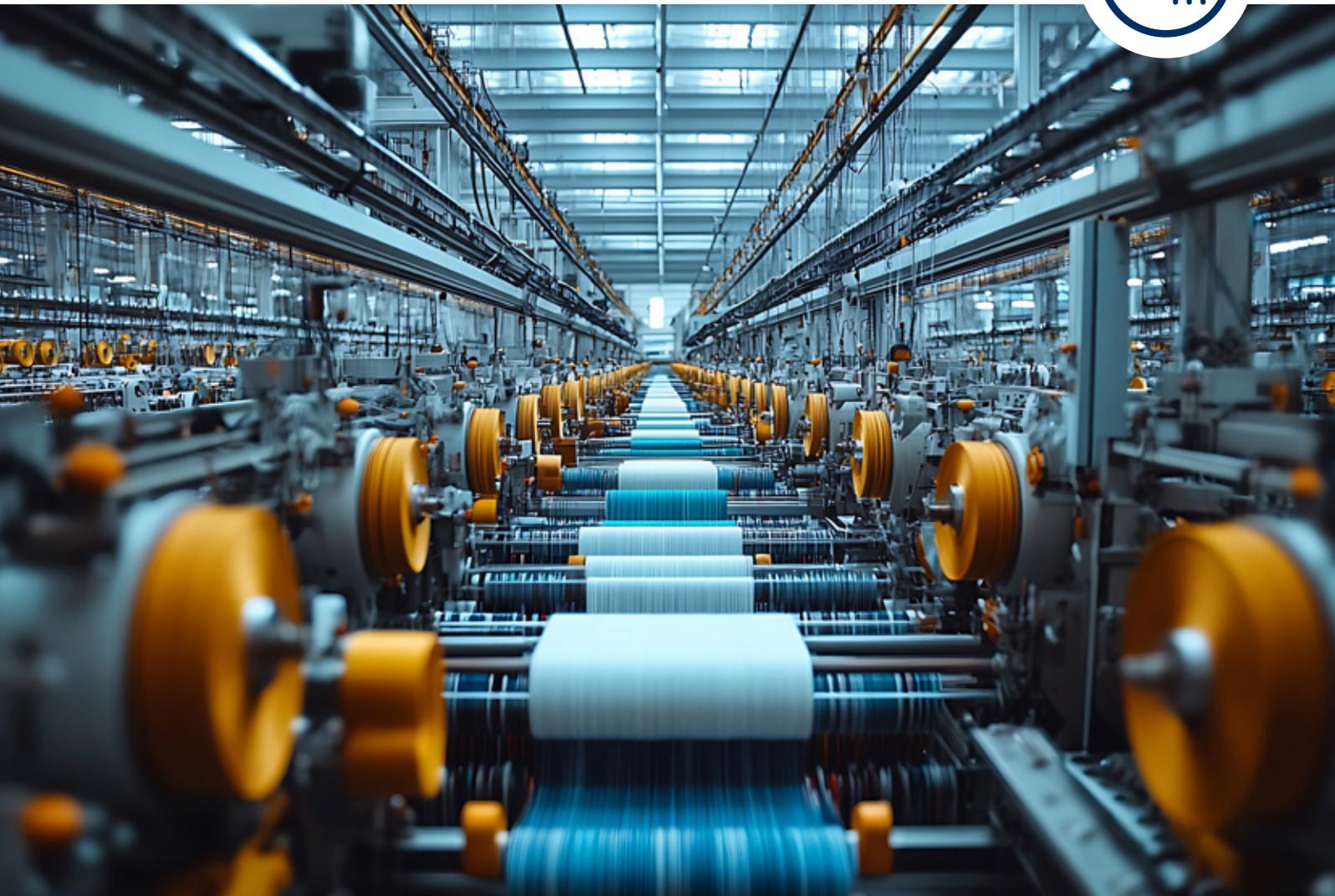


# INDUSTRIAL CLINICS FOR THE MACHINICAL PROCESSING OF MAN-MADE FIBERS





## PRECISION AND SHARPNESS – FOR YOUR SUCCESS!

Whether “razor-sharp” for the finest cuts or “extremely stable” for impact and pressure cuts: for more than 100 years, precision has been the philosophy of our company – in everything we think, produce and and deliver to our customers. Precision guides us from the idea the finished product to the optimum solution for every cutting cutting task. This is the only way we can meet the demands that our customers place on us. In every development and production step – blade by blade. To achieve this, we are committed to high quality, precision

to high quality, precision and sharpness in our work. We define all relevant parameters together with our customers parameters that are necessary to fulfill the individual requirements requirements – for greater sharpness and service life. In doing so always see ourselves as a partner to our customers and not only focus on current but also on future customer future customer requirements.

We want our customers to be successful, because their success is our success.

## FROM SOLINGEN TO THE WHOLE WORLD

More than 100 years ago, the history of the company LUTZ began in Solingen. Founded as a contract grinding shop for razor blades, the family business developed over

three generations to become an international and globally active manufacturer of industrial blades for a wide variety of applications applications in numerous industries.

**1922**

Foundation of  
LUTZ BLADES

**3**

Generations of  
Family business

**>380**

Motivated  
employees

**23.000**

Production area  
in m<sup>2</sup>

**>1.500**

Standard blades  
in the range

**>500**

Special blades  
in the range

# ÜBERALL IM EINSATZ

Blades from LUTZ BLADES are used in a wide range of applications – from food production and various industrial sectors to medical and laboratory applications, as well as the tool trade. Renowned companies rely on our expertise, precision, and the reliability of our blades. No matter the purpose for which you need a blade from LUTZ BLADES, you can rest assured that we will provide you with a product that meets your exact requirements.



# OUR CERTIFICATES



**ISO 13485:2016**



**DIN EN ISO 50001:2018**



**DIN EN ISO 9001:2015**



# STAPLE FIBER BLADES FOR THE BEST CUTTING RESULTS IN THE MAN-MADE FIBER INDUSTRY

Cutting man-made fibers places the highest demands on efficiency and quality. This applies to chopped strands as well as rovings and flat structures.

The production of man-made fibers is always a high-performance process. Whether it is staple fibers, filaments

or nonwovens: An excellent blade can have a decisive influence on efficiency and quality for every process, as it takes into account different diameters as well as preparation agents or impact loads due to thickening.

**Blades from LUTZ BLADES feature a wear-resistant alloy at the cutting edge.**

**Among others, we offer replacement blades for machines from the following manufacturers:**

**DM & E**

**Fleissner**

**Trützschler**

**Barmag/Rieter**

## YOUR BENEFITS

with **LUTZ BLADES** chemical fiber blades:

- Clean cut edges without edge build-up
- Reduced cutting dust
- Higher cutting speeds
- Increased productivity thanks to fewer blade changes

## DISTINGUISHING FEATURES OF

**LUTZ BLADES** chemical fiber blades:

- Premium-grade materials
- Compliance with the tightest tolerances
- Optimized hardness
- Selected high-performance coatings



# EXTRACT FROM THE RANGE

## CHEMICAL FIBER BLADES FROM LUTZ BLADES

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material
	RECTANGULAR BLADES						
	Staple fiber blade-3009	Rectangular blades	without	variable	8.00	0.30	carbon steel
	Mark-IV-Klinge 5000	Rectangular blades	without, DLC, TiAlN, TiN	74.60	15.60	0.88	stainless steel
	Mark-V-5010	Rectangular blades	without, DLC, TiAlN, TiN	117.60	15.60	0.88	stainless steel
	Staple fiber blade-5001	Rectangular blades	without	90.00	15.60	0.88	stainless steel
	Staple fiber blade-5007	Rectangular blades	without	100.00	15.60	0.88	stainless steel
	Staple fiber blade-5012	Rectangular blades	without	155.00	15.70	0.88	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material
	Staple fiber blade-5023	Rectangular blades	without, TiN	64.00	7.90	0.88	stainless steel
	Staple fiber blade-5029	Rectangular blades	without	74.60	15.60	0.88	stainless steel
	Fleissner-5033	Rectangular blades	without	140.00	19.00	0.88	stainless steel
	Staple fiber blade-5036	Rectangular blades	without, TiN	64.40	12.10	0.88	stainless steel
	Krupp-5040	Rectangular blades	without, DLC, TiAN, TiN	48.00	7.94	0.88	stainless steel
	Staple fiber blade-5050	Rectangular blades	without, TiAN, TiN	75.00	19.00	0.88	stainless steel
	Staple fiber blade-5051	Rectangular blades	without	95.00	19.00	0.88	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material
	Staple fiber blade-5056	Rectangular blades	without, DLC, TiN	64.00	7.90	0.88	stainless steel
	Staple fiber blade-5063	Rectangular blades	without	114.30	18.80	0.88	stainless steel
	Staple fiber blade-5069	Rectangular blades	without	80.00	19.00	0.88	stainless steel
	Staple fiber blade-5070	Rectangular blades	without, DLC, TiAlN, TiN	140.00	19.00	0.88	stainless steel
	Staple fiber blade-5091	Rectangular blades	without	69.85	19.05	0.88	carbon steel, stainless steel
	Staple fiber blade-5093	Rectangular blades	without, DLC, TiAlN, TiN	63.00	10.00	0.88	stainless steel
	Staple fiber blade-5097	Rectangular blades	without	20.00	19.00	0.88	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material
	Krupp-5102	Rectangular blades	without, TiAN, TiN	76.49	7.94	0.88	stainless steel
	Staple fiber blade-5118	Rectangular blades	without	304.80	19.05	0.63	carbon steel
	Staple fiber blade-5120	Rectangular blades	without, TiN	41.30	18.80	0.88	stainless steel
	Staple fiber blade-5129	Rectangular blades	without	230.00	8.00	0.70	carbon steel
	Staple fiber blade-5156	Rectangular blades	without	100.00	19.00	0.88	stainless steel
	Staple fiber blade-5190	Rectangular blades	without, TiN	54.25	18.98	0.88	stainless steel
	Staple fiber blade-7502	Rectangular blades	without, TiN	16.00	8.00	0.48	carbon steel
	<b>POINTED BLADE</b>						
	Pointed blade-9580	Pointed blade	without	60.00	6.40	1.20	HSS

# LUTZ BLADES PROTOTYPING TAILORED QUALITY

Do you need a blade that is precisely tailored to your individual cutting process—offering near-series quality even in small quantities? Our development department has the right solution: **Prototyping by LUTZ BLADES.**

## YOUR BENEFITS

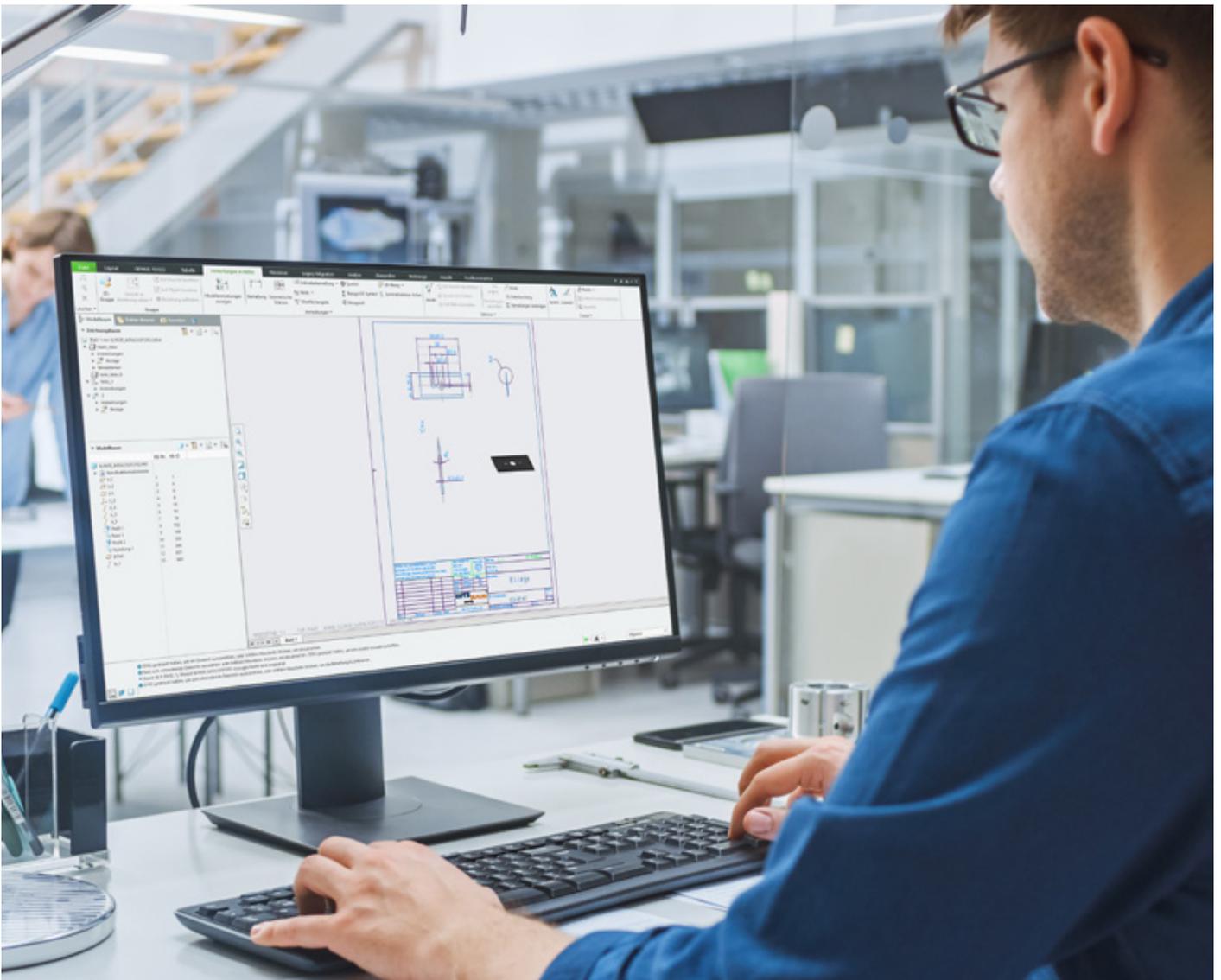
with **LUTZ BLADES Rapid Prototyping:**

- Near-series prototypes
- Maximum flexibility = customer-specific blades
- Small batch production possible
- Efficient and accelerated product development
- Blade development and optimization prior to series production

## DISTINGUISHING FEATURES

of **LUTZ BLADES Rapid Prototyping:**

- Blade geometry shaped using state-of-the-art machinery and CNC-based grinding of all radii
- In-process automated measurement and control of the tightest tolerances
- Customized heat treatment and coating



# OUR VERSATILE COATING PROGRAM

## TiN (Titan-Nitrid)

A standard hard material with high wear resistance and a relatively high coefficient of friction (against the reference material steel: approx. 0.4 to 0.7). Typically gold-colored. Safe application range: up to approx. 300 °C.

## TiC (Titanium Carbide)

Offers lower wear resistance compared to TiN but has a significantly lower coefficient of friction (approx. 0.3 to 0.5 against the reference material steel). Typically anthracite in color.

## TiCN (Titanium Carbon Nitride)

An intermediate coating material combining the high wear resistance of TiN with the low coefficient of friction of TiC. The properties vary depending on the C/N ratio. Typically anthracite in color.

## TiAlN (Titanium Aluminium Nitride)

Provides greater oxidation resistance than TiN, with a comparable coefficient of friction. Typically anthracite blue in appearance.

## DLC (Diamond-Like Carbon)

Features high wear resistance with a low coefficient of friction (approx. 0.1 against the reference material steel). Susceptible to impact loads and high temperatures (between 100 and 300 °C, depending on the structure).

## Blueing / Blackening

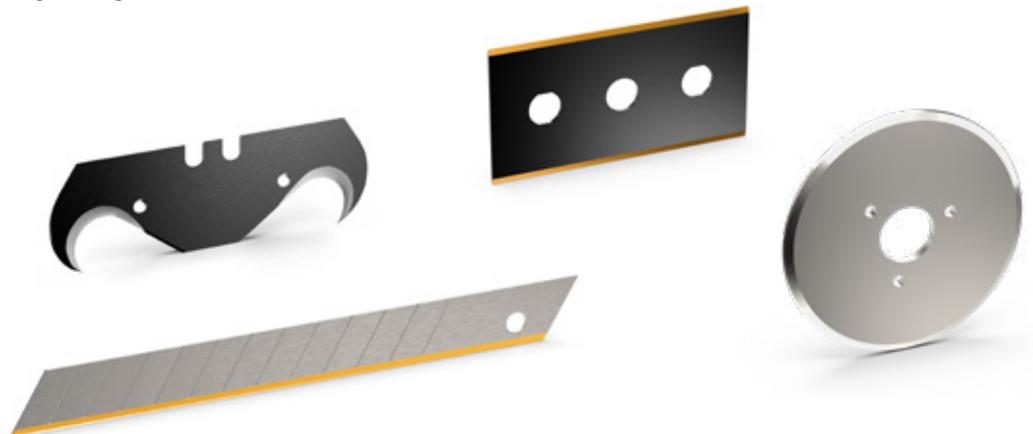
Applied over the entire surface, light corrosion and strength protection, also serves as a differentiation aid. Coatings on the cutting edges can also be combined with full-surface coatings to further improve wear protection.

## PTFE (Polytetrafluoroethylene) – Teflon®

A non-stick Teflon® coating (PTFE) that ensures practically no foreign bodies adhere to the cutting edge due to its extremely low surface tension. Resistant to acids and alkalis. Significantly reduces frictional resistance. Very low static friction allows for smooth, jerk-free cutting, making it ideal for medical applications. Has low wear resistance and is unsuitable for contact with sodium or temperatures above 250 °C. A full-surface treatment that provides light corrosion and starch protection. Also serves as a distinguishing aid.

## Color Varnish

Applied over the entire surface. Serves as a sorting aid for different material thicknesses and provides corrosion protection.



# THE GREAT SELECTION OF MATERIALS

Our product portfolio offers blades with thicknesses ranging from 0.06 to 3.0 mm and final hardnesses between 40 and 85 HRC.

Additionally, you benefit from a large selection of materials, including:

**CARBON STEEL**

**STAINLESS STEEL**

**HSS**

**BIMETALL**

**AUSTENITE**

**TUNGSTEN CARBIDE**

**CERAMIC**



## ALWAYS IN TOP SHAPE: THE CUTTING SHAPES OF OUR BLADES

What does the blade that achieves the best results for your application look like? Does the cutting edge need to work one-sided or twosided? Should it have one, two, or three facets? Does it need to be single-bladed or doublebladed? Concave or convex? Admittedly, that's a lot of questions.

But you can be certain that at LUTZ BLADES, you'll find exactly the right answer.

		1-sided			2-sided		
							
		Single-facet	Double-facet	Triple-facet	Single-facet	Double-facet	Triple-facet
1-bladed		A	B	C	D	E	F
2-bladed		G	H	I	J	K	L
convex		M	N	O	P	R	S
concave		T	U	V	W	X	Y

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