

INDUSTRIAL BLADES FOR MACHINE PROCESSING IN CARPET MANUFACTURING





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 ²	>1.500 Standard blades in the range	>500 Special blades in the range
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IN USE EVERYWHERE

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



WITH US, YOU WILL FIND THE BLADES THAT HELP YOU CUT SUCCESSFULLY

Since 1922, LUTZ BLADES has been manufacturing blades and knives for industrial applications – ranging from „razor-sharp“ for the finest cuts to „extremely stable“ for impact and pressure cuts. To find the optimal solution for every cutting task, we work closely with our customers to define all relevant parameters, ensuring individual requirements

are perfectly met – for greater sharpness and a longer service life. By combining task-specific materials, the tightest geometric tolerances, high-performance coatings, and three generations of experience, we provide exactly what our customers need: blades that last longer and cut more successfully.

THE PERFECT SYMBIOSIS: OUR PLUSH KNIVES IN COMBINATION WITH THE TEFLON® COATING

Cutting processes in the textile and carpet industry must be both extremely efficient and meet the highest quality standards. This applies both to the manufacture of carpets and to the cutting of technical and medical textiles.

Thanks to our many years of expertise and extensive experience, we have been supplying leading double weaving mills and manufacturers of technical textiles with specialized blades such as hook blades, plush knives, edge knives and other special blades for many years.

YOUR BENEFITS

with LUTZ BLADES blades and knives for carpet production:

- Many years of experience in the manufacture of industrial plush knives
- Absolutely consistent quality from blade to blade for successful set use
- Anti-friction coatings significantly extend the service life of the blades
- Cleanroom-suitable packaging - also available in customer packaging
- Industrial-grade packaging for safe and fast use of the blades on site

DISTINGUISHING FEATURES OF

our blades and knives for carpet production:

- Wide range of materials
- Extremely sharp and evenly ground cutting edges
- Uncoated and Teflon-coated versions (e.g. for plush knives)
- Degrees of hardness and cutting radii tailored to the application
- Tightest tolerances for blade geometry and cutting edge



EXTRACT FROM THE RANGE OF BLADES FOR CARPET MANUFACTURE FROM LUTZ BLADES

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material	
		Edge knife-1036	Trapezoid blades	without	81.00	24.80	1.00	HSS
	Plush knife-9629	Convex blades	without	85.00	38.00	0.25 – 0.45	stainless steel (soft)	
	Plush knife-9629	Convex blades	Teflon® (PTFE)	85.00	38.00	0.25 – 0.45	stainless steel (soft)	
	Plush knife-9630	Convex blades	without	56.00	44.00	0.25 – 0.45	stainless steel (soft)	
	Plush knife-9630	Convex blades	Teflon® (PTFE)	56.00	44.00	0.25 – 0.45	stainless steel (soft)	
	Plush knife-9632	Convex blades	without	56.00	44.00	0.25 – 0.45	stainless steel (hard)	
	Plush knife-9632	Convex blades	Teflon® (PTFE)	56.00	44.00	0.25 – 0.45	stainless steel (hard)	

	Article description	Blade shape	Coating	Length [mm]	Breite [mm]	Width [mm]	Material
	Plush knife-9635	Convex blades	without	57.50	44.00	0.25 – 0.45	stainless steel (soft)
	Plush knife-9635	Convex blades	Teflon® (PTFE)	57.50	44.00	0.25 – 0.45	stainless steel (soft)
	Plush knife-9636	Convex blades	without	57.50	44.00	0.25 – 0.45	stainless steel (hard)
	Plush knife-9636	Convex blades	Teflon® (PTFE)	57.50	44.00	0.25 – 0.45	stainless steel (hard)
	Tufting-9739	Convex blades	without	149.20	12.60	0.65 – 0.80	HSS

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.

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.

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).

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. .

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.

TiAlN (Titanium Aluminium Nitride)

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

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.

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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