

**TOOLS FOR MACHINING
OF ALUMINUM
COMPOSITE MATERIAL**

**Circular saw blades, cutters
and boring bits**

for sizing, shaping and
holes

→ ALUMINUM COMPOSITE MATERIAL

Aluminum composite panels consist of two aluminum cover sheets and a plastic or mineral core.

Their uses are many: indoor and outdoor signs, shopfronts, trade fair construction, shop fitting, furniture design, displays, etc.. Common brand names are Alucobond, Dibond, Reynobond, Hylite, etc.



LEUCO offers a wide range of machine tools for processing of aluminum composite material.

→ SAWING / SIZING

Circular Saw Blades

- I Standard use: TCT saw blades
- I Large quantities or panels or panels with mineral core: diamond-tipped saw blades
- I Tooth geometry: triple chip/flat/chamfer and HR for burr-free edges

Recommendation sfor use

- Maximum projection of saw blade, especially when cutting single sheets = 10 mm. Maximum rim speed:
- I TCT saw blades: 80 - 85 m/sec
- I PCD saw blades: approx. 85 m/sec.

LEUCO circular saw blades for sliding table saws and vertical panel saws

Ø D [mm]	B [mm]	b [mm]	d [mm]	Z	tooth configuration	Pin holes	Cutting material	Ident-No.	Application / Machine
250	3,2	2,2	30	60	TR-F-FA	2/7/42 + 2/9/46+ 2/10/60	HW [HL Board 04 plus]	192785 &	I Single sheet cuts I e. g. for machines such as Holz-Her, Striebig
250	3,2	2,2	30	80	TR-F-FA	2/7/42 + 2/9/46+ 2/10/60	HW [HL Board 04 plus]	192786 &	I Single sheet cuts I e. g. for machines such as Holz-Her, Striebig
250	2,5	2,0	30	50	HR*	2/7/42+ 2/9/46+ 2/10/60	DP [max 2 sharpenings]	192440	I Panels belonging to fire protection classification A1 I e. g. for machines such as Holz-Her, Striebig I Sliding table saws, e.g. Altendorf, even without scoring saw blade
300	3,2	2,2	30	96	TR-F-FA	2/7/42 + 2/9/46+ 2/10/60	HW [HL Board 04+]	192788	I Single sheet cuts I für Maschinen von z.B. Holz-Her, Striebig I Sliding table saws, e.g. Altendorf, even without scoring saw blade
303	3,2	2,2	30	84	TR-F-FA	2/7/42 + 2/9/46 + 2/10/60	DP [resharpe- ning area 2,0 mm]	192960	192960 and 192444: I Stack-cuts (only 192960) I Panels belonging to fire protection classification A1
303	2,5	2,0	30	60	HR*	2/7/42+ 2/9/46+ 2/10/60	DP [max 2 sharpenings]	192444	I e. g. for machines such as Holz-Her, Striebig I Sliding table saws, e.g. Altendorf, even without scoring saw blade

TCT = tungsten carbide, PCD = Polycrystalline diamond, & = modification and/or mounting of stock parts
Extremely noise-reduced thanks to tooth configuration HR combined with the new, innovative, small „LEUCO nn-System“ chip evacuation gap geometry.

Tooth geometry: triple chip/flat and HR are perfectly suited for burr-free edges



→ MILLING WITH V-GROOVE PROFILE CUTTERHEADS

Machine / Application

- | For use on vertical panel saws and sliding table saws
- | Tool body made from eloxed aluminum

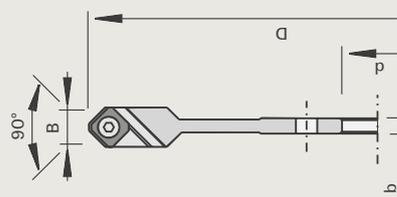
Advantages

- | Consistent cutting circle thanks to turnover knives
- | Simple handling thanks to quick knife change

LEUCO V-groove cutterhead for vertical panel saws *

Ø D [mm]	B [mm]	b [mm]	d [mm]	Z	Application	Machine	Ident-No.
244	16,5	6,5	30	8	90° V-groove	Holz-Her	182616
244	18,0	6,5	30	8	135° V-groove	Holz-Her	703144

Turnover Knives	B [mm]	H [mm]	S [mm]	Cutting material	Application	Ident-No.
	14	14	2	HW [HL Solid 40]	90° V-groove	182079
	18	20	2	HW [HL Solid 40]	135° V-groove	182080



* Other diameters, bore sizes and groove angles available upon request

135° V-groove in composite material „A2“:

The mineral core meets very high fire regulations and can be machined with PCD-tipped tools.

→ ROUTING WITH V-GROOVE SHANK-TYPE TOOLS

Machine / Application

- | For use on CNC-machines and portable machines
- | Cutting material: PCD, Resharping zone 2 mm

Advantages

- | Excellent cutting surfaces and very long edgelives
- | Most suitable for panels with mineral core

LEUCO Shank-type Cutters *

Ø D [mm]	Ø d [mm]	Total length [mm]	Z	Application	Ident.No.
18	12	60	1+1	90° V-groove	186499
32	12	60	1+1	135° V-groove	186500



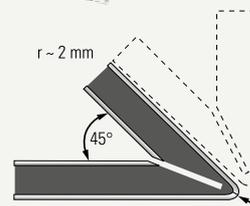
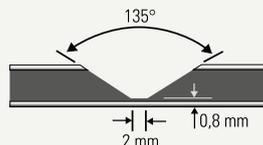
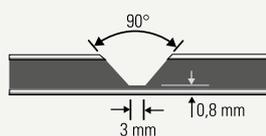
TCT = tungsten carbide, PCD = Polycrystalline diamond
 * Other diameters, bore sizes and groove angles available upon request



V-grooves in composite material with plastic core

→ V-GROOVE PROFILES

Examples



→ DRILLING

Machine / Application

- | For use on CNC machines
- | Also suitable for portable machines
- | For chip-free boring of through-holes

Advantages

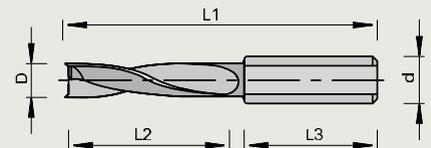
- | Low cutting pressure prevents from breakouts on exit side
- | Longest edgelives with best boring quality in panels with plastic- or mineral core

LEUCO solid carbide Mosquito boring bit - the powerful solution *

Ø D [mm]	L 2 [mm]	d [mm]	L 1 [mm]	Application	Ident-No. lefthand	Ident-No. righthand
5	40	10	70	Through-hole Bit	183153	183152
6	40	10	70	Through-hole Bit	183155	183154
8	40	10	70	Through-hole Bit	183157	183156

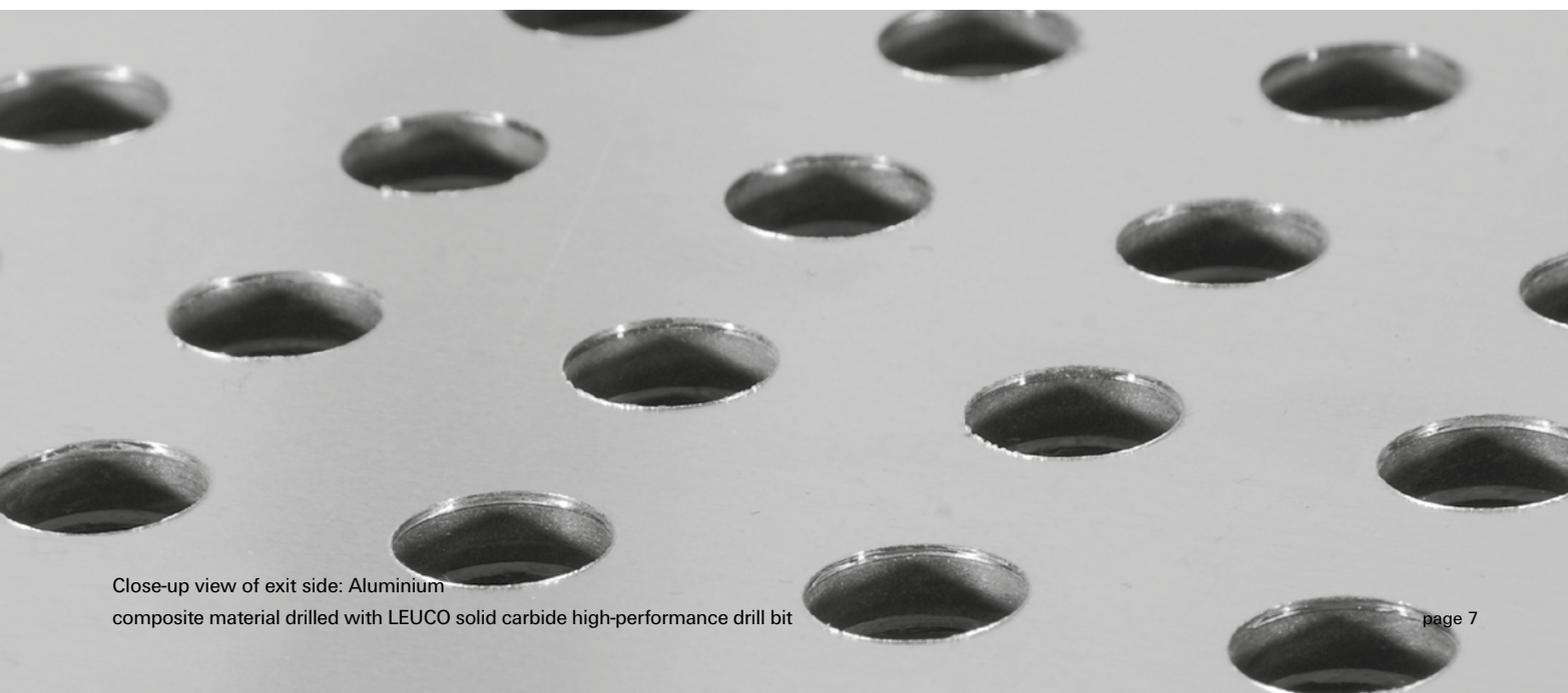
LEUCO Solid Carbide High Performance Boring Bit with patented tip – for highest performance and extreme edgelives *

Ø D [mm]	L 2 [mm]	d [mm]	L 1 [mm]	Application	Ident-No. lefthand	Ident-No. righthand
5	36	10	70	Dowel- and through-hole drill	185772	185771
6	36	10	70	Dowel- and through-hole drill	185774	185773
8	36	10	70	Dowel- and through-hole drill	185776	185775
10	36	10	70	Dowel- and through-hole drill	185778	185777



VHW=Solid tungsten carbide

* Other boring bits with different diameters and drill depths available



Close-up view of exit side: Aluminium composite material drilled with LEUCO solid carbide high-performance drill bit

→ Due to the variety of machines and tasks we recommend to discuss your special application cases with a LEUCO representative.



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