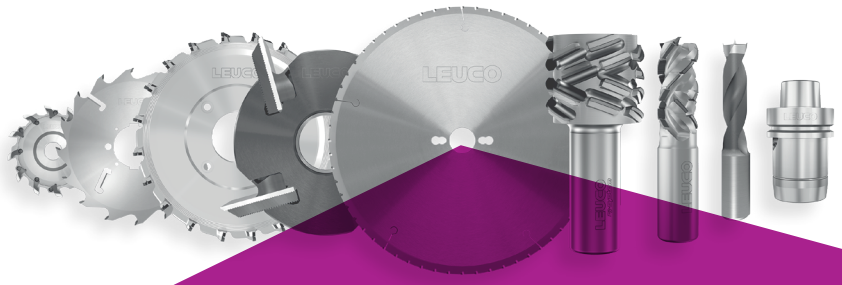
LEUCO
MAGENTIFY WOOD PROCESSING

TOOL RECOMMENDATION

Manufacturer
EGGER

Material
PerfectSense® Lacquered Boards



LEUCO
Ledermann GmbH & Co. KG
Willi-Ledermann-Straße 1
72160 Horb am Neckar / Deutschland

T +49 (0)7451/930

info@leuco.com
www.leuco.com

Version 10/2026

TOOL RECOMMENDATION
EGGER PerfectSense® Lacquered Boards

The following tool recommendation is based on a wide variety of test series by LEUCO Ledermann GmbH & Co. KG, with the best processing results in each case.

1. Trimming cut / sizing 3

1.1 Trimming the panels with circular saw blades 3

1.2 Recommended saw tooth shapes 3

1.3 Sizing saws 3

1.4 Panel sizing saws 3

1.5 Through-feed hogger systems 4

2. Milling / edge processing 4

3. Processing on stationary CNC machines 4

4. Drilling 5

5. Formulas 5

5.1 Cutting speed – vc 5

5.2 Tooth feed – fz 5

5.3 Feed speed – vf 5

6. LEUCO tools for processing EGGER PerfectSense® Lacquered Boards 6

6.1 Circular saw blades for sizing saws 6

6.2 Circular saw blades for panel sizing saws 6

6.3 Hoggers 6

6.4 Jointing cutters 7

6.5 CNC shank-type cutters 7

6.6 Dowel drill bits, through-hole drill bits and cylinder boring bits 7

DEFINITION OF TERMS:

DP = Diamond (formerly DIA); **HW** = carbide; **HR** = hollow back; **L-S** = slow, fast; **L-S-L** = slow, fast, slow; **vc** = cutting speed; **fz** = tooth feed; **vf** = Feed speed

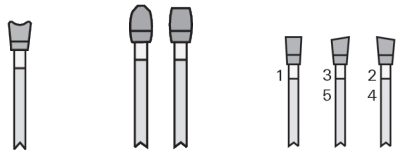
1. TRIMMING CUT / SIZING

1.1 TRIMMING OF THE PANELS WITH CIRCULAR SAW BLADES

Several factors contribute to a good cutting result:

- The decorative side must be on the entry side
- Correct saw blade projection, feed speed, tooth configuration, tooth partition, rotations per minute, and cutting speed.

1.2 RECOMMENDED SAW TOOTH SHAPES



HR FA TR-F-K G5

1.3 SIZING SAWS

In general, the panels can be processed with HW circular saw blades and, with some minor compromises, also with DP saw blades. The best cutting results are achieved with a HW circular saw blade featuring TR-F K geometry - the "TR-F K" HW circular saw blade with anti-fingerprint coating. However, this will likely require more effort to clean the tooth sides. Equally good cutting results can also be achieved with a HW circular saw blade featuring the G6 geometry.

Optimal application data: (for a circular saw blade with a diameter of 300 mm)

Saw blade projection:	ü = 40 mm
Rotations per minute:	n = 4000 1/min
Feed rate = manual:	vf = 3-8 m/min
Cutting speed:	vc = 40-50 m/s

1.4 PANEL SIZING SAW

On panel sizing systems, panels can generally be divided using any standard HW panel sizing saw blade. However, there are differences in cutting quality. For a nearly excellent finished cutting quality, the panel should be trimmed using a panel-cutting circular saw blade from the Q-Cut TR-F K series. A similarly good result can be achieved with a saw from the Q-Cut G5 series. However, a shorter edge life should be expected in this case.

Optimal application data: (for a circular saw blade with a diameter of 350 mm)

Saw blade projection:	ü = 40 mm
Rotations per minute:	n = 3600 1/min
Feed:	vf = 20-30 m/min
Cutting speed:	vc = 65 m/s

Very good cutting results are achieved with a suitable saw blade projection. This is diameter-dependent.

Circular saw blade diameter	Saw blade projection
D = 250 mm	approx. 15 - 20 mm
D = 300 mm	approx. 15 - 25 mm
D = 350 mm	approx. 18 - 28 mm
D = 400 mm	approx. 25 - 30 mm
D = 450 mm	approx. 25 - 30 mm

1.5 THROUGH-FEED HOGGER SYSTEMS

Industrial format processing on through-feed machines is performed using diamond-tipped tools. When performing format processing with milling cutters, good results can be achieved using the double hogging process. Milling cutters with low cutting pressure, such as the LEUCO PowerTec5 milling cutter, are recommended for this application. The number of teeth on the hogger should be selected based on the feed rate of the processing operation.

2. MILLING / EDGE PROCESSING

In general, tools with DP inserts should be used for through feed joint machining. For sizing with jointing cutters, tools with a shear angle between 35° and 70° can be used. The best results in terms of quality are achieved with joint tools featuring a 48° shear angle and the Fibonacci cutting arrangement.

The target feed per tooth (fz) ranges from 0.7 to 0.94 mm. If possible, use an oscillating feed pattern, with an oscillation length between 3 and 5 mm. If oscillation is not possible, then when the first burr forms, the Z-axis should be adjusted by approximately 0.5 mm to engage a new cutting edge. In general, processing can be performed in both forward and conventional cuts, though the removal should not exceed 2 mm; 0.5-1 mm is optimal to minimize wear. If two double-jointing units are available, it is recommended to perform jointing in two stages: use the first jointing unit for the main material removal (roughing operation) and the second jointing unit for the finishing operation (finishing operation). This procedure, combined with the use of precise hydro clamping or HSK clamping, provides the optimal conditions for the highest quality and long edge life in joining operations.

3. PROCESSING ON STATIONARY CNC MACHINES

Dividing cuts, pocket cuts, and jointing cuts can generally be performed with all standard LEUCO cutter types. Very good machining results were consistently achieved using DP high-performance cutters, p-System cutters, p-System jointing cutters, and high-performance trimming cutters. The p-System tools, in particular, impress with their high cutting quality and process safety during jointing, grooving, and pocket machining.

The tested tools deliver consistently good results across a wide range of spindle speeds and feed rates. For optimal edge quality, the resulting visible edge should be positioned outside the cutting edge's overlap area. This effectively prevents chipping. The best results were achieved with DP high-performance cutters and the various p-System tool concepts.

Recommended application conditions:
The following application data have been shown to be suitable in a series of tests.

Rotations per minute:	n = 18.000-24.000 min ¹
Feed:	v_f = 12-25 m/min
Removal (jointing):	ap = 2 mm
Processing:	Can run with feed or in conventional cut
Feed per tooth:	fz = 0,22-0,45 mm

Recommendation:
The optimal feed per tooth is in the range of fz ≈ 0.25 mm to achieve a good balance between cutting quality and tool wear.

4. DRILLING

For drilling operations such as blind holes and through holes, it is recommended to use drill bits that generate low cutting pressure and provide good chip evacuation. These include drill bits from the "Mosquito" (through-hole bits) and "Light" cylinder boring bits.

Application data:

Rotations per minute:	n = 4.500 U/min
Feed:	Vf = 1,5 m/min

5. FORMULAS

5.1 CUTTING SPEED – VC

- vc = D • π • n / 60 • 1000
- D – Tool diameter [mm] n – Tool speed [min ¹]

5.2 TOOTH FEED – FZ

- fz = vf • 1000 / n • z
- vf – Feed speed [m/min]
- n – Tool speed [min ¹] z – number of teeth

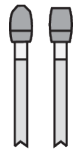
5.3 FEED SPEED - VF

- vf – Feed speed [m/min ¹]
- vf = fz • n • z / 1000
- fz – Tooth feed [mm]

6. LEUCO TOOLS FOR PROCESSING EGGER PerfectSense® Lacquered Boards

6.1 CIRCULAR SAW BLADES FOR SIZING SAWS

Dimension	Designation	Z	Tooth shape	Cutting material	Projection	Ident-No.
Ø 303x3,2x30	Sizing saw blades HW „TR-F K“ - Anti-Fingerprint	84	TR-F K	HW	40 mm	193195
Ø 300x3,2x30	DIAREX Sizing saw blades DP	65	HR-FA	DP	40 mm	192958



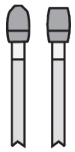
TR-F-K

HR FA

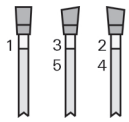
- Additional saws with different diameters, cutting widths, bores and numbers of teeth **available on request**.

6.2 CIRCULAR SAW BLADES FOR PANEL SIZING SAWS

Dimension	Designation	Z	Tooth shape	Cutting material	Projection	Ident-No.
Ø 300x4,0x30	Panel sizing saw blades HW - Q-Cut „TR-F K“	72	TR-F K	HW	approx. 40 mm	192974
Ø 380x4,0x60	Panel sizing saw blades HW - Q-Cut „TR-F K“	72	TR-F K	HW	approx. 40 mm	192976
Ø 300x4,0x30	Panel sizing saw blades HW - Q-Cut „G5“	100	G5	HW	approx. 40 mm	193312
Ø 350x4,0x30	Panel sizing saw blades HW - Q-Cut „G5“	80	G5	HW	approx. 40 mm	192813
Ø 350x4,0x60	Panel sizing saw blades HW - Q-Cut „G5“	80	G5	HW	approx. 40 mm	192814



TR-F-K

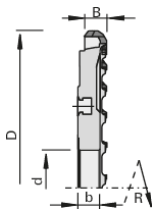


G5

- Additional saws with different diameters, cutting widths, bores, and number of teeth **available on request**.
- Number of teeth and feed rate depend on cutting height and application for single panels or stack cuts.

6.3 HOGGERS

Dimension	Designation	Z	Tooth shape	Ident-No.(L)	Ident-No.(R)
Ø 250x10xØ60	PowerTec5	20+10	DP	80477094	80477093
Ø 250x14,5xØ60	PowerTec5	28+14+7	DP	80477104	80477103
Ø 250x10xØ60	PowerTec5S	28	DP	80477124	80477123

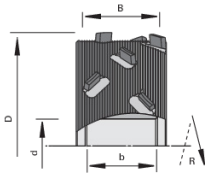


PowerTec5

- Additional hoggers with other dimensions **available on request.**

6.4 JOINTING CUTTERS

Dimension	Designation	Z	Cutting material	Shear <)	Ident-No. (L)	Ident-No. (R)
125x62,4xØ30	DIAREX airFace Fibonacci	3	DP	48°	187863	187863
125x43,7xØ30	DIAREX airFace Fibonacci	3	DP	48°	187864	187864
100x43,7xØ30	DIAREX airFace Fibonacci	3	DP	48°	187865	187868

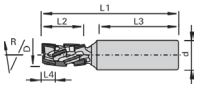


DIAREX airFace Fibonacci

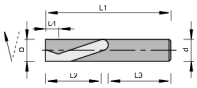
Additional jointing cutters with different diameters, cutting widths, bores, and numbers of teeth are **available on request**.

6.5 CNC SHANK-TYPE CUTTERS

Dimension	Designation	Z	Cutting material	Ident-No. (R)
Ø 12x23xØ16	High performance shank type cutters Nesting	3+3	DP	187281
Ø 16x22xØ16	High performance shank type cutters Nesting	3+3	DP	186573
Ø 10x32xØ10	VHW finishing cutters - positive/negative spiral with **shear angle**	2+2	VHW	180871
Ø 18x55xØ18	VHW finishing cutters - positive/negative spiral with **shear angle**	2+2	VHW	180874



DP Nesting shank type cutters

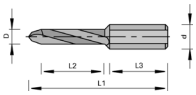


VHW Finishing cutter

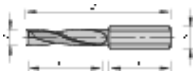
Additional shank type cutters with other dimensions **available on request**.

6.6 DOWEL DRILL BITS, THROUGH-HOLE DRILL BITS AND CYLINDER BORING BITS

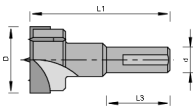
Dimension	Designation	Cutting material	Ident-No. (L)	Ident-No. (R)
Ø 5	Mosquito through-hole bit	VHW	183153	183152
Ø 8	Mosquito through-hole bit	VHW	183157	183156
Ø 5	High performance dowel bit 70 mm	VHW	185772	185771
Ø 8	High performance dowel bit 70 mm	VHW	185776	188775
Ø 15	Cylinder boring bit „Light“	HW	184685	184684
Ø 35	Cylinder boring bit „Light“	HW	184689	184688



Mosquito through-hole bit



High performance dowel bit



Cylinder boring bit „Light“

Additional drill bits with other dimensions, cutting lengths and shank dimensions **available on request**.

LEUCO
MAGENTIFY WOOD PROCESSING

→ **Couldn't find the tool type or tool dimensions you want?**
Please contact LEUCO Sales.

T +49 (0)7451/93-0
F +49 (0)7451/93-270

info@leuco.com

TIP – LEUCO ONLINE CATALOG

You can find the LEUCO tool recommendations for processing EGGER PerfectSense® Lacquered Boards in the LEUCO online catalog.

Alternatively:
Scan the QR code and get information about the LEUCO stock program

EASY & QUICK

1. www.leuco.com/products
2. Click on "Material" filter
3. "Special manufacturer materials"
4. EGGER
5. PerfectSense® Lacquered Boards

→ Select saw blades, hoggers, cutters, drill bits

LEUCO
Ledermann GmbH & Co. KG
Willi-Ledermann-Straße 1
72160 Horb am Neckar / Deutschland

T +49 (0) 74 51/93 0

info@leuco.com
www.leuco.com