PROCESSING INSTRUCTIONS

MANUFACTURER: WESTAG & GETALIT
MATERIAL: MONDO PANELS

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PROCESSING INSTRUCTIONS

WESTAG & GETALIT MONDO PANELS

WESTAG & GETALIT AG

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PROCESSING INSTRUCTIONS, WESTAG & GETALIT MONDO PANELS

Westag & Getalit panels with the MONDO surface are a high quality laminate with a very uniform matte surface. They offer special properties such as fingerprint resistance and a velvety feel. As a result of the special surface with MONDO-HPL, special procedures must be observed. MONDO-HPL can be used both for surfaces as well as for edge finishing.

PROCESSING INSTRUCTIONS, WESTAG & GETALIT MONDO PANELS

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

DEFINITION OF TERMS

DP = DIA; **HW** = carbide; **HR** = hollow back; **S-F** = slow, fast; **S-F-S** = slow, fast, slow; **vc** = cutting speed; **fz** = tooth feed; **vf** = feed speed

Westag & Getalit MONDO panels
Material (from left to right): MONDO - Fjord oak,
MONDO - Copper ash gray/brown,
MONDO - Atacama cherry wood
(image source: Westag & Getalit)

1. GENERAL

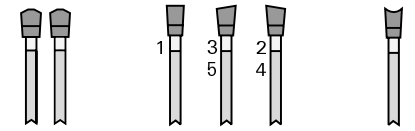
Tool stress when processing Westag & Getalit Mondo panels is higher than with the majority of wood-based panels. Carbide-tipped tools (HW) can be used for processing. For large numbers of pieces and when using modern, automated processes, we recommend the use of diamond tipped tools (DP). These provide very good processing quality and long edge life.

2. TRIMMING CUT / SIZE PROCESSING

2.1. TABLE SAW

Various factors are responsible for a good cutting result:

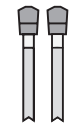
Decorative side up, correct saw blade projection, feed speed, tooth configuration, tooth partition, RPM and cutting speed. HW or DP saw blades are used depending on quantities.



HW saw blades with the G5-FA tooth configurations are particularly
suitable for sizing sawing with smaller cutting volumes. Good cutting results are also possible with the „nn-System DP flex“ sizing saw blades with „HR“ tooth configuration. **Note:** Saw cuts without flare are not possible with MONDO panels,
especially with dark, matte surfaces.

2.2. PANEL SIZING SAW

Exceptional cutting results are achieved on panel sizing systems with the new HW-tipped panel sizing saw blade (192796) from the Q-Cut saw family (Q-Cut K). Good results can likewise be achieved with the LEUCO DP panel sizing circular saw blades „HR."



TR-TR B

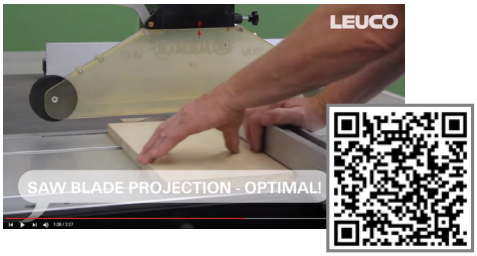
HR

Decoration side of panel must be face-up. Good edges on both sides are achieved only by using a suitable scoring unit. For best cutting results the correct saw blade projection should be observed as it depends on the saw blade diameter.

Circular saw blade diameter	Saw blade projection
D = 250 mm	15 - 20 mm
D = 300 mm	20 - 30 mm
D = 350 mm	22 - 28 mm
D = 400 mm	25 - 30 mm
D = 450 mm	25 - 33 mm

The recommended cutting speed is 60 - 90 m/sec. In the case of DP-tipped saw blades, the upper value must be selected. A feed per tooth of 0.05 - 0.12 mm should be targeted.

More info on the optimal saw blade projection can be found on our YouTube channel. >>> Scan QR-Code and view video on YouTube. Or directly at **www.youtube.com/leucotooling** <<<



2.3. THROUGH-FEED MACHINES: HOGGERS

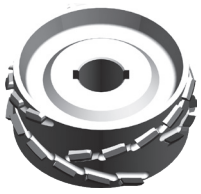
Exceptional results can be achieved in the double hogging process when sizing with hogger tools on through-feed machines. Hoggers with low cutting pressure are recommended here, e.g. the LEUCO „PowerTec III LowNoise" hogger.

Cutting speed: 80 m/sec.
Tooth feed: 0.3 - 0.6 mm with LEUCO PowerTec hoggers

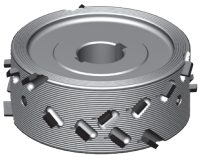
PowerTec III LowNoise

3. MILLING / EDGE PROCESSING

Edge trimming achieves good results both with high gloss and matte surfaces with „LEUCO p-System" jointing cutters (shear angle = 70°), as well as with „LEUCO DIAREX" airFace jointing cutters (shear angle = 48°). Tools with DP cutting edges must be used for milling work. Jointing in two stages is recommended when there is a double jointing assembly. In the first pass, material removal according to the allowance minus finish milling width. In the second pass, a removal of max. 0.5 mm for finish processing.



p-System jointing cutter



DIAREX airFace jointing cutter

4. PROCESSING ON CNC STATIONARY MACHINES

Only the DP tools listed in the appendix (page 6) are suitable for milling.
However, the following must be observed:

- Always choose the largest possible diameter (lower vibration risk).
- The use of tools with very large shear angles is recommended on stationary systems, because there is a good relationship between the performance of the tools and cutting quality.
- When milling pockets or openings, the tool should always be designed with cutting edge/plunge tip.
- Tool: DP-cutting edges
- Clamping elements: Use hydro expansion chuck or shrink fit chuck in order to ensure the tool runs smoothly.
- Tooth feed according to table:

Cutting-Diameter:	3 - 10 mm	10 - 16 mm	16 - 25 mm	25 - 40 mm	>40 mm
Recommended fz (mm) with particle board & MDF	0,03 - 0,10	0,10 - 0,20	0,20 - 0,30	0,30 - 0,40	0,40 - 0,50

5. DRILLING

Drill bits with low cutting pressure and good chip removal are recommended for drilling processes such as dowels and through-holes. These include drill bits from the LEUCO product families „Mosquito“ (through-hole bits, dowel bits) and „Light“ cylinder boring bits.

- Clamping elements: precise mounting with secure hold

The optimal application data for dowels and through-holes are:

- RPM = 4500/min;
- Feed = 1.5 mm/min;
- Boring mode S-F for dowels; S-F-S for through hole

„Mosquito“ through-hole bits HW

„Mosquito“ dowel bits HW

„Light“ cylinder boring bits

6. FORMULAS

6.1. CUTTING SPEED – VC

- Unit: m/s
- Required data: Diameter = D [mm];
  RPM = n [1/min]
- Calculation: vc = (D * π * n)/(60 * 1000)

6.2. TOOTH FEED – FZ

- Unit: mm
- Required data: Feed speed: = vf [m/min];
  RPM = n [1/min]; number of teeth = z
- Calculation: fz = (vf * 1000)/(n*z)

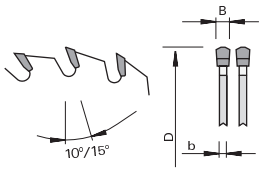
6.3. FEED SPEED – VF

- Unit: m/min
- Required data: Tooth feed = fz [mm];
  RPM = n [1/min]; number of teeth = z
- Calculation: vf = (fz * n * z)/1000

7. LEUCO TOOLS FOR PROCESSING WESTAG & GETALIT MONDO PANELS

7.1. CIRCULAR SAW BLADES FOR PANEL SIZING SAWS

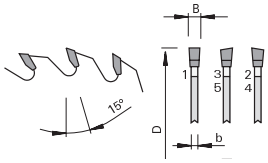
Dimension	Description	Z	Tooth shape	Cutting material	Projection	Ident-No.
Ø 380 x 4,4 /3,2 x Ø 60	Q-Cut K	72	TR-F K	HL Board 04 plus	22-30 mm	192976
Ø 350 x 4,4 /3,2 x Ø 60	DP circular saw blade for panel sizing saws	72	HR-TR	DP	20-25 mm	193046
Ø 450 x 4,8 /3,8 x Ø 60	Q-Cut "G6" nn-System	72	G6	HL Board 04 plus	35-40 mm	193194



- Additional saws with other diameters, cutting edge widths, bores and numbers of teeth **available upon request**.
- Number of teeth and feed speed depend on cutting height and application for single panels or stack cuts.

7.2. CIRCULAR SAW BLADES FOR SIZING SAWS

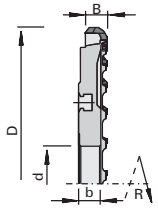
Dimension	Description	Z	Tooth shape	Cutting material	Projection	Ident-No.
Ø 303 x 2,5 (2,0) x Ø 30	nn-System DP flex	60	HR	DP	22-30 mm	192444
Ø 300 x 3,2 (2,2) x Ø 30	HW-LowNoise	96	TR-F-FA	HL Board 04 plus	20-25 mm	192788
Ø 300 x 3,0 (2,2) x Ø 30	Sizing circular saw blade HW „G5"	100	G5	HL Board 04 plus	35-40 mm	192794



- Additional saws with other diameters, cutting edge widths, bores and numbers of teeth **available upon request**.
- Number of teeth and feed speed depend on cutting height and application for single panels or stack cuts.

7.3. HOGGERS

Dimension	Description	Z	Cutting material	Ident-No.(R)	Ident-No.(L)
Ø 250 x 14,5 x Ø 60	PowerTec III LowNoise	16+16+4	DP	185630	185631

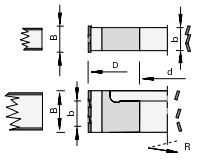


PowerTec III LowNoise

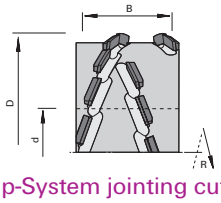
- Additional PowerTec hoggers with other dimensions **available upon request**.

7.4. JOINTING CUTTERS

Dimension	Description	Z	Shear<)	Cutting material	Ident-No.
Ø 125 x 42,8 x Ø 40	DIAREX airFace jointing cutter	3+3	48°	DP	186323
Ø 125 x 47,8 x Ø 30	p-System jointing cutter MEC	3+3	70°	DP	184071
Ø 125 x 47,8 x Ø 30	p-System jointing cutter MAN	2+2	70°	DP	184333



DIAREX airFace jointing cutter

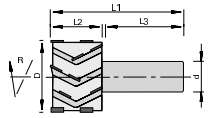


p-System jointing cutter

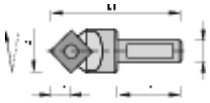
- Additional jointing cutters with other diameters, cutting edge widths, bores and numbers of teeth **available upon request**.

7.5. CNC SHANK-TYPE CUTTERS

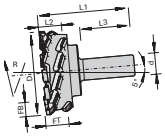
Dimension	Description	Z	Shear ∢	Cutting material	Ident-No.
Ø 48 x 22 x Ø 25	High-Performance **trimming** router bits	4+2+4	40°	DP	186140
Ø 60 x 38 x Ø 25	High-Performance **shank-type** cutters CM "p-System"	4+4	70°	DP	184084
Ø 25 x 48 x Ø 25	High-Performance **shank-type** cutters CM "p-System"	2+2	70°	DP	184384
Ø 12 x 21,5 x Ø 16	High-Performance **shank-type** cutters CM "p-System"	1+1	70°	DP	185501
Ø 100 x 18,6 x Ø 25	High-Performance **rabbeting** shank-type cutters "p-System"	3+3	70°	DP	184731
Ø 18 x 19 x Ø 20	High-Performance **grooving** shank-type cutters "p-System"	1+1	70°	DP	185614



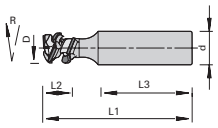
High-Performance trimming router bits



High-Performance shank-type cutters CM (4+4) "p-System"



High-Performance rabbeting shank-type cutters (3+3) "p-System"

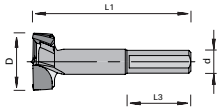


High-Performance grooving shank-type cutters (1+1) "p-System"

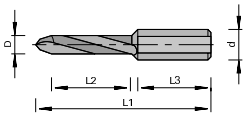
Additional shank-type cutters with other diameters (Ø) and cutting lengths (L2) **available upon request**.

7.6. THROUGH HOLE, DOWEL AND BLIND HOLE BITS

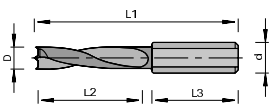
Dimension	Description	Cutting material	Ident-No. (L)	Ident-No. (R)
Ø 35 x L1=70 x Ø 10	"Light" cylinder boring bits	HW	184689	184688
Ø 5 x L1=70 x Ø 10	"Mosquito" through-hole bits	VHW	183153	183152
Ø 8 x L1=70 x Ø 10	Standard through-hole bits with back-guide	HW	176257	176256
Ø 8 x L1=70 x Ø 10	"Mosquito" dowel bits	VHW	183151	183150
Ø 8 x L1=70 x Ø 10	"Mosquito" dowel bits with back-guide	HW	167205	167196



"Light" cylinder boring bits



"Mosquito" through-hole bits



"Mosquito" dowel bits

Additional drill bits with other diameters, cutting edge widths, and shaft dimensions **available upon request**.

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

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TIP – LEUCO ONLINE CATALOG

You can find the LEUCO tool recommendations for processing Westag & Getalit panels with the Mondo surface in the LEUCO online catalog.

Alternatively:
Scan QR-Code and learn about the LEUCO stock program.

SIMPLE & QUICK

1. www.leuco.com/products
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→ Select saw blades, hoggers, cutters, drill bits

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