



ALFA®

Architectural Accent Panels

MACHINING

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This document is intended to offer general recommendations only. ALFA provides these guidelines, alongside testing, code, and design data, for informational purposes only. It is strongly recommended that customers, project owners, and architects seek independent advice from a certified construction professional and/or engineer regarding application, installation, and compliance with design requirements, applicable codes, laws, regulations, and test standards. To ensure proper use, it is advisable to consult local codes and relevant design requirements.

General Machining

Machining panels should only be done by a machining or construction professional with proper equipment.

The homogeneous composition of ALFA Panels allows for machining on both sides and the surface, akin to working with high-quality hardwood. While carpentry tools may be employed, the hardness of ALFA Panels places greater demands on tools compared to materials composed of softwood. The use of hard metal tools is recommended, especially diamond-tipped tools for large series, ensuring a good finish and prolonged tool life.

Health and Safety

It is essential to acknowledge the inherent serious dangers associated with the use of (carpentry) machinery. Strict adherence to the guidelines provided by machinery manufacturers and the recommendations of safety and labor organizations is imperative in all cases.

Transport and Handling

When handling ALFA Panels, it is recommended to lift them instead of sliding, both during transport and assembly.

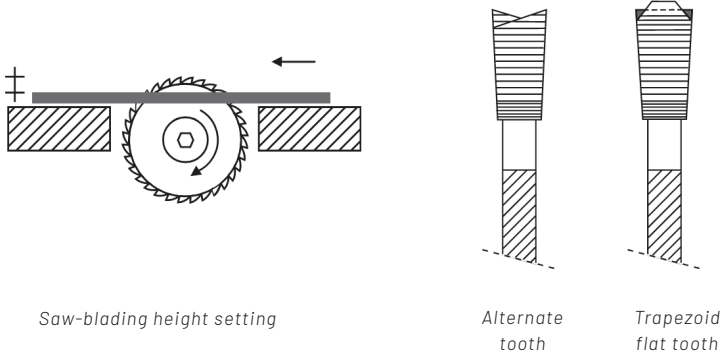
- Avoid the removal of protective elements during machining.
- Preferably use computer-operated equipment for machining.
- Refrain from writing directly on protective elements; use adhesive stickers for marking/coding.



Sawing

The following general guidelines are applicable to the sawing of ALFA Panels

- **Feed:** 7 - 22 m/min (\approx 23 - 72 ft/min).
- **Tooth:** Alternate tooth or trapezoid flat tooth.
- **Positioning:** Always enter the tooth at the decorative side of the ALFA Panel.
- **Cutting edges:** Optimal results are achieved with stationary machines. Any sharp edges can be eliminated using sandpaper or a router.
- **Rake angle:** A rake angle of 45° yields the best performance.
- When working with double-sided panels or if the machine lacks a moving work top, use insert templates covered with rubber mats to prevent the ALFA Panels from sliding.



Stationary Circular Saw

Ensure the decorative side is positioned facing upwards during sawing, drilling, and routing of ALFA Panels. If there is a need to slide the decorative side over the machine's work top during machining, it is advisable to place a protective panel, such as one made of hardwood, on the work top.

Diameter		Teeth	# of Revolutions	Saw Blade Thickness		Saw Blade Height Setting	
mm	inch			mm	inch	mm	inch
300	\approx 12	72	\approx 6,000 / min	3,4	\approx 1/8	30	\approx 1 1/4
350	\approx 14	84	\approx 5,000 / min	4,0	\approx 3/16	35	\approx 1 3/8

Portable Circular Saw

When using a portable circular saw, the non-decorative side should face upwards.

Diameter		Teeth	# of Revolutions	Saw Blade Thickness		Saw Blade Height Setting	
mm	inch			mm	inch	mm	inch
150	\approx 6	36	\approx 4,000 / min	2,5	\approx 1/8	15	\approx 5/8

Jig Saw

Use a carbide-tipped blade, and initiate drilling for interior corners of cut-outs first using a hole diameter of 8 - 10 mm (\approx 5/16 - 3/8 in). Consider the use of a dedicated jig saw blade for decorative surfaces.

Drilling

Carbide-tipped or HSS-drill, top angle 60-80°. ALFA panels should be drilled with support sheets.



Diameter		# of Revolutions	Feed	
mm	inch		mm/min	inch/min
5	≈ 1/4	≈ 3,000 / min	60 - 120	≈ 2 - 5
8	≈ 5/16	≈ 2,000 / min	40 - 80	≈ 1 1/2 - 3
10	≈ 3/8	≈ 1,500 / min	30 - 60	≈ 1 - 2

Routing

Routing Shapes:

- Straight and slanted bits for cutting edges and bevelling;
- Hollow or round ground bits for rounded edges;
- Diamond groove-circular saw blades for grooves.

Material:

- Cutters made of hard metal or diamond.

Manually operated routing cutter or spindle moulder:

Diameter		# of Revolutions	Speed		Feed	
mm	inch		m/s	ft/s	m/min	ft/min
20 - 25	≈ 1	≈ 18,000 - 24,000 / min	20 - 30	≈ 65 - 100	5	≈ 16
125	≈ 5	≈ 6,000 - 9,000 / min	40 - 60	≈ 130 - 200	5 - 15	≈ 16 - 50