LUTZ BLADES®
exactly

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BLADES FOR THE PRODUCTION **OF PLASTIC GRANULATES**

BLADES FOR FOR MECHANICAL USE **IN FILM PRODUCTION**

IN USE EVERYWHERE

Whether in the food industry, automotive manufacturing, medical technology, or skilled trades – LUTZ BLADES produces approximately 1,500 different standard blades for customers worldwide, as well as around 500 custom blades tailored to specific customer requirements.

INDUSTRY

- FILM PRODUCTION
- PLASTIC GRANULATE PRODUCTION
- CARPET PRODUCTION
- GLASS FIBER PRODUCTION
- AUTOMOTIVE INDUSTRY
- TEXTILE PRODUCTION
- MAN-MADE FIBER PRODUCTION

FROM SOLINGEN
TO THE WHOLE WORLD

The story of LUTZ began in Solingen more than 100 years ago. Originally founded as a contract grinding shop for razor blades, this family business evolved over three generations into an internationally recognized and globally active manufacturer of industrial blades, serving a wide range of applications across numerous industries.

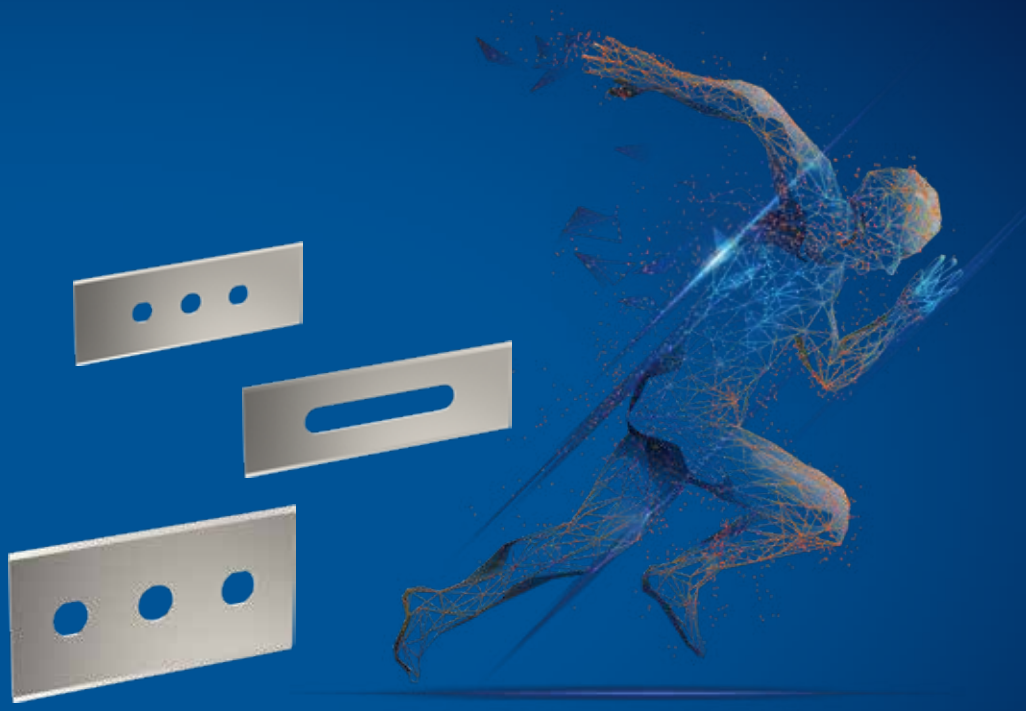
1922	3	>400	23,000	>1,500	>500
Foundation of LUTZ BLADES	Generations of Family business	Motivated employees	Production area in m²	Standard blades in our assortment	Special blades in our assortment

MARATHON COATING FOR MAXIMUM DURABILITY AND LOW FRICTION RESISTANCE

Ideal for abrasive cutting processes

Many blades can cut well. But cutting well and for a long time – that's where most blades fail to cross the finish line. Unless, of course, they are blades from LUTZ BLADES with MARATHON coating. As the name suggests, these blades are true long-
distance runners!

Blades with the MARATHON coating offer exactly these qualities. That's why they are the ideal choice for cutting abrasive foils in industry, where constant blade changes are undesirable.



HARD

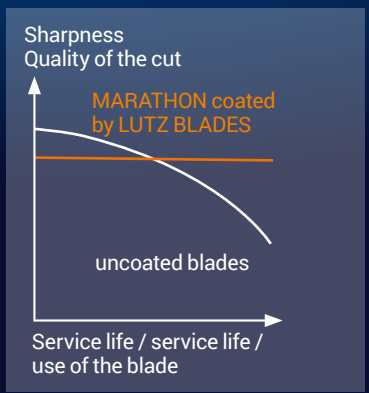
One application area is the processing of polypropylene raffia. In this process, additives are introduced into the material, which have an abrasive effect on the blades.

In such cases, the MARATHON coating ensures the blades remain resistant to wear and tear for as long as possible. A micrometer-thin hard coating provides high resistance to wear along with an exceptionally low coefficient of friction (approx. 0.1 against the reference material steel).

SHARP

The MARATHON coating is applied to the cutting edge with pinpoint precision, ensuring that the sharpness is maintained. At the same time, the hardness and durability of the blades are optimized.

Exemplary representation:
Cutting of PP / OPP / BOPP



DURABLE

The MARATHON coating from LUTZ BLADES turns blades into true long-distance runners. For example, this coating achieves a significantly longer service life compared to standard coatings like TiN or TiAlN. Even under intensive use, MARATHON-coated blades maintain their cutting performance and precision over time.

The MARATHON coating from LUTZ BLADES transforms blades into true long-distance runners.

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 RIGHT HIGH-PERFORMANCE BLADE **FOR EVERY FILM MACHINE**

No two films are the same. Some are tough and elastic at the same time. Others contain additives. And some must withstand impact loads and lateral forces. In short, film production is a truly high-performance process, requiring equally high-performance blades. LUTZ BLADES has been supplying leading film manufacturers with outstanding blades for years. Whether slotted blades, 3-hole blades, round blades, or precise custom shapes based on customer drawings, we process a wide variety of steels, corbon steel, carbide and ceramic. Our blades are meticulously tailored to each user's specific cutting task in terms of material, heat treatment, and cutting geometry.

LUTZ BLADES offers customized blade solutions for various machine types, including:

Atlas® **Goebel®** **Kampf®** **SMI / Lenzing®** **Windmöller & Hölscher®**
Barmag® **Brückner®** **Reifenhäuser®** **Starlinger®**

HOW YOU BENEFIT
from LUTZ BLADES foil blades:

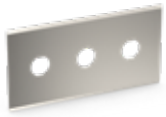
- Clean cutting edges without edge build-up
- Less cutting dust
- Higher cutting speeds
- Greater productivity due to fewer blade changes

HOW YOU DISTINGUISH
LUTZ BLADES foil blades:

- Best materials
- Compliance with the tightest tolerances
- Optimum hardness
- Selected high-performance coatings

PRODUCT RANGE OVERVIEW
FOIL BLADES BY LUTZ BLADES

	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	ROUND BLADES						
	round blade-0115	round blades	without	100.00	22.00	0.60 1.00	carbon steel
	round blade-0145	round blades	without	50.00	20.00	0.20	tungsten carbide
	round blade-0120	round blades	without, DLC, TiN	30.00	17.00	0.10	carbon steel
	round blade-0119	round blades	without, PTFE	45.00	10.00	0.50	tungsten carbide
	round blade-0108	round blades	without, PTFE, TiN	40.00	7.00	0.30	carbon steel
	round blade-0104	round blades	without, PTFE, TiN	30.00	5.00	0.30	stainless steel
	round blade-0129	round blades	without, TiCN, TiN	30.00	10.00	0.10	carbon steel
	round blade-0114	round blades	without, TiN	26.00	7.00	0.30	carbon steel
	round blade-0159	round blades	without, TiN	44.00	10.00	0.30	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	FOIL BLADES						
	foil blade-0400	3-hole-blades	without	43.00	22.20	0.08 – 0.40	carbon steel
	foil blade-0400	3-hole-blades	without	43.00	22.20	0.06 – 0.68	stainless steel
	foil blade-0400	3-hole-blades	DLC	43.00	22.20	0.10 – 0.40	stainless steel
	foil blade-0400	3-hole-blades	PTFE	43.00	22.20	0.13	stainless steel
	foil blade-0400	3-hole-blades	TiAlN	43.00	22.20	0.10 – 0.68	stainless steel
	foil blade-0400	3-hole-blades	TiN	43.00	22.20	0.10 – 0.40	stainless steel
	foil blade-0403	3-hole-blades	without	43.00	22.20	0.10 – 0.30	carbon steel, stainless steel
	foil blade-0410	3-hole-blades	without	43.00	22.20	0.08 – 0.68	carbon steel
	foil blade-0410	3-hole-blades	without	43.00	22.20	0.06 – 0.68	stainless steel
	foil blade-0410	3-hole-blades	DLC	43.00	22.20	0.10 – 0.68	stainless steel
	foil blade-0410	3-hole-blades	PTFE	43.00	22.20	0.10 – 0.40	stainless steel
	foil blade-0410	3-hole-blades	TiAlN	43.00	22.20	0.08 – 0.40	stainless steel

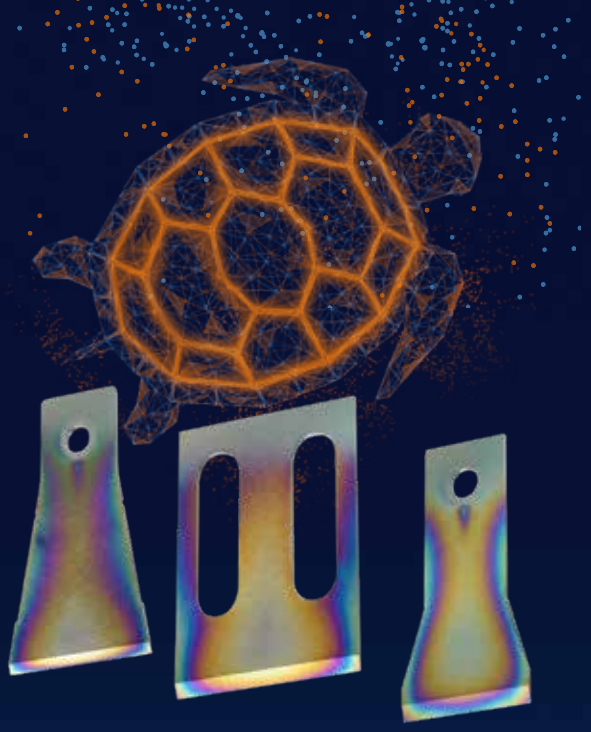
	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	foil blade-0410	3-hole-blades	TiN	43.00	22.20	0.06 – 0.40	stainless steel
	foil blade black -1533	3-hole-blades	ohne	43.00	22.20	0.20 0.30	carbon steel
	foil blade black -1533	3-hole-blades	TiN	43.00	22.20	0.20 0.30	carbon steel
	foil blade-0505	3-hole-blades	without, DLC, TiN	43.00	22.00	0.10 – 0.65	tungsten carbide
	foil blade-0600	3-hole-blades	without	60.00	22.20	0.10 – 0.40	carbon steel, stainless steel
	foil blade-0600	3-hole-blades	DLC	60.00	22.20	0.15 – 0.30	stainless steel
	foil blade-0600	3-hole-blades	TiAIN	60.00	22.20	0.10 – 0.30	stainless steel
	foil blade-0600	3-hole-blades	TiN	60.00	22.20	0.10 – 0.30	stainless steel
	foil blade-0700	slotted-hole-blades	without	59.00	18.80	0.40	carbon steel, stainless steel
	foil blade-0700	slotted-hole-blades	DLC, TiAIN, TiN	59.00	18.80	0.40	stainless steel
	foil blade-0705	slotted-hole-blades	without	57.00	18.80	0.40	carbon steel, stainless steel
	foil blade-0705	slotted-hole-blades	DLC, TiAIN, TiN	57.00	18.80	0.40	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	foil blade-0707	slotted-hole-blades	without, DLC	57.70	18.80	0.40	tungsten carbide
	foil blade-0709	slotted-hole-blades	without, TiAlN, TiN	57.00	18.80	0.38	carbon steel
	foil blade-0710	slotted-hole-blades	without	57.00	18.80	0.40	carbon steel, stainless steel
	foil blade-0710	slotted-hole-blades	DLC, TiAlN, TiN	57.00	18.80	0.40	stainless steel
	foil blade-0711	slotted-hole-blades	without	57.00	19.10	0.40	carbon steel, stainless steel
	foil blade-0711	slotted-hole-blades	DLC, TiAlN, TiN	57.00	19.10	0.40	stainless steel
	foil blade-0713	slotted-hole-blades	without, TiAlN, TiN	57.15	19.05	0.63	stainless steel
	foil blade-0717	slotted-hole-blades	without, DLC, TiN	57.70	19.15	0.63	stainless steel
	foil blade-0729	slotted-hole-blades	without, PTFE	57.15	19.05	0.63	tungsten carbide
	foil blade-0763	slotted-hole-blades	without, TiN	57.25	18.50	0.40	stainless steel

	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	foil blade-0810	3-hole-blades	without	80.00	22.20	0.20	carbon steel, stainless steel
	foil blade-0810	3-hole-blades	DLC, TiN	80.00	22.20	0.20	stainless steel
	foil blade-0812	3-hole-blades	without	100.00	22.20	0.20	carbon steel, stainless steel
	foil blade-0812	3-hole-blades	DLC, TiAlN, TiN	100.00	22.20	0.20	stainless steel
	foil blade-1505	3-hole-blades	without	43.00	22.20	0.10 – 0.40	ceramic
	PENTAGONAL BLADES						
	pentagon-2650	pentagonal blades	without	63.00	40.94	0.53	tungsten carbide
	pentagon-2651	pentagonal blades	without	63.00	40.94	0.53	ceramic
	INJECTOR BLADES						
	injector blade-6030	rectangular blades	without	38.00	7.95	0.254	carbon steel, stainless steel
	injector blade-6030	rectangular blades	DLC, PTFE, TiAlN, TiN	38.00	7.95	0.254	stainless steel
	injector blade-6036	rectangular blades	without	38.00	7.92	0.254	stainless steel

CARAPAXX

coated by LUTZ BLADES



THE CARAPAXX COATING

Long-lasting protection like a turtle shell

Reliable processes are crucial for efficient production. In many demanding industries, the longevity of the blades is particularly important.

With its innovative Carapaxx coating, LUTZ BLADES offers the ideal solution for maximizing blade service life and thus making processes more efficient and economical. At the same time, the innovative coating is the first to be free of PFAS – hazardous plastic particles that can remain in the environment for decades.

LUTZ BLADES offers customized blade solutions for various machine manufacturers, such as:
Erema® | NGR® | Starlinger®

They offer the following advantages:

- ✓ Durable
- ✓ Non-stick
- ✓ Environmentally friendly
- ✓ Increases efficiency
- ✓ Extends service life
- ✓ Improved planning

"BLADES FOR ETERNITY" – AND FOR THE FIRST TIME WITHOUT "ETERNAL CHEMICALS PFAS"

With Carapaxx coating, we deliberately avoid using the otherwise common additive PFAS, which is also known as the "forever chemical." The reason is obvious: PFAS particles remain in the environment and enter animals and humans via water, food, and air. Thanks to our innovative design, we offer an environmentally friendly alternative with the same performance without causing problematic environmental and health consequences.

WHAT SETS OUR CARAPAXX COATING APART

Precise cuts thanks to non-stick function

Residue on blades is a critical factor for service life, efficiency, and quality. Thanks to a special non-stick function, the Carapaxx coating prevents product residue from remaining on the blade during cutting. This advantage is particularly evident in granulation processes: friction resistance is significantly reduced, enabling smooth cutting of plastics. This results in uniform granules and, above all, minimizes potential production interruptions.

These properties also ensure that granulation blades with Carapaxx coating need to be cleaned or replaced less frequently.

Twice as durable thanks to top quality

For extremely demanding applications, the innovative Carapaxx coating alone is not enough for us. That is why we combine it with high-quality materials such as carbon steel or bimetal.

This combination proves to be unbeatable, especially for granulating blades. In combination with the Carapaxx coating, granulate production becomes significantly more trouble-free and therefore easier to plan. As this extends the service life of the blades, costs are reduced while production capacity increases.

This increases profits and generates valuable competitive advantages.

SPECIAL CUTTING APPLICATIONS FOR **PLASTIC GRANULATE PRODUCTION**

In the plastics processing industry, granulates are used for manufacturing plastic parts, in film production, as fillers in concrete, and as carrier materials in the pharmaceutical and cosmetic industries. The recycling industry has also become a producer of plastic granulates, providing a valuable service in the circular economy.

Our granulating blades, also known as pelletizer blades, are used at the end of the manufacturing process to cut plastics into granules. LUTZ BLADES has many years of experience in manufacturing industrial blades for a variety of industries, offering a wide range of different blade geometries. Naturally, we also develop and produce customer-specific special blades.

For LUTZ BLADES granulating blades, only high-quality materials are used: they are made of carbon steel or bimetal, with an especially hard and wear-resistant alloy on the cutting edge.

LUTZ BLADES offers customized blade solutions for various machine manufacturers such as

Erema® **NGR®** **Starlinger®**

HOW YOU BENEFIT

From LUTZ BLADES granulating blades:

- Clean cutting edges without edge build-up
- Less cutting dust
- Higher cutting speeds
- Increased productivity due to fewer blade changes

WHAT MAKES

LUTZ BLADES granulating blades stand out:

- Best materials
- Compliance with tightest tolerances
- Optimal hardness
- Selected high-performance coatings

PRODUCT RANGE OVERVIEW
PELLETIZING BLADES BY LUTZ BLADES

	Article description	Blade shape	Coating	Length [mm]	Width [mm]	Thickness [mm]	Material
	RECTANGULAR BLADES						
	pelletizing blade-1400	rectangular blades	without	46.00	24.20	1.00	bimetal
	pelletizing blade-1402	rectangular blades	without	46.00	12.80	0.63	carbon steel
	pelletizing blade-1406	rectangular blades	without	46.00	24.00	0.80	bimetal
	pelletizing blade-1408	rectangular blades	without	46.00	24.00	1.00	bimetal
	pelletizing blade-1411	rectangular blades	without	44.00	20.00	0.80	bimetal
	pelletizing blade-1412	rectangular blades	without	46.00	13.20	1.00	bimetal
	pelletizing blade-1426	rectangular blades	without	46.00	45.00	1.00	bimetal
	pelletizing blade-1440	rectangular blades	without	45.00	30.00	0.80	bimetal
	pelletizing blade-1452	rectangular blades	without	46.00	13.20	0.80	bimetal

DISPENSER AND **PACKAGING SYSTEMS**

LUTZ blades are high-precision cutting tools that place special demands on transport and handling throughout the entire supply chain – from the manufacturer to the specialist retailer to the end user. For this reason, LUTZ BLADES has developed various dispenser and packaging systems that reliably fulfill several key functions.
Since we develop and manufacture our dispenser systems ourselves, we can respond flexibly and specifically to individual customer requirements. All systems are optimally tailored to the respective blade types and areas of application.

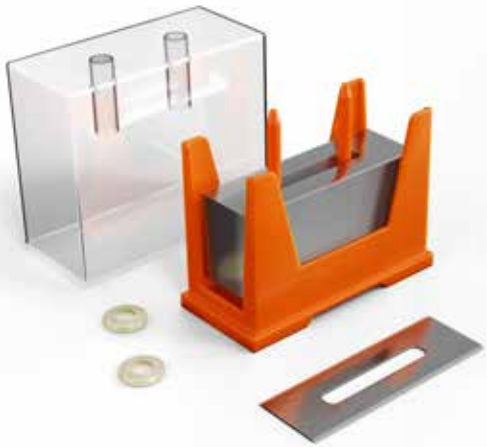
In addition, we offer a wide range of other standard packaging options, including soft plastic bags, small cardboard packaging, poly bags, and much more.

PROTECTIVE FUNCTION
Protects sharp blades from damage and protects the user from injury

STORAGE
Space-saving and clear storage of multiple blades

HANDLING
Easy and safe removal of individual blades without direct contact with the cutting edge

TRANSPORT
Safe transport without damaging the blades or risk of injury



SICHERHEIT ZUERST (SZ)
Packaging for safe removal and disposal of individual pointed and deburring blades. The used blade can be inserted into the SZ dispenser at the bottom for safe disposal. The SZ dispenser consists of four components and is available in three sizes and different colors, which are assigned to the respective blade types.

PARTNER PACK (PP)
Variable packaging for larger quantities of long and 3-hole blades and granulating blades. The packaging consists of at least four components and is available in three sizes and various colors. The color coding is assigned to a specific material and blade thickness.

SAFE PACK (SP)
The large packaging is particularly suitable for the safe transport of round and pentagon blades. The SAFE PACK consists of up to five components and, by changing the inner elements, is available in 31 variants in white.

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.

CrN (Chrom-Nitrid)

A hard, corrosion-resistant, and thermally stable PVD coating characterized by low friction coefficients and excellent non-stick properties. It has a low friction coefficient (approx. 0.57 compared to steel). Approved for food processing.

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 („lusonieren“)

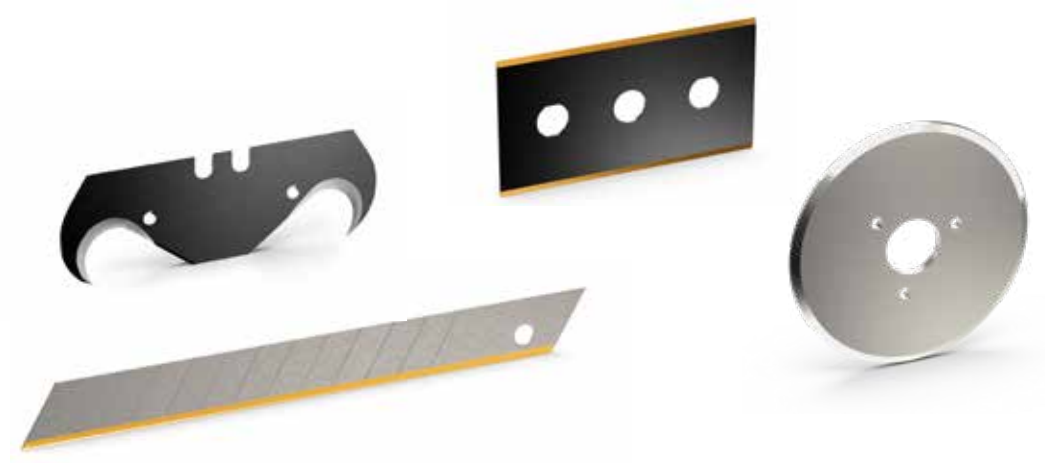
A full-surface treatment that provides light corrosion and starch protection. Also serves as a distinguishing aid.

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.

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 two-sided? Should it have one, two, or three facets? Does it need to be single-bladed or double-bladed? 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

LUTZ BLADES®
exactly

HEADQUARTERS

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