MANUFACTURING GUIDE

Gamma Doors

TAFISA®

WARNING

» This document suggests steps to follow for making a cabinet door with Gamma profile mouldings manufactured by Moulures Transform / Tafisa Canada only. Please refer to the moulding manufacturer for all other moulding models.

» There are several ways to make doors with Gamma profile mouldings manufactured by Moulures Transform. The procedure below describes only one. It is up to each user to identify, define and validate the manufacturing methods that allow efficient and safe production. The procedure below is therefore provided as a guideline only.

» This document and the procedures it describes should only be used by or under the supervision of a person(s) who has received adequate training in the safe usage of the equipment used for cutting particle board(PB) or MDF panels.

» The implementation of safe working methods and procedures is the responsibility of each user. Moulures Transform / Tafisa Canada recommends following the “General Safety Tips” found at the end of this document. However, please refer to the user manuals provided by the manufacturers of the specific equipment being used to know the correct and safe use.

» Please pay attention to the safety instructions and warnings given in the user manuals of these manufacturers, which always take precedence over the general health and safety advice suggested in this document.

» Please ensure that the manufacturing methods that will be used comply with all health and safety regulations applicable at the manufacturing site.

» Moulures Transform / Tafisa Canada assumes no responsibility for the technical data, dimensions and type of tools listed in this document. They are provided for information purposes only.

STEPS TO FOLLOW TO MAKE A GAMMA DOOR

1

PREPARATION

» Validate the quality, the dimensions (15.88 mm ±0.2 mm or 5/8 in ±0.008 in) and quantity of panels and mouldings that are required.

» Verify the condition and proper functioning of machines for machining and sharpening cutting tools. Check the validation of the zero-point positioning, the good condition of the tools with carbide / diamond tips, the measurement of the cutting tools using a metal-free vernier and do low-speed cutting tests (to be specifically validated).

» Be sure to follow the general safety guidelines and procedures for cutting wood and the specific manufacturer's guidelines of the machines and tools used.

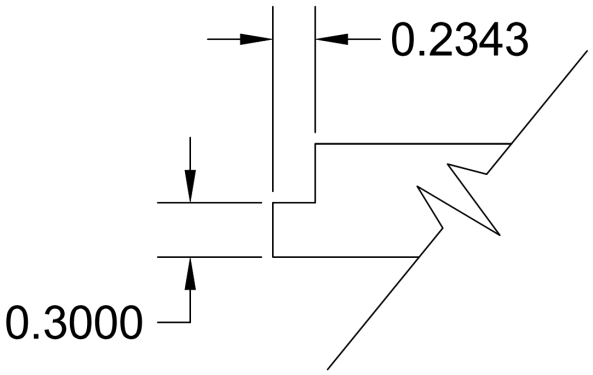
2

PRECUT OF THE CENTRAL PANEL

» Using a spiral router bit, precut the contour of the doors in the panel to clear a trench at 10.16 mm (0.400 in) from the bottom surface of the panel.

» To avoid chipping, it is recommended to start and end the pre-cut between two doors, outside their contour.

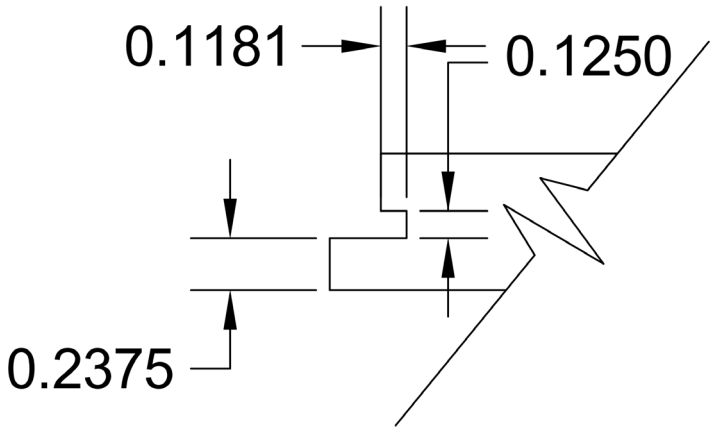
Note: This precut prevents premature wear of the T-shape router bit used in the next step. It also reduces the risk of surface chipping near the door contour.



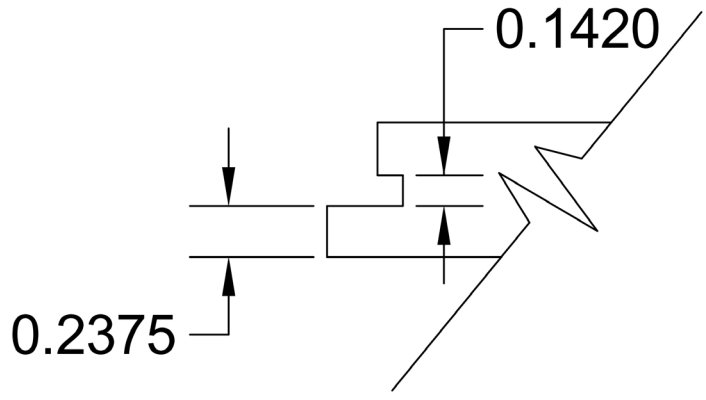
PANEL PROFILING

» Change the router to a T-shape router.

» The cut should be made by going twice around the outline of each door. The first pass is used to machine the upper part of the groove. See the sketch below.



» The second pass is used to machine the lower part of the groove in the panel. This second cut also aims to add 0.17 mm (0.007 in) to the final width, i.e. 3.20 mm (0.125 in) + 0.17 mm (0.007 in).

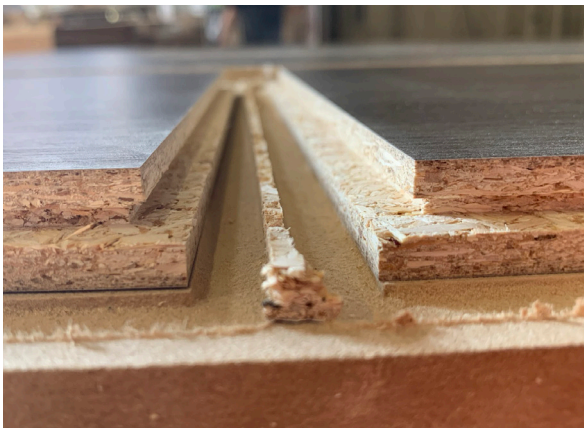


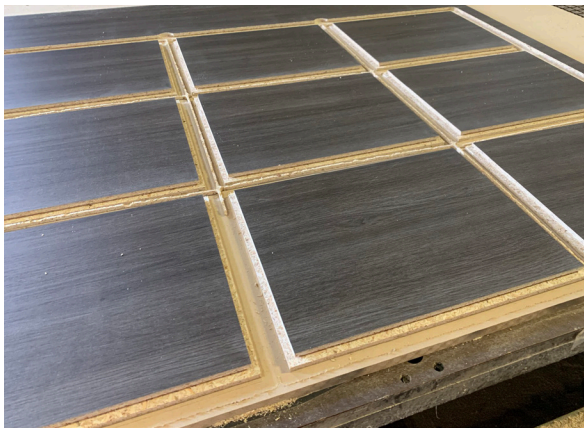
4

DETACHMENT OF THE DOOR FROM THE MELAMINE PANEL

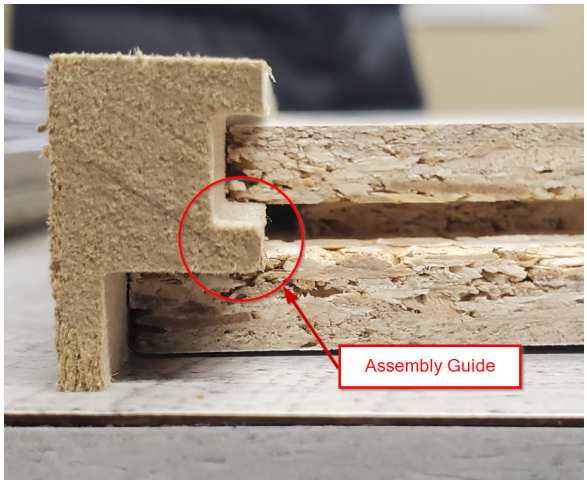
» This final cut allows the center panel of the door to be detached from the rest of the melamine panel. It is done using the router used in step 2 (precut).

» It is preferable that the router starts and ends its cut at a certain distance from the door cutout in order to prevent surface chipping around the doors.





» Once this step is completed, it is important to validate that the Gamma moulding can slide well in the groove along the central panel. If the groove is too narrow, the assembly guide may get caught and break when assembling the mouldings to the center panel.



5

CUTTING THE MOULDINGS

» In order to prevent the paper from chipping on the surface, it is important to position the moulding on the saw taking into account the entry and exit of the saw in the moulding.

» Cut the mouldings to the required length and width.

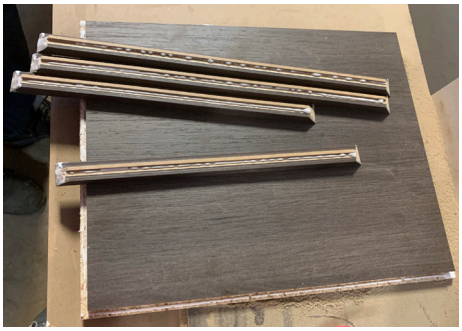
» Trim the end of the mouldings to a 45-degree angle.

6

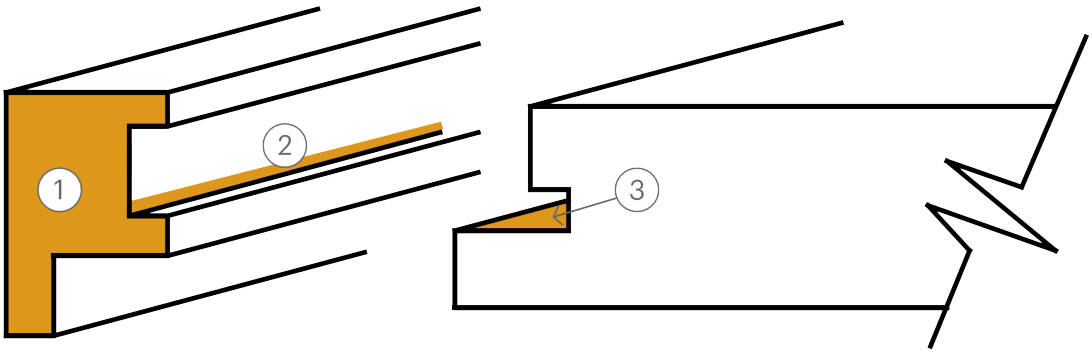
TOUCHING UP AND GLUING THE MOULDINGS

» Using a touch-up marker, mask the color of the MDF at each end before applying the glue.

» By pointing the nozzle of the glue tube downwards so that the glue does not appear on the surface, apply it in the following places:



1. At one of the two ends of each of the mouldings
2. Over the entire length of the mouldings assembly guide
3. Inside the panel groove

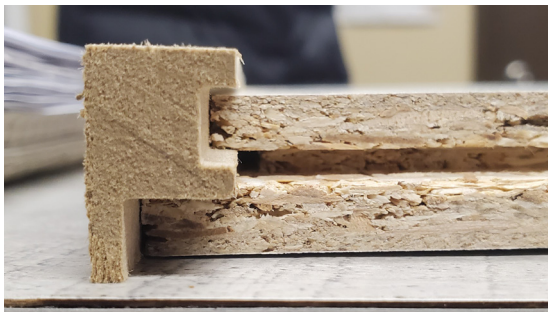


7

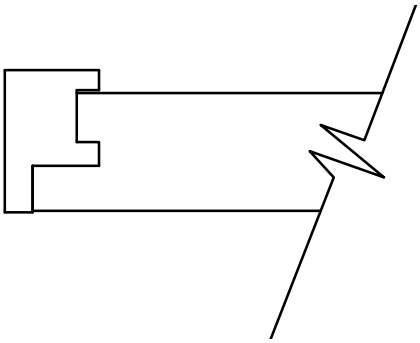
FIXING THE MOULDINGS

» Insert the first moulding in the groove of the central panel and then glue a second moulding to it (one side having glue, the other without). Make sure the seam of the 45-degree mouldings is flush with the corner of the center panel.

» Do this for each of the mouldings.

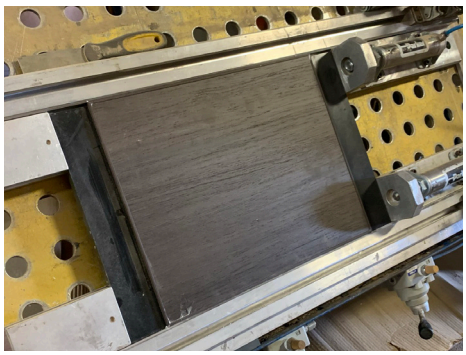


Note : The adhesion time of the glue varies depending on the type of glue used.



» Put the assembled door in a pressing jig for approximately 45 minutes. Make sure you put the door face down to the floor first. This step ensures better stabilization, good alignment and keeping the moulding joints level.

» Since Gamma mouldings are thin mouldings, add reinforcements of the same width as the door on each side of the pressing jig. These reinforcements will help distribute the applied pressure properly over the entire length of the moulding and not just at the four corners. Otherwise, the moulding may come off the center panel.



CLEANING AND FINISHING

» During the adhesion period (step 5 of this guide), remove the excess glue from the back of the door with a cloth.

Note : A sharp thin tool, a small piece of laminate or edge banding can also be used to remove excess glue accumulated on the panel at the joints of the mouldings.

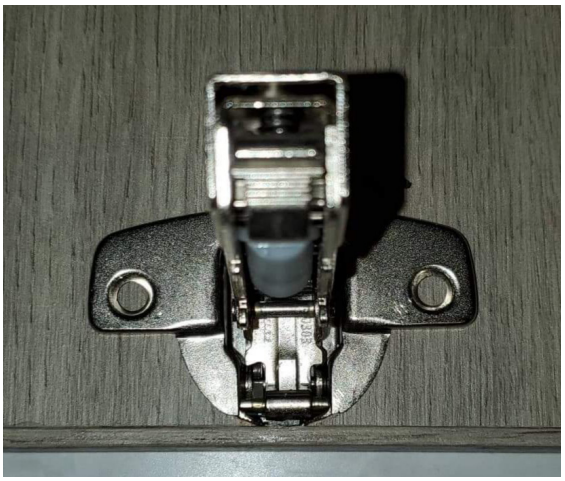
» Then, remove the excess glue from the front in the same way, then let dry.

» Using a touch-up stick or wax crayon, make the necessary touch-ups on the door.

Note : For a better finish, rub the joints of the mouldings with your fingernail, a piece of laminate or edge banding.

DRILLING AND INSTALLING THE HINGES

» The holes for the installation of hinges must be made at the very end. Drill the holes in the back of the door, according to the hinge manufacturer's recommendations.



Note : Drilling a hole deeper than recommended could damage the front of the door.

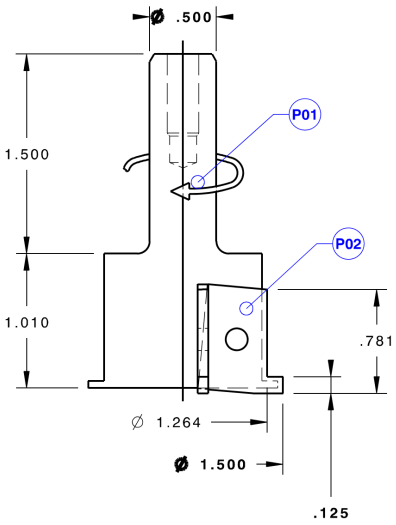
ANNEXE

ROUTER

» Example of a router bit used to pre-cut the contour of the doors (step 1) and the final cut of the door (step 3).

T-SHAPE ROUTER BIT

» Example of T-shape router bit used to make the slot in the panel (step 2) and its specifications.



GENERAL SAFETY TIPS

WOODWORKING MACHINES

» Source : https://www.ccohs.ca/oshanswers/safety_haz/woodwork/gen_safe.html

What should you do before using woodworking machines?

Woodworking tools can be dangerous if not used properly.

» Only use woodworking machines that you have been trained to use properly and safely.

» Read the owner's manual carefully.

» Make sure you understand instructions before attempting to use any tool or machine. Ask questions if you have any doubts about doing the work safely.

What safety procedures should you follow when using woodworking machines?

» Always wear safety glasses or goggles, or a face shield (with safety glasses or goggles).

» Wear dust masks when required.

» Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area. If you have trouble hearing someone speak from three feet away, the noise level from the machine is too high. Damage to hearing may occur.

» Use gloves to protect hands from splinters when handling wood but do not wear them near rotating blades and other machinery parts where the gloves can catch.

» Wear protective footwear when required.

» Make sure the guard is in position, is in good working condition, and guards the machine adequately before operating any equipment or machine. Check and adjust all other safety devices.

» Make sure the equipment is properly grounded before use.

» Check that keys and adjusting wrenches are removed from the machine before turning on the power.

» Inspect stock for nails, staples, loose knots or other defects before cutting, planing, routing or carrying out similar activities.

» Make sure that all machines have start and stop buttons within easy and convenient reach of an operator. Start buttons should be protected so that accidental contact will not start the machine. A collar around the button 3 to 6 mm (1/8 to 1/4 inch) above the button is recommended.

» Ensure that all cutting tools and blades are clean, sharp, and in good working order so that they will cut freely, not forced.

» Turn the power off and unplug the power cord (or lock out the power source) before inspecting, changing, cleaning, adjusting or repairing a blade or a machine. Also turn the power off when discussing the work.

» Use a “push stick” to push material into the cutting area. Jigs are also useful in keeping hands safe during cutting procedures. Keep hands out of the line of the cutting blade.

» Clamp down and secure all work pieces when drilling, sanding, cutting or milling.

» Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position or shade lighting sources so they do not shine in the operator’s eyes or cause any glare and reflections.

» Ensure that the floor space around the equipment is sufficient to enable you to machine the size of work piece being processed safely without bumping into other workers or equipment.

» Use extension tables or roller supports for large workpieces. Supports should be placed on both sides (infeed and outfeed).

» Woodworking machines should be fitted with efficient and well-maintained local exhaust ventilation systems to remove sawdust or chips that are produced.

» Electric power cords should be above head level or in the floor in such a way that they are not tripping hazards.

» Keep work area free of clutter, clean, well swept, and well lit. Spills should be cleaned up immediately. Floor areas should be level and non-slip. Good housekeeping practices and workplace design will reduce the number of injuries and accidents from slips, trips, and falls.

» Keep the area free from water and moisture. Do not use electrical equipment outdoors in the rain.

» Always keep your attention on the work. For example, if you must talk to another person, turn off the equipment first.’assurer que toutes les clés et autres outils de réglage ont été enlevés de la machine avant de la mettre sous tension.

What should you avoid when working with woodworking machines?

» Do not wear loose clothing, work gloves, neckties, rings, bracelets or other jewellery that can become entangled with moving parts.

» Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool or blade.

» Do not stand directly behind stock that is being cut, planed, or jointed to avoid injury from kick-back.

» Do not remove sawdust or cuttings from the cutting head by hand while a machine is running. Use a stick or brush when the machine has stopped moving.

» Do not use compressed air to remove sawdust, turnings, etc. from machines or clothing.

» Do not leave machines running unattended (unless they are designed and intended to be operated while unattended). Do not leave a machine until the power off is turned off and the machine comes to a complete stop.

» Do not try to free a stalled blade before turning the power off.

» Do not distract or startle an operator while he or she is using woodworking equipment.

» Horse play should be prohibited. It can lead to injuries.