

# LEUCO

**nn-SYSTEM  
SAW BLADES  
THE „NO-NOISE  
SAW BLADES“**

**LEUCO**  
*nn system*

shhhhhh! T-ccc!  
chuuut!  
**PSSSSST!**  
ssst! 嘘! ciiiiiiii!



# → THE NOISIEST PLACE IS AT THE SAW

**PRACTICALLY NOTHING MORE CAN BE HEARD**

**THEY CAN'T GET ANY QUIETER WITHOUT INCREASING THE RISK OF INJURY**

## ?! DID YOU KNOW?

Quotations from visitors to the LEUCO exhibition booth

### UP TO NOW

Noise emissions in our industry segment: According to the EU Directive „Noise“, companies are **obliged to provide** hearing protection for workplaces with a noise level **higher than 80 dB**. From **85 dB on**, employees are **required to wear hearing protection**.

Most workplaces in the woodworking and furniture industry as well as in joineries exceed the noise level of 85 dB. The **noisiest production steps** are „sawing“ and „planing“ with noise levels between **83 and 103 dB**, followed by milling with 82 to 94 dB.

### NOISE FORMATION

Noise is caused either by idle running of the tools or during operation. In the case of saw blades there is a lot of time when the machine is idling and the saw blade is just rotating without touching the workpiece material. Nevertheless, noises arising during idling can be louder than during operation. This is the case with so-called „whistling“ saw blades.

### What is it about?

Thanks to a radical minimization of gullets LEUCO succeeded in reducing the noise of idling diamond-tipped saw blades by up to 6 dB(A) compared to conventional diamond-tipped saw blades.

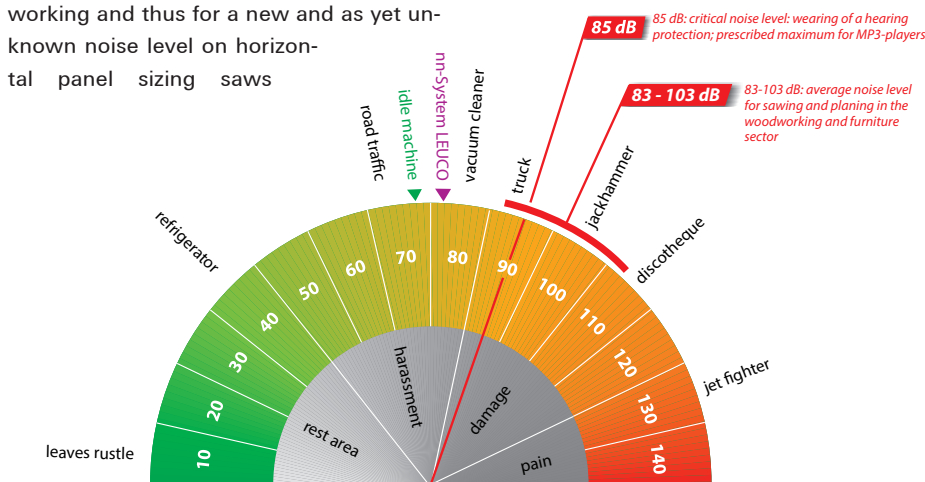
### Is there really „no noise“?

The name of the saw blade program „NoNoise“ is not to be mixed up with no noise at all. It stands for no nerving noises when working and thus for a new and as yet unknown noise level on horizontal panel sizing saws

which will certainly be appreciated by the machine operators.

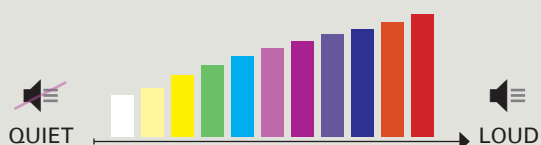
### And this works in practice?

Yes. The small gullets have proven effective for more than two years in the case of chop saw blades for edge trimming. LEUCO has now applied this principle to its „nn-System DP Flex“ diamond-tipped sizing saw blades.

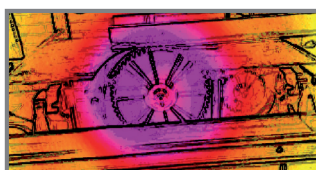


## → MAKING NOISE VISIBLE - COMPARISON OF THE STANDARD VS. LEUCO nn-SYSTEM SAW BLADES

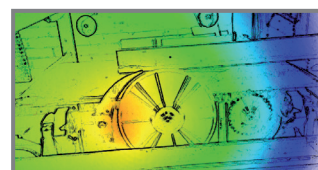
An acoustic camera is a completely new technology for making sound visible. In a manner similar to that of a weather map or thermographic image, the fields of identical noise levels are displayed in the same color: white for quiet and red for loud.



### ▶▶ MEASUREMENT ON A HOLZ-HER TABLE SAW, SPEED 3000 RPM:



**Tungsten-carbide tipped standard saw blade**  
D=350 mm, „WS“ tooth geometry, Z = 54, cutting width = 3.5 mm



**Diamond-tipped LEUCO nn-System saw blade**  
D=350 mm, „HR“ tooth geometry, Z = 60, cutting width = 2.5 mm

# → NEW: NN-SYSTEM DP FLEX THE „NO-NOISE SAW BLADES“

## → DATA PROFILE

### NN-SYSTEM DP FLEX SAW BLADE

- ▶▶ The new "LEUCO nn-System DP Flex" saw blades all have ...
  - ... extremely small chip gullet spaces! And are extremely quiet when idling and during operation! With a noise level of just around 70 dB(A) when idling, the wearing of hearing protection is virtually a thing of the past.

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- ▶▶ They surprise the industry by their ...
  - ... usability in numerous materials

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- ▶▶ and impress their users by their ...
  - ... super cutting quality thanks to their special hollow back tooth configuration (HR); Exception: Scoring saw blades: WS tooth configuration

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- ▶▶ And to top it off, they are surprisingly thin! The ...
  - ... cutting width is a mere 2.5 mm

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- ▶▶ The blades generate noticeably ...
  - ... lower cutting pressure and therefore also require less power during usage

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- ▶▶ The edge lives are measurably ...
  - ... longer thanks to the diamond tips

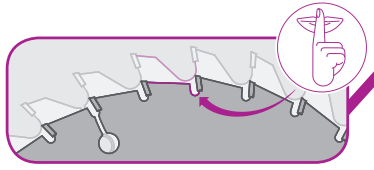
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- ▶▶ Users profit from the "LEUCO nn-System DP FLEX" on ...
  - ... many types of machines such as table saws and chop saws, vertical panel sizing saws, CNCs and through-feed installations.

APPLIED FOR PATENT



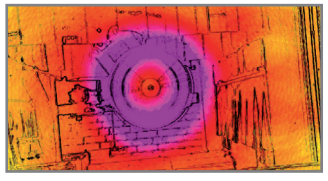
DP FLEX



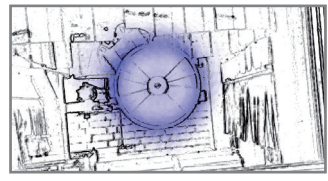
### WITH THE ACOUSTIC CAMERA

HEAR, HEAR!

#### ▶▶ MEASUREMENT ON MAKA CNC-BAZ, SPEED 4500 RPM:



**Diamond-tipped standard saw blade (without nn-system design)**  
D=303 mm, „HR“ tooth geometry, Z = 60, cutting width = 2,5 mm

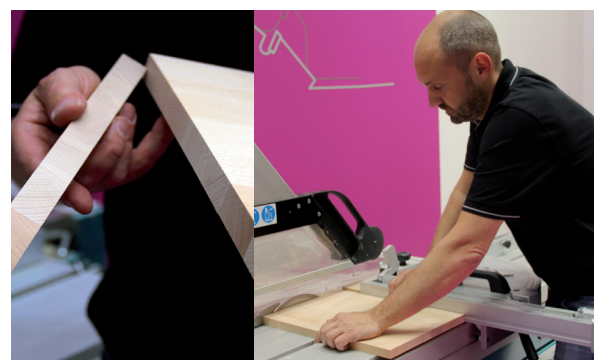


**Diamond-tipped LEUCO nn-System saw blade**  
D=303 mm, „HR“ tooth geometry, Z = 60, cutting width = 2,5 mm

# → TOP CUTTING QUALITY & LONG EDGE LIVES

## → ADVANTAGE: CUTTING QUALITY

- Excellent cutting quality thanks to the innovative „HR” tooth geometry for the main saw blade.
- In addition to this, the hollow back tooth noticeably reduces the cutting pressure while enabling work with nearly no backlash.
- The saw blade design guarantees excellent cutting quality for nearly all wooden panels, even those with high-gloss coatings and those made from solid timber.
- In line with the main saw blades, the diamond-tipped scoring saw blades and conical alternate top bevel teeth are also available for two-sided crack-free cuts.



Perfect cutting quality for ripping and cross cuts in solid woods ranging from coated panel materials all the way up to plastics, abrasive materials, mineral materials and cement fiber composites.

## → ADVANTAGE: EXTREMELY LONG EDGE LIVES



- The „LEUCO DIAMAX” quality tipping ensures extremely long edge lives, around 15 to 20 times those of tungsten-carbide tipped blades.
- Can be resharpened (up to 2 times).



Foto by Helena Kristianissson

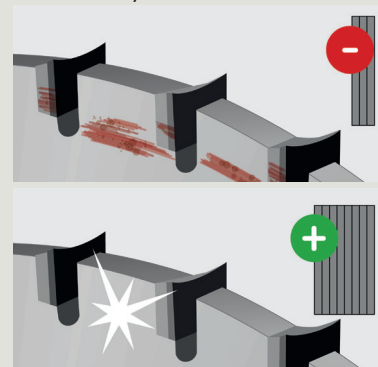
One of our customers used the new nn-system sizing saw blade for part of his work in manufacturing this studio setup.

## → OUR HINT

### LONGER EDGE LIFE THANKS TO DIAMOND

Clean your „nn-System DP Flex” circular saw blades on a regular basis.

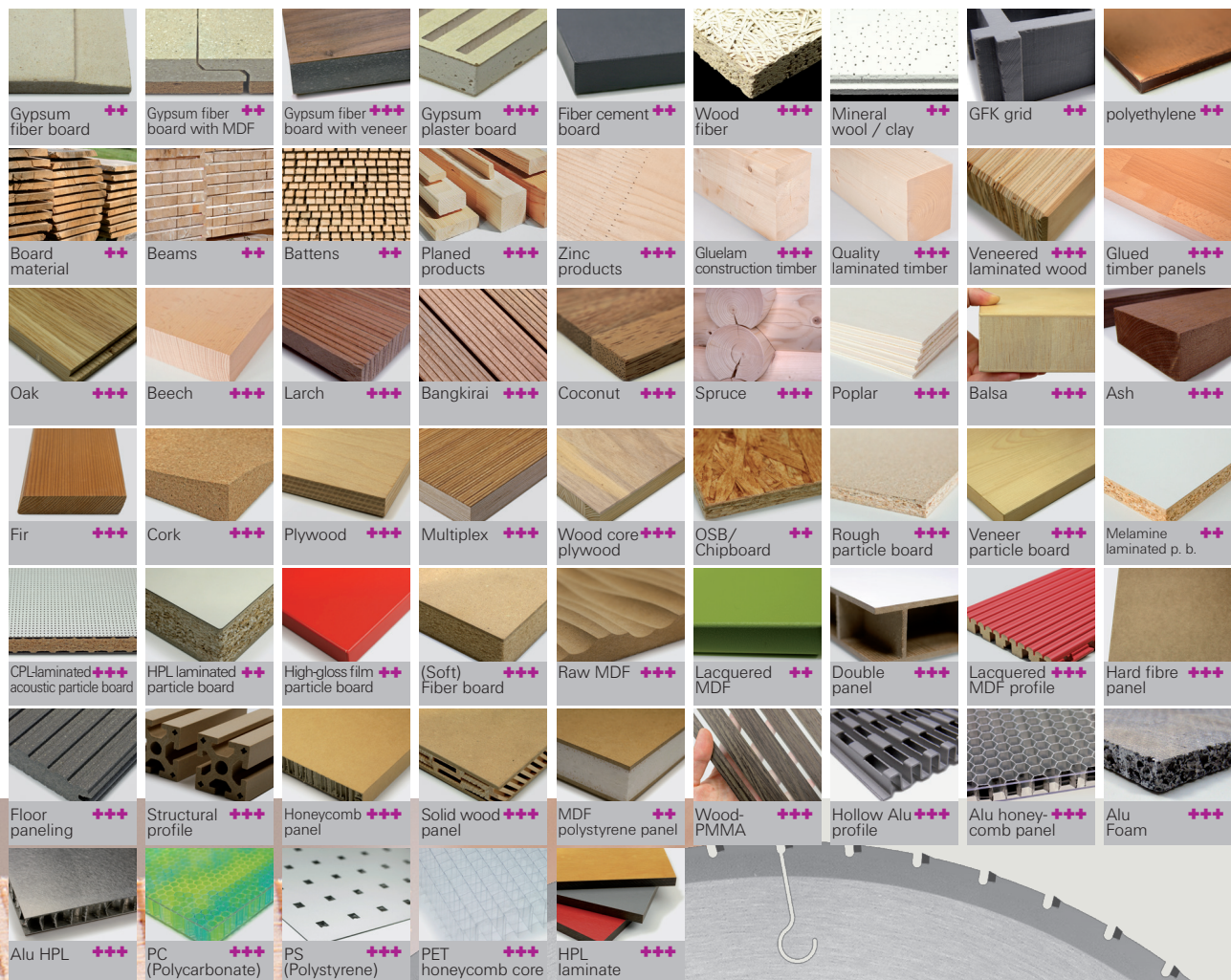
You will profit from a long-lasting and precise cutting quality and maximize the edge lives of your innovative saw blades many times over.



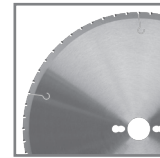
# → PERFECTLY SUITED FOR MANY MATERIALS

The design (tooth geometry and tool body design) guarantees universal application in almost all conventional wood-based panels as well as solid woods and is characterized by an excellent cutting quality. The vast number of materials recommended for processing make this clear:

+++ very well suited  
 ++ well suited



# → TRIMMING / SIZING



## → nn-SYSTEM – MAIN SAW BLADES

Ø D [mm]	B [mm] Cutting width	b	d [mm]	Z	NL	Tooth- shape	Machine / designation	Ident-No.
250	2.5	2.0	30	50	COMBI2	HR		192440
254	2.5	2.0	15.875	50		HR	USA	192441
260	2.5	2.0	30	60	COMBI2	HR	with pin holes	192442
280	2.5	2.0	30	60	COMBI2	HR		192443
303	2.5	2.0	30	60	COMBI2	HR		192444
315	2.5	2.0	30	64	COMBI2	HR		192445
350	2.5	2.0	30	72	COMBI2	HR		192446

COMBI2 = 2/7/42 + 2/9/46 + 2/10/60



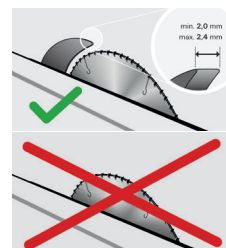
## → SUITABLE nn-System -SCORING SAW BLADES

Ø D [mm]	B [mm] Cutting width	b	d [mm]	Z	NL	Tooth- shape	Machine / designation	Ident-No.
120	2.6	2.0	22	24		WS		192447
120	2.6	2.0	20	24		WS		192448
125	2.6	2.0	20	24		WS		192449
120	2.4-3.2	2.0	20	12+12		WS	adjustable	192450
120	2.4-3.2	2.0	22	12+12		WS	adjustable	192451
120	2.4-3.2	2.0	50	12+12		WS	Altendorf Rapi- do/ adjustable	192452



## → A SPLITTING WEDGE FROM LEUCO TO FIT YOUR MACHINE (please order separately)

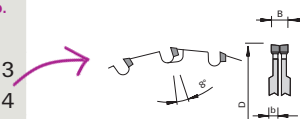
for Ø D	d in [mm]	Machine	Ident-No.
300-350	2.25	Altendorf F45	192425
240-250	2.25	Holz-Her Vertical	192429
300-350	2.25	Striebig Standard III Control Evolutionw	192430
300-350	2.25	Striebig Standard Eco	192431
300	2.25	Putsch	192457
250-350	2.25	Martin T60A	192535



The thickness of the splitting wedge for these saw blades must be between 2.0 and 2.4 mm.

## → OUR HINT: MAKE USE OF THE BENEFITS OF THE nn-SYSTEM SCORING SAW BLADE ALSO IN COMBINATION WITH YOUR STANDARD MAIN SAW BLADES! WITH CUTTING WIDTHS OF 3.2 - 3.5 MM

Ø D [mm]	B [mm] Cutting width	b	d [mm]	Z	NL	Tooth- shape	Machine / designation	Ident-No.
120	2.8-3.6	2.0	20	12+12		WS	adjustable	192453
120	2.8-3.6	2.0	22	12+12		WS	adjustable	192454
120	2.8-3.6	2.0	50	12+12		WS	Altendorf Rapi- do/ adjustable	192455



# → TRIMMING

## → nn-SYSTEM - TRIMMING AND SIZING ON THE CNC

Ø D [mm]	B [mm] Cutting width	b	d [mm]	Z	NL	Tooth- shape	Machine / designation	Ident-No.
180	2.5	2.0	30	36	4/6/52	HR	Homag, Weeke	192432
200	2.5	2.0	30	40	8/6/52	HR	Homag	192433
200	2.5	2.0	30	40	2/6.2/42 +4/6.6/60	HR	IMA	192434
220	2.5	2.0	30	44		HR		192435
220	2.5	2.0	40	44	8/6/52	HR	Homag, Weeke	192436
240	2.5	2.0	30	50	8/6/52	HR	Homag	192437
240	2.5	2.0	40	50	8/6/52	HR	Homag, Weeke	192438
240	2.5	2.0	30	50	2/6.2/42 +4/6.6/60	HR	IMA	192439



## → nn-SYSTEM - TRIMMING ON THROUGH-FEED MACHINES

Ø D [mm]	B [mm] Cutting width	b	d [mm]	Z	NL	Tooth- shape	Machine	Ident-No.
100	2.5	2	22	10	2/4/30	HR	EBM, Felder/ Lohmeyer	195543
100	2.5	2	32	10		HR	Brandt	192544
110	2.5	2	22	24		HR	Reich	192551
110	2.5	2	22	20		HR	Reich	192552
120	2.5	2	40	24	8/6/52	HR	Homag	192541
120	2.5	2	40	36	2x4/5.5/52	HR	Homag	192553
125	2.5	2	30	36	2x4/6.5/48	HR	Homag, BAZ	192554
125	2.5	2	40	24	2x4/5.8/60	HR	Brandt	192549
140	2.5	2	16	36		HR	Ott	192545
160	2.5	2	22	36		HR	IMA	192546
160	2.5	2	22	48		HR	IMA	192547
160	2.5	2	30	24	2/7/42	HR	HolzHer	192555
170	2.5	2	30	36	4/5.5/52	HR	Homag	192542
180	2.5	2	22	42		HR	IMA	192550
180	2.5	2	30	54	4/6/52	HR	Homag, BAZ	192556
200	2.5	2	30	64	4/6.6/60 + 2/6.2/42	HR	IMA	192548



**LEUCO**  
nn system

## → TEST IT HERE

**YOU CAN HEAR THAT NOTHING  
DISTRACTS YOU:**

We measured the noise level of a standard diamond-tipped saw blade, the new "nn-System DP Flex" saw blade, and the idling machine at 4500 rpm in each case.

### **This is how it works:**

Read the QR-code with a smartphone. You will be connected with a www address and can listen to the different noise levels of the saw blades.

→ The new "LEUCO nn-System DP Flex" saw blade is clearly quieter.



Machine idling  
without saw blade,  
69.6 dB (A)



Standard: diamond-coated  
saw blade, cutting width  
3.2 mm, 88 dB(A)



LEUCO nn-System DP Flex,  
diamond-tipped  
Saw blade, cutting width  
2.5 mm, 72.6 dB(A)



**HEAR,  
HEAR!**



APPLIED  
FOR  
PATENT

The gullet and tooth size  
are at a scale of 1:1 in  
the photo for a saw blade  
diameter of 303 mm.

## CONTACT

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