



# MULLWOODS

---



# Component Customer Manual

# Table of Contents

|   |   |
|---|---|
| Letter from the President.....3           | COD Accounts.....17                                 |
| The Mullwoods Experience.....4-5          | Applying for Credit with Mullwoods.....18           |
| Office Contact Information.....4          | Credit Policy.....18                                |
| Online Ordering.....4                     | Payment Methods.....18                              |
| Standard Schedules.....7                  | Warranties.....19-23                                |
| Rush Schedules.....8                      | Custom Doors.....19-20                              |
| Product Quoting.....9                     | Dovetail Drawer Boxes.....21                        |
| New Tooling Protocols.....9               | Edge Glued Panels.....22                            |
| New Design Protocols.....9                | S4S and Moldings.....23                             |
| How to Calculate Footages.....10          | Product Offerings, Specifications, and              |
| Lumber Thickness Parameters.....11        | Abbreviations.....25-51                             |
| Ship Dates and Ship via.....13            | Custom Door Facts.....25                            |
| Conditions beyond Our Control.....14      | Custom Grade.....26                                 |
| Warehousing Costs.....13                  | Dowel Construction Fact Sheet.....27                |
| Pallets.....14                            | Priming of Doors.....28                             |
| Shipping via Mullwoods Fleet.....14       | Wire brushing.....29-31                             |
| Conditions beyond Our Control.....14      | Hinge Options.....32-33                             |
| Back Orders.....14                        | Edge Glued Panels.....34                            |
| Replacements, Returns, and Credits.....15 | S4S.....35  |
| Replacement Product Schedules.....15      | Edge Banding.....36                                 |
| Missing Parts.....15                      | Wood Species Definitions and Specifications...37-51 |
| Credit Process.....15                     |   |
| Returns for Credit.....15                 |   |
| Shipping via UPS, FedEx, and Common       |   |
| Carrier.....16-17                         |   |
| Damage claim.....17                       |   |

\*All information within this manual supersedes all previous literature you may have received from Mullwoods. This information is subject to change without notice. 2.2024

# The Mullwoods Experience

## Vision Statement:

To be uncommon in everything we do.

## Core Values:

Servant Leadership, Stewardship, Synergy, Continuous Improvement, Fun, Excellence

## Customer Service

Office Hours: M-Thurs. 7:00 a.m. – 3:30 p.m. EST & Friday 7:00 a.m. – 1:00 p.m.

Customer service team representatives are available Monday through Thursday from 7:00a.m. to 3:30p.m. EST and Fridays 7 a.m. to 11:30 a.m.. They can be reached at 330.674.5252 or [orders@mullwoods.com](mailto:orders@mullwoods.com). Our team looks forward to working with you.

## Sales Consultants

Our qualified sales team covers the entire state of Ohio and large portions of Indiana, Michigan, Pennsylvania, Kentucky, Tennessee, West Virginia, North Carolina, South Carolina, Georgia, and Florida. We look forward to hearing from you. Please visit our website ([www.mullwoods.com](http://www.mullwoods.com)) for your area sales consultant or call one of our customer service team representatives for contact information.

## Online Ordering

Mullwoods's online ordering system is very user friendly. If you would like access to order online, please fill out the form located on our website at [www.mullwoods.com/order-online](http://www.mullwoods.com/order-online).

Some benefits are:

- Convenient anytime ordering and pricing
- Point-n-click, see what you are ordering
- Import orders
- See all of our product offerings
- See all of the styles and profiles that are available
- See the new profiles as they become available
- Manage your account information and account settings
- View past and current orders
- Track the status of current orders
- Quote jobs / convert quotes into orders
- Make Payments



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)

# Ordering and Order Processing

- Orders must be placed on Mullwoods order forms.
- We accept phone and mail orders. But prefer them entered within our ordering portal. Emailed or faxed on Mullwoods order forms is also welcomed.
- Emailed orders can be sent to [orders@Mullwoodsdoor.com](mailto:orders@Mullwoodsdoor.com).
- Orders placed by phone will be recorded for accuracy purposes.

**Toll Free Phone: 1-844-279-DOOR (3667)**

**Toll Free Fax: 1-855-781-3371**

- Order forms are available on our website ([www.mullwoods.com](http://www.mullwoods.com)) or from your sales consultant. Our inside customer service team can forward order forms, as well.
- Orders received after 12:00 (noon) EST will be processed the next production day.
- Please complete all sections of the order forms clearly and legibly.
- Please include your business name and either a phone or fax number on all orders. If you do not have a phone or fax, please include your address.
- Orders missing information, or with processing questions, WILL BE HELD until all questions are answered. This may cause the order to be delayed in the production schedule.
- Confirmations will be sent to all customers by email, fax, or mail. Phone orders will be repeated for accuracy and confirmed. All confirmations are sent as soon as your order is verified. *If you do not receive a confirmation, please call us promptly!* Always review your confirmation for accuracy.
- All order confirmations specify both your ship date and ship via. (See Shipping Section)
- CHANGES CANNOT BE MADE TO ANY CUSTOMER ORDER ONCE THE ORDER HAS BEEN VERIFIED BY OUR SCHEDULING DEPT. This policy is necessary due to prompt product release to manufacturing.
- All items that are changed by the customer after the order has been processed will be produced, billed, and shipped at their normal cost.
- Mullwoods processing errors will receive an internal priority rush and will be delivered to you by the quickest shipping method available, at no additional charge.
- Orders requiring modifications in tooling or special lumber WILL BE HELD until all lumber and tooling is in-house and calibrated.

***\*All information within this manual supersedes all previous literature you may have received from Mullwoods.***

***This information is subject to change without notice.***



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)



Customer Notes:



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)

# Standard Schedules

\*12 Noon EST - Order CUTOFF for orders to be processed that day\*

## **Custom Grade Doors:**

7 Business Days

10 Business Days – all applied molding, specialty doors, and priming\*

## **Semi-Custom:**

7 Business Days

8 Business Days with Priming

## **Edge Glued Panels (Glue-Ups):**

7 Business Days

## **Edge Glued Panels (Glue-Ups) w/ profile:**

7 Business Days

## **Moldings and S4S:**

7 Business Days

## **S4S w/ profile:**

7 Business Days

## **Drawer Boxes Assembled and Un-assembled:**

7 Business Days

## **Assembled Clear Coat Drawer Boxes:**

8 Business Days

## **Component Program:**

7 Business Days

## **Edge Banding:**

7 Business Days - SUBJECT TO SPECIES AVAILABILITY

*\*During high volume periods, we make every effort to finish product within standard schedule. If you have a concern about production schedule, please contact our customer service team. Orders of large volume may require a longer production schedule.*



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)

# Rush Schedules

**\*\*9:00 AM EST - Order DEADLINE\*\***

Quantity limits are total per day for all customers except for molding and S4S.

## **Custom Grade Doors:**

2 Day - 50% upcharge – 10 part max. (Any stocked specie)

3 Day - 25% upcharge – 10 part max. (Any stocked specie)

## **Semi-Custom:**

2 Day – 50% upcharge – 10 door max. (Any stocked specie)

3 Day – 25% upcharge – 10 door max. (Any stocked specie)

## **Edge Glued Panels:**

Next Day – 75% upcharge (Any thickness/stocked specie except Brown Soft Maple)

2 Day – 50% upcharge (Any thickness/stocked specie)

## **Edge Glued Panels w/ Profile:**

2 Day – 50% upcharge (Any thickness/specie)

## **Moldings and S4S Random Length:**

Next Day – 75% upcharge – 250' max. (Any specie)

3 Day – 25% upcharge – 1000' max. (Random length, Cut-to-size, or profiled)

## **Moldings and S4S Specified Length:**

2 Day – 50% up charge – 10 piece max.

3 Day – 25% up charge – 10 piece max.

## **Drawer Boxes - Assembled and Un-Assembled:**

Next Day – 75% upcharge – 10 boxes max. (Scoop & Dado fronts not available)

3 Day - 25% upcharge – 10 boxes max. (Scoop & Dado fronts available)

(Drawer Box Rush available in Sap/Mineral Red Oak, Sap Cherry, Poplar, Soft Maple, and Brown Soft Maple ONLY.)

## **Component Program:**

3 Day – 25% upcharge – 4 component max.



## Quoting of Mullwoods Products

Quotes are available through our online portal from the customer service team or through your sales consultant. After discussion, additional information may be necessary (in the form of a drawing) to accurately provide a cost on questioned products. Mullwoods works diligently to respond timely to all quote requests. However, on occasion, demand may lengthen our response time. Our goal is to satisfy your inquiry within the next business day. However, certain projects, on occasion, require internal consultation and may lengthen our timeframe for response.

## Tooling – Protocol for New Tooling

Tooling often requires a hard sample or CAD drawing to proceed. Our in-house tooling specialists will quote, draw, and submit all new tooling for customer approval. All tooling lead times begin once the approved drawing is returned to our tool room. Please inquire current tooling lead times as schedule fluctuates with demand.

## Designs – Protocol for New Designs and Products

New designs are welcome, but must follow a course of approval. Many times, they require new tooling (*see above new tooling protocol*), and we will always provide a hard sample for approval.

Mullwoods's process on new designs is as follows:

1. Provide Mullwoods with thorough specifications, preferably, a hard sample of a mock-up or a detailed picture or drawing.
2. Await Mullwoods's approval of capabilities and estimation of timeframe for project.
3. Approve pricing from Mullwoods. (Some projects will require time and material pricing.)
4. Approve hard sample that Mullwoods will manufacture.
5. Upon return of the signed approved sample, the project's schedule will begin.
6. We will use the approved sample for a visual reference on the actual project.

***Due to the nature of new design projects, schedules typically take longer than our standard 10 day schedule for specialty projects.***



## Definitions of Footages

Square Foot = a board 12" wide x 12" long (surface measurement)

Board Foot = a board 12" wide x 12" long up to 13/16" thick

Over 13/16" thick: a board 12" wide x 12" long x thickness

Lineal Foot = any width board 1 foot long (12" running foot)

## How to Calculate Footages

Square foot = width x length / 144

(Example 12x24= 288/144=2 SF)

Board foot = width x length / 144 (if finished thickness is less than 13/16")

Width x length x thickness / 144 (if finished thickness is more than 13/16")

Lineal Foot = length in inches / 12

## Footage Notes

Door prices are figured off of square feet.

Edge glued panels (glue-ups) are figured off of board

feet. Moldings and S4S are figured off of lineal feet.





## Lumber Thickness Parameters

4/4 - The thickness of this lumber when we purchase is  $15/16$ ". We can produce products that are up to  $.75$ " thick using this thickness lumber. We can manufacture products at  $.812$ ", but we do not guarantee that the back will be clear and sanded totally smooth.

- Edge Glued Panel Example:  $24 \times 48 = 1152/144 = 8$  BF

5/4 - The thickness of this lumber when we purchase is  $1 \frac{3}{16}$ ". We can make products that are  $.875$ " -  $1$ ". We can manufacture products at  $1.062$ ", but we do not guarantee that the back will be clear and sanded totally smooth.

- Edge Glued Panel Example:  $24 \times 48 \times 1.25 = 1440/144 = 10$  BF



## Customer Notes:



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)

# Shipping

## Ship Dates, Ship Via, and Customer Pick Ups

- Mullwoods runs multiple delivery routes on a daily basis, both locally and regionally. Please inquire with our customer service team or sales team, for specific delivery details.

- All order confirmations specify both your ship date and ship via.

*Ship Date:* The date the material is going to be completed and shipped. (See Special Shipping note below)

*Ship Via:* The delivery route or outside freight company that will deliver your product. (Our truck fleet delivers daily to local and designated regions. LTL, FedEx, and UPS all have varying schedules for delivery. The product will leave Millersburg, Ohio on your ship date, unless other arrangements are previously made with our shipping manager.)

*Customer Pick Ups:* Pick up is available at our shipping department Monday – Thursday from 7:00am-2:30pm and Friday from 7:00 a.m to 10:00 a.m. Please call before arriving to ensure that your order is complete and ready. We ask that you first stop at the main office before proceeding to shipping.

## Regional Routes Ship Date SOP

If the lead time for the products being entered falls before the actual ship date you must use the actual ship date. (If 5 day schedule is Thursday but ship date is Monday, it would be dated for Monday)

This will affect all regional routes:

1. Columbus - Will be dated for Monday
2. W Central Ohio - Will be dated for Monday
3. Northern Ohio - Will be dated for Wednesday Note: Routes may be pushed out 1 day
4. Western PA - Will be dated for Wednesday due to driver road hours.
5. Indiana - Will be dated for Tuesday and Thursday
6. West Virginia - Will be dated for Friday
7. SC, NC, VA, TN, KY, GA, FL - Will be dated for Thursday and will deliver no later than Wednesday of the following week.

*Note: Routes may be pushed out 1 day due to driver road hours.*

## Warehousing Costs

- Mullwoods will apply a warehousing cost to all orders not picked up within one week of completion date. Mullwoods will charge 10% of the invoice total per week. After one month, FD will dispose of the material and bill you for all material and accumulated warehousing costs.
- Mullwoods can accommodate special warehousing requests, due to travel or unforeseen circumstances, if notified ahead of time. Please communicate with your sales consultant in these instances.



## Mullwoods Fleet Delivery

Mullwoods runs multiple daily delivery routes, both locally and regionally. Please inquire with our customer service team, or your sales consultant, for exact delivery days in your area.

On occasion, Mullwoods may need to UPS, FED-EX, or freight, an order previously scheduled to be delivered on our fleet. Customers will be notified in such cases.

## Conditions beyond Our Control

Weather, traffic, machine breakdowns, manufacturing delays, etc.

Occasionally, conditions beyond our control occur and delay normal shipping schedules. In this event, every effort will be made to communicate.

Deliveries may occur between 6:00am and 6:00pm. You will be notified if a delivery will be made after business hours.

## Mullwoods Delivery Drivers

Our drivers are not permitted to place or change orders. In the event that you need to change an order, please contact our customer service team or your sales consultant.

## Shipping Damage with Mullwoods

Material delivered on our fleet of trucks will arrive packed and wrapped appropriately based on the product(s). In the event that you see damage at arrival, please make our driver aware of the problem. Immediately contact a customer service team representative if the product needs to be reordered. Mullwoods delivery drivers will not reorder damaged material.

## Pallets and Cardboard

Please return our pallets and cardboard used to layer, as often as possible with our drivers.

## Back Orders

We strive for complete orders. However, in the event that items are not ready on your ship date, a backorder sheet will accompany your order. When inquiring with our office about backorders, please have invoice and item numbers present.



## Reorders, Replacements, and Missing Parts

Please contact our customer service team to begin the process.

When reordering a product, please have ALL information available:

*Original invoice number and line item reference letter*

*Reason for reorder*

*Preference for shipment of your remake*

All reorders, replacements, and missing parts are internally rushed on schedules below:

- Custom Grade Doors - 2 days
- Applied Molding Doors - 7 days
- Semi-Custom and 5 Piece MDF Doors - 2 days
- Dovetail Drawer Boxes - next day
- Dovetail Drawer Boxes w/Dado Front - 2 days
- Edge glued panels (glue-ups) - next day
- Edge glued panels w/ a profile - 2 days
- S4S and Moldings - next day

***Mullwoods requests that you check your order upon delivery for completion. We cannot be held responsible for missing parts after 1 week from delivery.***

## Returns for Credit

All returns need appropriate paper work filled out. Please provide Mullwoods with the appropriate order/invoice # and the reason for the return.

- Mullwoods insists that all product(s) in question be returned for review.
- In an effort to minimize future returns, each returned part is reviewed by the department responsible.
- Mullwoods reserves the right to decline credit if the product is determined to fall within our specifications for that product line. In this event, you will receive the product back and be responsible in full.
- Mullwoods strives to process all credits in a timely manner. Credits are typically handled within two or three days of notification.
- Please contact us promptly if you feel that we have made an omission.





## UPS and FedEx Size Parameters and Costs

- Size limitations 24"x 60" on all doors (limit of 15 doors to ship via UPS/FedEx)
- Size limitations are limited to 4"x24"x24" on all Dovetail Drawer Boxes
- (Limit of 6 assembled boxes via UPS/FedEx.)
- Length limitations of 8' on all moldings and S4S
- Size limitations 24" x 60" on all edge glued panels (Limit of 15 edge glued panels to ship via UPS/FedEx.)
- Oversized packages are based on actual charges and are subject to change.
- UPS/FED-EX charge based on dimensional weight.
- Mullwoods will make every effort to ship your product via the most economical way.
- Order size may lead to an adjustment in your shipping method.

## Shipping Costs

- Our ordering system is automatically synced to UPS/FED-EX cost centers to pull each shipments cost. All costs come directly from UPS/FED-EX, and will be based on dimensional weight. Pricing is subject to change without notice.
- There is a minimum charge of \$35 Per UPS/FedEx delivery.
- COD deliveries must be prepaid prior to shipping (*see COD Accounts page 18*)
- Additional residential charges may apply at the discretion of UPS/FED-EX.



## Shipping Damage with UPS, FedEx, or Common Carrier

- Damage Claim – We take appropriate measures to ensure safe delivery. On occasion, damage will occur using UPS, FedEx, or an LTL carrier. In this event, please follow these procedures:
- Alert the delivery driver of possible damage before you sign the bill of lading. (Have the driver write “damaged” on that bill.)
- When possible, take a picture of package/pallet before and after unwrapping. (Please forward this to us for assistance in a prompt claim resolution.)
- If product delivered is damaged beyond repair, you have the right to refuse delivery because of damaged product.

***IN CASE OF THE ABOVE SCENARIOS, PLEASE NOTIFY US IMMEDIATELY FOR  
REMAKE AND CLAIM PURPOSES.***

## Common Carriers

- All freight costs are based on the weight and cubic feet of the product being shipped. We can only provide an estimate of freight until all product is finished and weighed.
- Mullwoods works directly with several freight companies on a daily basis to ensure the most competitive freight rates and most reliable schedules.
- Additional delivery charges may apply at the discretion of the freight company for:
  - Residential Delivery
  - No dock to unload at - common they charge extra for hand unload situations
  - Longer pallet premiums

## COD Accounts

- Mullwoods requires that all C.O.D. customers who receive shipment via UPS and FedEx prepay the entire invoice(s), including freight charges, prior to product shipping.
- Common carrier shipments; the invoice must be prepaid and freight will be billed after delivery.
- All COD deliveries arriving on Mullwoods’s fleet of trucks must be paid at point of delivery.
- Mullwoods drivers are instructed to return all products back to Mullwoods if payment is not received.



## Applying for Credit with Mullwoods

- New customers must submit a credit application with Mullwoods to receive credit.
- Without an approved credit application, all orders will be considered COD.
- The credit application must be complete, including all reference (trade and bank) along with contact information (must include a phone, fax, or email) and signed approval.
- Once credit is approved, the customer will receive approval via phone, email, or letter.

## Payment Terms / Credit Policy

- Our payment terms are Net 30 days and strictly enforced.
- A service charge of 1.5% of the invoice total will be charged on all invoices not paid within 30 days of the invoice date.
- The 1.5% charge is calculated daily, meaning the first day past due, the system will add 1.5% of finance charges to the invoices.
- The % will then continue to increase daily.
- Finance charges are calculated daily and applied to the account month. Each month when the finance charges are added to the invoice, it is based on the number of days past due.
- On accounts over 60 days, no new orders will be processed and no completed orders will be shipped until past due balances are paid.
- On accounts over 90 days, the account will be put in a HOLD status and no additional activity will be allowed until the entire account is paid in Full.
- When the account reaches the approved credit amount, you will be notified and the account will be put in a HOLD status until the account has an open amount of credit available.

## Payment Methods

- Currently accepted payment methods are check (personal or certified), credit cards, and cash.
  - Payment may be received via fax, email, or mail. Fax and emailed checks must be a legible.
  - (Scan or picture) image of the check.
  - Credit cards carry 2.3% surcharge
  - Electronic payments available (Quick Check) - bank account transfers
  - Debit cards not accepted



# Warranty of Cabinet Doors

- Mullwoods warrants the structural integrity and craftsmanship of all of our cabinet doors up to one (1) year from the original ship date.
- Mullwoods does not consider natural wood characteristics a defect.
- Pin knots, pith, gum, mineral streaks, burls, sap, differing grain patterns, minor color variation, and specie specific cellular abnormalities all fall under “natural.” (*Full list in Wood Specie definitions.*)
- Mullwoods will not warrant doors that are deemed to have been placed in an unsuitable wood environment.
- *All wood is affected by the environment in which it is placed. Relative humidity has the largest impact on wood movement; but heat, dryness, and cold are also contributing factors to wood movement.*
- Mullwoods does not warrant doors that are not sealed or finished within two (2) weeks of delivery. We highly recommend that all wood doors be finished promptly upon arrival.  
*Extreme urgency is recommended with the finishing of wooden specialty mullions. These types of mullions can be vulnerable in strength when not finished promptly and then exposed to environmental changes.*
- Mullwoods’s warranty covers the replacement of the door and return shipping only. It does not cover finishing, installation, labor, or any additional materials used along with our products.
- Solid wood products must be manufactured in a manner to allow for expansion and contraction.
  - Warp tolerance – up to 1/8” allowed up to 48”
  - Bow tolerance – up to 1/16” under 40” and up to 1/8” on 40”+*Mullwoods will not warrant any door or end panel over 24” wide or 48” long, regardless of the number of panels. This applies to every style of door that we manufacture.*
- As wood ages, it will change color. This is not considered a defect or a warranty claim.
- Mullwoods’s warranty is not responsible for improper handling after delivery is accepted.
- Applied molding mitered joints are vulnerable to slight joint separations through the yearly temperature changes: swelling in warm/humid and shrinkage in cool/dry climates. These joint separations are not considered a defect or warranty claim.
- Mullwoods does not consider leaking space balls to be a defect. This is not a warranty claim.



## Warranty of Cabinet Doors (cont.)

- End Panels, regardless of size and number of panels, are treated just like a door in terms of warranty coverage.
- Glass Doors, Frame Only, Mullions, Special Mullions
- All glass doors follow same door warranty for warp and bow. Mullwoods strongly urges that extra precautions are taken to keep all styles of glass doors flat and finished in a timely manner.
- Mullions & moldings inserted on top of panels or frames are not warranted due to the panel's ability to move and damage the mullion's structure.

***Mullwoods requests that you check your order upon delivery for completion. We are not responsible for missing parts beyond 1 week after delivery.***





## Warranty of Dovetail Drawer Boxes

- Mullwoods warrants the structural integrity and craftsmanship of all of our Dovetail Drawer Boxes Up to one (1) year from the original ship date.
- Mullwoods manufactures our dovetail drawer boxes with no color spec. (*See dovetail drawer box product offering for specie descriptions.*)
- *Mullwoods* does not consider natural wood characteristics a defect.
- Pin knots, pith, gum, mineral streaks, burls, sap, differing grain patterns, minor color variation, and specie specific cellular abnormalities all fall under “natural.”
- Mullwoods will not warrant dovetail drawer boxes that are deemed to have been placed in an unsuitable wood environment.
- All wood is affected by the environment it is placed. Relative humidity has the largest impact on wood movement, but heat, dryness, and cold are also contributing factors to wood movement.
- Mullwoods’s warranty covers the replacement of the dovetail drawer box and return shipping only. It does not cover finishing, installation, labor, or any additional materials used along with our products.
- As wood ages it will change color. This is not considered a defect or a warranty claim.
- Mullwoods’s warranty is not responsible for improper handling after delivery is accepted. - Tolerance on size- +/- 1/32” for squareness, on assembled boxes with bottom inserted.
- Smallest dovetail box we can machine and assemble: 1” x 4” x 4.5”
- Largest dovetail box we can machine and assemble: 20” x 60” x 60”

***Mullwoods requests that you check your order upon delivery for completion. We are not responsible for missing parts beyond 1 week after delivery.***



## Warranty of Edge Glued Panels (Glue-ups)

- Mullwoods warrants the structural integrity and craftsmanship of all of our Edge Glued Panels for up to one (1) year from the original ship date.
- Mullwoods does not consider natural wood characteristics a defect. Pin knots, pith, gum, mineral streaks, burls, sap, differing grain patterns, minor color variation, and specie specific cellular abnormalities all fall under “natural.”
- Edge Glued Panels smaller than 40” x 96” are warranted not to warp more than 1/8”
- Panels over these parameters are not warranted for warp.
- Mullwoods will not warrant Edge Glued Panels that are deemed to have been placed in an unsuitable wood environment.
- All wood is affected by the environment it is placed. Relative humidity has the largest impact on wood movement, but heat, dryness, and cold are also contributing factors to wood movement.
- Mullwoods’s warranty covers the replacement of the Edge Glued Panel and return shipping only. It does not cover finishing, installation, labor, or any additional materials used along with our products.
- As wood ages it will change color. This is not considered a defect or a warranty claim.
- Mullwoods’s warranty is not responsible for improper handling after delivery is accepted.
- Tolerance on CTS +/- 1/32”
- Uncut Edge Glued Panels may have up to 1/4” in width and 3/4” in length of overages. These overages may vary from job to job.
- Sanding grit: Finish sanded at 180 grit

***Mullwoods requests that you check your order upon delivery for completion. We are not responsible for missing parts beyond 1 week after delivery.***



## Warranty of S4S/Molding

- Mullwoods does not consider natural wood characteristics a defect. Pin knots, pith, gum, mineral streaks, burls, sap, differing grain patterns, minor color variation, and specie specific cellular abnormalities all fall under “natural.”

*(Please see our Wood Species section on pages 49-58, for additional clarity.)*

- Mullwoods will not warrant S4S/Moldings that are deemed to have been placed in an unsuitable wood environment.
- All wood is affected by the environment it is placed. Relative humidity has the largest impact on wood movement, but heat, dryness, and cold are also contributing factors to wood movement.
- Mullwoods’s warranty covers the replacement of the S4S/Molding and return shipping only.
- It does not cover finishing, installation, labor, or any additional materials used along with our products.
- Warp tolerances
- Warp up to 1/8” is warranted under 48”
- As wood ages it will change color. This is not considered a defect or a warranty claim.
- Mullwoods’s warranty is not responsible for improper handling after delivery is accepted.
- Mullwoods does not warrant against material that is not kept in a flat state after delivery.
- Mullwoods holds the right to modify our list prices on orders that are specified outside the species limitations. (Ex. 6” wide 10’ long clear white oak with no sap on face or edges.)

***Mullwoods requests that you check your order upon delivery for completion. We are not responsible for missing parts beyond 1 week after delivery.***



Customer Notes:



MULLWOODS

P: 330.674.5252 F: 330.674.1877 [www.mullwoods.com](http://www.mullwoods.com)

# Mullwoods Product Offering

## Cabinet Doors:

Mullwoods offers three options for cabinet doors: Custom, Semi-Custom Grades, and 5 Piece MDF.

## General Custom Grade Door Facts:

- Mullwoods constructs all doors with a full 30 mm Dowel in addition to our 1/2" cope. The Dowel is 6 mm (.236") in diameter which fits perfectly inside our 1/4" thick at cope parts.
- Mullwoods refers to door framing as uprights (stiles) and cross pieces (rails.)
- Mullwoods refers to door sizing as width x height.
- Our standard "Custom Grade" framing is 2 1/2" stiles and 2 1/2" rails. You may request any width. Indicate if the framing widths are different than our standard. (*Effective 6.19.23*)
- Standard framing will vary with certain applied molding combinations.
- All Mullwoodss, regardless of the grade, adhere to a tolerance of plus or minus 1/32."
- Warp tolerance – up to 1/8" warp on doors under 48."
- Bow – Mullwoods warrants bow: over 1/16" under 40" and over 1/8" on 40-48."
- All Mullwoodss, have a stain groove that allows stain onto the panel, so pre-staining panels is not necessary.
- All "Custom Grade" doors have a color and grain matched center panel (exception paint grade) and are hand sanded to 180 grit.
- All doors have a maximum sanding width of 50".

**Mullwoods encourages that ALL DOORS THAT EXCEED 48" in length be made into a multiple panel product. You must specify on all multiple panel doors how many panels that you want. Mullwoods will not assume how many panels that you may want based on door size.**

**Mullwoods will not warrant any door or end panel over 48" long, regardless of the number of panels.**

**Doors must be ordered by "exact size" and not opening size. Mullwoods does not figure door sizes off of opening dimensions.**





## Mullwoods Product Offering (cont.)

### Custom Grade:

- Mullwoods's original line of doors
- All center panels are color and grain matched
- Constructed with a 1/2" cope and 30 mm Dowel

*\*Exceptions are glass and wide inside edge profiles. (Victorian Classic, Oxford Square, and 1530)*

- All species and profile options available (see door catalog for options)
- Minimum panel size that can be raised: 3 ½" x 3 ½"
- Minimum measurement between framing to have raise:
  - 3" between uprights to machine a full raise on most raise options
  - 4" between uprights that have an applied molding applied that hangs over inside edge to machine a full raise on most raise options
- Shortest cross-piece that can be machined
  - Panel – 3 ½"
  - Glass – 4"
- Arches, Cathedrals, and Roman Designs
- No less than 8" opening to achieve full detail of profile
- 5 piece drawer front: Standard framing size 2 1/2" stiles 1 5/8" rails automatically receive HORIZONTAL grain. (You must specify if want vertical grain.)
- V-Groove and Beaded Panels receive vertical grain. Panels with vertical grain can be no wider than 30."
- Horizontal grain is available, upon request.
- ProTable: Max measurable 40" x 58"
- Extreme urgency is recommended with the finishing of wooden specialty mullions. These types of mullions can be vulnerable in strength when not finished promptly and then exposed to environmental changes.

***Mullwoods will not warrant any door or end panel over 48" long, regardless of the number of panels.***



## Dowel Construction Fact Sheet

Transitioning our Custom Door from .375" cope and 1" Mortise and tenon to .50" cope and 30mm dowel construction was significantly vetted from numerous perspectives. This transition to dowel construction brings added joint stability, consistency, scalability that positively impacts lead times and added safety features.

- Each multi grove dowel is 6mm in diameter and 30mm in length
- Each dowel will be inserted 15mm into each framing piece
- The 6mm (.236") diameter dowel fits inside our .25 thick at cope parts for added stability
- Glue is applied within the cope & rail and inside the dowel hole
- Two dowels in each joint add 1.92" of glueing surface inside each door joint
  - 1 dowel will be used when framing is 2" and under
- All 1", arch variations, multiple panel door and end panels will receive dowels as well

### Glass Door Adjustments:

- New calculation on achieving glass sizes
  - Overall dimensions - framing widths + 7/8" = glass size
- NO Glass doors will have dowels inserted.
- Just like in our previous Mortise & tenon construction had no tenon. The 1/2" cope brings adequate joint strength

### Profiles Without Dowels:

- All Glass profiles
- Victorian Classic
- 1530

### Profiles that were eliminated do to lack of demand:

- 1505
- 1510
- 1515
- 1520
- 1535



# Priming of Doors

Our primers are post catalyzed acid cure systems. These are compatible with many high-quality topcoats. Prior to priming, the wood/MDF is prepared to except coating materials such as putty. The wood/MDF is then sanded to remove any putty and provide a smooth uniform coating to it so it will accept the next primer or paint properly.

## Our priming process consists of:

- 2 coats of primer on the face and one coat on the back. All coatings are applied with a Makor - Q-One Robotic Sprayer & Flatline Oven System
- The primer is applied at 3.5-4.0 wet mills
  - The wood/MDF is scuffed between coats with:
    - 320 Mirka Abranet – screen is used for sanding flat surfaces
    - 320 3M sponge is used for sanding profiled edges
  - There is no sanding to the back side after the primer is applied or to the face after the second coat of primer.

Customers should scuff sand the primer using a 320-grit sandpaper and wait no more than 24 hours before applying any finish. If 24 hours has passed, all unpainted surfaces must be scuffed again and the coating must be applied before a 24-hour period has expired. All surfaces must receive the sanding step in order to achieve mechanical bond.

Primers are subject to some natural grain raising during the priming process, which is not considered a defect. Normal sanding and preparation for the primer-topcoat application will remove these fibers

Our products are manufactured using wood & MDF materials that will expand and contract with fluctuation in climate, temperature and humidity. This movement of the wood & MDF may cause fracturing anywhere sub- components have been joined together.

Testing for compatibility and adhesion between primers and customers finishes should take place on a test door prior to finishing any large items or multiple pieces.

Mullwoods will not warranty products do the incompatibility issues between primers and or topcoat on the surface.

Primer colors available are White, Grey, and Black

Schedule – adds three days to door schedule



# Wire Brushing

## Process

- This process takes flat stock wood parts and opens the soft fibers within the grain of each face that is brushed. The textured wounds that this rigid wire brush creates within the grain will be both present to sight and touch. All product will be brushed with the grain only.
- The wire brush head is very rigid and does not flex to brush the contoured portions of any profile.
- The machining will give a consistent wire brushed wound across the entire face and length during every pass of the machined part. A hit or miss application is not an option.
- We have found that denser woods (Red Oak, White Oak, Walnut, Hickory, etc.) accept this application best. Wire brush is available on all wood species, including plywood and MDF but we encourage you to order samples prior to starting projects to have clarity on expectation.

## Wire Brushing Aggression Options:

You must specify which option is required for your application. All options carry same costs.

**Light** – Slightly weathered feel but not overwhelming. Grain is slightly raised, and is barely noticeable to both sight and touch. Still offering a perfect look for stain to soak into the open soft fibers and give the desired look of an “aged feel”.

**Moderate** – True “aged/weathered” look. More of an intense application and is noticeable to both sight and touch. Grain is raised and soft fibers are open more dramatically than the “light brushing option”. We feel this is a great choice when your desire is to make a statement but not overwhelming.

**Aggressive** – Most intense application. Raised grain is very noticeable, and soft fibers are dramatically open for a very dramatic look. Great option for any stain, glaze or paint application to emphasize the raised grain/weathered look.



## Wire Brushing (Cont.)

### Specifications:

Doors, End Panels, 5 Piece Drawer Fronts

Individual door parts are run prior to assembly. Joints will have visual appearance of a slight joint offset (not smooth and flush like a non- brushed door). Wire brushing will occur on the flat face of the frame and flat face of the panel only. Wire brushing is not applied to edges, contoured profiles or the backside of the product. The backside of the door will be machine sanded and the face will be lightly sanded with a hand held orbital to remove fiber particles. Pricing is available through our sales consultants or customer service team

### Options:

MDF Panel – Yes

¼" Plywood – No

Semi-Custom Doors - Yes

Mullions – Yes (country square only)

All Mitered Edge, Applied Molding Door/Fronts - No

Applied Molding – No

Heritage Plank – Yes

Deep V Groove Plank – Yes

Pegs – No



## Wire Brushing (Cont.)

### Edge Glued Panels, Edge Glued Panels with Profile & Plywood

EGP & EGP w/profile will be brushed only on the face side. Profiles will not receive the brushed look, only flat surfaces. Plywood ¼" thick cannot be brushed due to concerns over veneer thickness and core stability. All other plywood thicknesses are available. (1 SF minimum per panel) (Square Foot = Width x Length / 144)

### Custom Grade Slab Drawer Fronts

CG Slabs will be brushed only on the face side. Profiles will not receive the brushed look, only flat surfaces.

### S4S, Moldings

(limited to flat profiles) S4S can be brushed up to four sides. The minimum thickness to be able to brush edges is ¾". Moldings - flat profiles will look best. Profiles with both flat and contour, only the flat will receive the brush (the brush head is rigid and does not flex to machine contoured portions of these profiles).

Normal material LF cost per piece and cut to size costs per piece still apply. Assembly per frame.

### Additional

Schedule: Wire brushing does not add any time to individual product schedule. Large projects may add to our lead times.

Min/Max thickness: ¼" -10". We can brush all four edges of S4S, must be minimum of ¾" thick to brush edges.

Maximum width for wire brushing EGP, CTS Plywood and door panels is 34 ½". All other product specifications are the same as presented in our customer manual.



# Hinge Options - Knife Hinge

## Knife

## Used For...

#3

1/4" Full Overlay

#4

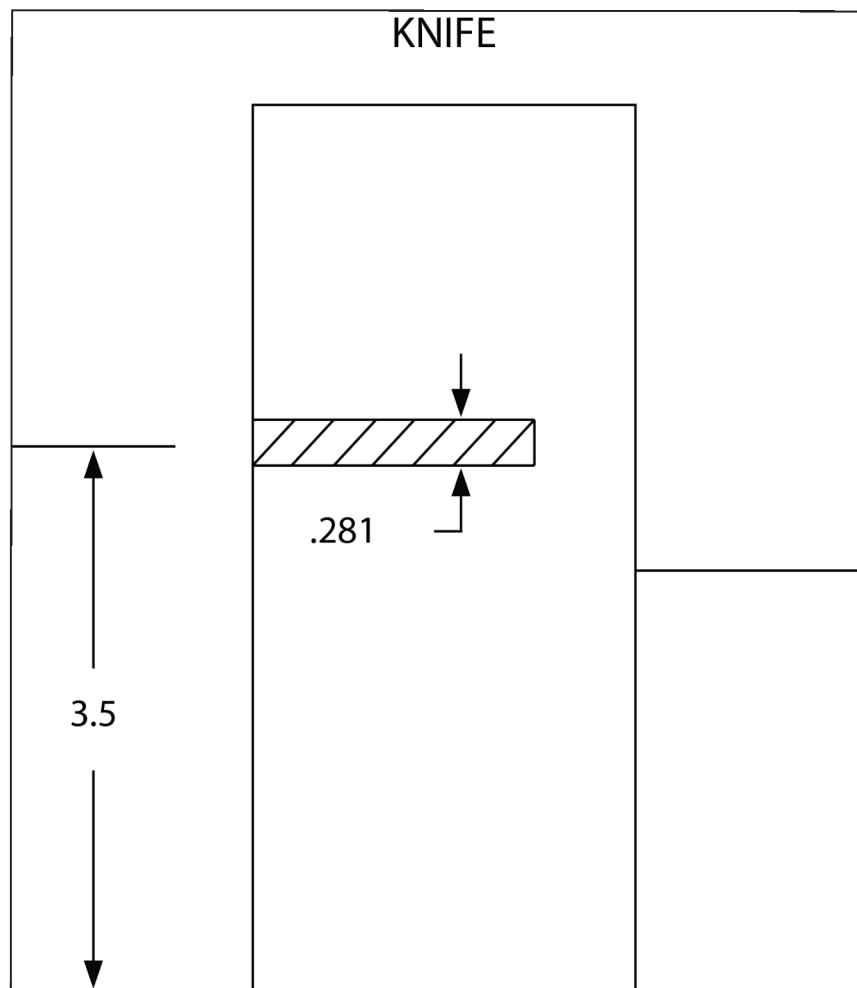
3/8" Inset with 1/4"

#5

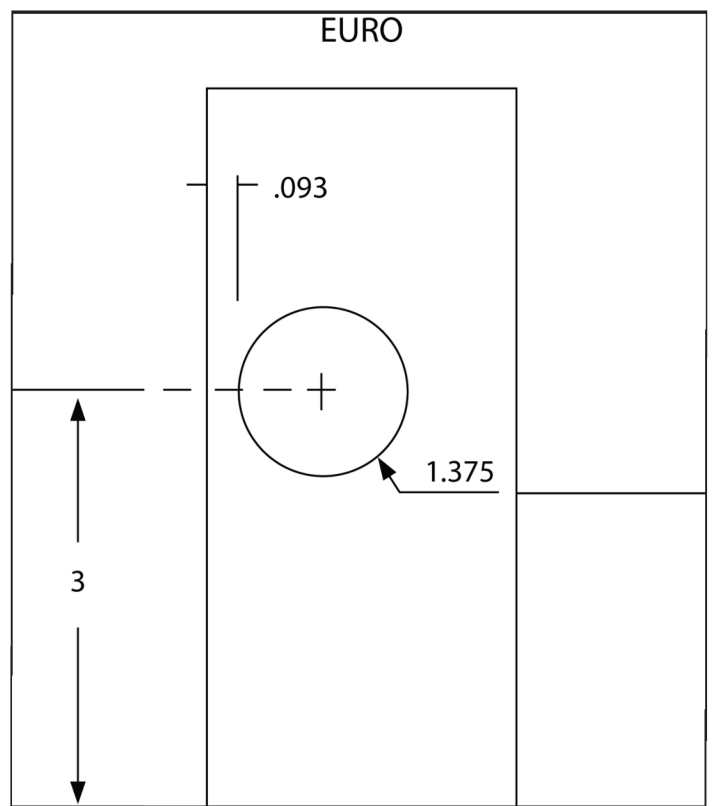
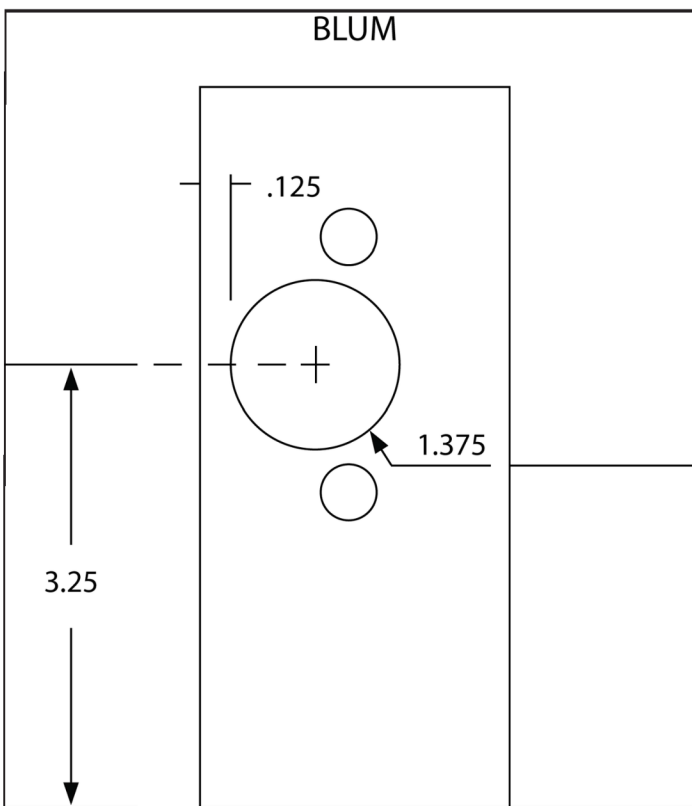
Overlap 1/4" Full Overlay

#6

1/2" Full Overlay



# Hinge Options - Blum & Euro





## Mullwoods Product Offering (cont.)

### Edge Glued Panels (Glue-Ups)

- All 4/4 Edge Glued Panels are color matched. All 5/4 Edge Glued Panels are color and grain matched. Additional color matching is available when ordered as “select” specie.
- The face of each Edge Glued Panel will be free of defects.
  - Natural wood characteristics are not considered a defect. (See wood specie definitions for natural characteristics.)
- Mullwoods rips each stave of wood to insure square-ness prior to gluing.
- Max size- 47.5” x 156” is our maximum width and length.
  - Mullwoods can accommodate orders of Edge Glued Panels wider than 47 ½”, however, these orders will be processed as two Edge Glued Panels and the customer will be responsible for gluing and sanding two pieces together.
- CTS tolerance + or - 1/32”
- Max CTS available is 47 ½” x 156”
- Non CTS Edge Glued Panels will have up to ¼” in width and ¾” in length of oversize.
- Overages may vary. Do not order smaller in hopes of achieving your net dimension with the overages.
- Sanding grit build up: 120-150-180 (use 3 head sanders)



## Mullwoods Product Offering (cont.)

### S4S (Surfaced Four Sides)

- Mullwoods manufactures to the customers specified width.
  - S4S is predominately used for the construction of face frames.
  - S4S stands for surfaced 4 sides.
    - Sanding is optional.
- Have the ability to mold finished widths ranging from ½" to 8 ½"
- Have the ability to mold finished thicknesses ranging from 3/16" to 3 ½"
- Random length consists of 8-12'. Length footage can run up to 10% more than what you ordered.
- Longer lengths are available and based on lumber inventory may carry a longer than normal schedule.
- Specified lengths are available up to 16'. - Specified lengths over 6' carry an increased price. (See S4S pricing) Some species will have restrictions based on width and length.
- Sanding is available on the front and back for an additional cost per lineal foot.
- Due to safety and machining concerns, we are not able to sand edges.
- Mullwoods holds the right to modify our list prices on orders that are specified outside the species limitations. (Ex. 6" wide 10' long clear white oak with no sap on face or edges.)



# Mullwoods Product Offering (cont.)

## Edge Banding

- We offer edge-banding in various stock species , tape thickness, and profile options.

## Moldings

- Mullwoods manufactures moldings on one of three molders to customers selected profile.
- See our molding catalog for to scale pictures of our profiles. Also available on our website.
- All moldings are run per order. We do not stock any moldings.
- Have the ability to mold finished widths ranging from ½" to 8 ½".
- Have the ability to mold finished thicknesses ranging from 3/16" to 3 ½".
- Random length consists of 8-12'.
- Random length can run up to 10% more than what you ordered.
- Longer lengths are available and based on lumber inventory may carry a longer than normal schedule.
- Specified lengths are available up to 16'.
- Specified lengths over 6' carry an increased price. (See molding pricing for cost.)
- Some species will have restrictions based on width and length.
- Profile Sanding is available for an additional cost per lineal foot.
- Sanding of flat surface is available. (I.e. baseboard)
- Due to safety and machining concerns, we are not able to sand edges. Mullwoods holds the right to modify our list prices on orders that are specified outside the species limitations. (Ex. 6" wide 10' long clear white oak with no sap on face or edges.)



# Wood Species Used by Mullwoods

## Alder

- **Color:** Heartwood is pink to red, sapwood is yellowish white
- **Natural Characteristics:** Softer wood, subtle grain does not have great width or length, fairly uniform in color
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Alder, Knotty

- **Color:** Heartwood is pink to red, sapwood is yellowish white
- **Natural Characteristics:** Softer wood, subtle grain does not have great width or length, knots, cracks and mineral
- **Mullwoods's Custom Door Spec:** All sound knots allowable
- Within the knot itself, voids cannot go all the way through the product
- No color or grain matching
- No large open cracks; small cracks allowable near knots
- Backside of product may be filled with epoxy to fill void
- Unlimited mineral sap allowed
- Tear out and chatter allowed

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Ash

- **Color:** Heartwood is creamy white to light brown and can have some darker brown streaks. Sapwood is yellowish white to tan in color.
- **Natural Characteristics:** Very wide open pronounced grain, occasional dark brown streaks
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel, subtle variation from heartwood to sapwood light brown to creamy white can be expected.
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Birch, Red

- **Color:** All heartwood; reddish brown
- **Natural Characteristics:** Straight grained, occasionally wavy grain, uniform color with occasional curl
- **Mullwoods's Custom Door Spec:** Color and grain matched center panels, consistent reddish brown color that shows fairly straight grain
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Birch, Sap, Yellow

- **Color:** Mullwoods uses Sap Yellow Birch. Crisp white to yellowish tint in sapwood. Heartwood is minimal but will range from light reddish brown to pink
- **Natural Characteristics:** Uniform grain, small pin knots and shiny burl. Birch has a tendency to have splotchy areas during finishing process
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel, small pin knots are acceptable with in the face.
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Cherry

- **Color:** Heartwood color ranges from pink to dark reddish brown. Sapwood ranges from white to yellowish white
- **Natural Characteristics:** Sap, mineral, pitch pockets, thin dark gum streaks, small pin knots
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel, no sap in the face, try to minimize pitch pockets and gum streaks but they are natural characteristics. Occasional small pin knots acceptable as well as sap and mineral with in profiles.
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards. Select may still have some pitch pockets and gum.

*The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.*

***This is not considered a defect.***



## Cherry, Knotty

- **Color:** No color and grain match, heartwood color ranges from pink to dark reddish brown. Sapwood ranges from white to yellowish white. Will also contain knots and cracks
- **Natural Characteristics:** Sap, mineral, pitch pockets, thin dark gum streaks, knots, cracks
- **Mullwoods's Custom Door Spec:** All sound knots allowable
- Within the knot itself, voids cannot go all the way through the product
- No color or grain matching
- No large open cracks; small cracks allowable near knots
- Backside of product may be filled with epoxy to fill void
- Unlimited mineral sap allowed
- Tear out and chatter allowed

## Cherry, Sap

- **Color:** Heavy sapwood throughout ranging from white to yellowish white, will have some heartwood that is pink to dark reddish brown. No color spec or limit on mineral
- **Natural Characteristics:** Heavy sap & mineral, pitch pockets, thin dark gum streaks, small pin knots
- **Mullwoods's Custom Door Spec:** No color or grain match, color is not a defect and there are no limitations on the amount of sap and mineral

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.  
This is not considered a defect.***



## Cherry, Rustic

- **Color:** No color and grain match, heartwood color ranges from pink to dark reddish brown. Sapwood ranges from white to yellowish white. Will also contain knots and cracks, some may not be sound and have voids within the defects
- **Natural Characteristics:** Sap, mineral, pitch pockets, thin dark gum streaks, knots, cracks, wide variety of defects, no rot or shake
- **Mullwoods's Custom Door Spec:** No color or grain match, and defects are unlimited, unlimited cracks allowed, open knots will not exceed 1" in diameter
- Tear out and chatter is not considered a defect due to the nature of specie.

## Elm

- **Color:** Yellowish white sapwood, heartwood is light to medium brown
- **Natural Characteristics:** heavy figure, wavy fuzzy grain, burls, occasional pin knots
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel, can expect straight and interlocked grain within the product, significant figure variation is to be expected
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***





## Hickory

- **Color:** Distinct difference from heartwood medium brownish to sapwood yellowish white
- **Mullwoods's Custom Door Spec:** Color and grain matched to have variation in Heart/Sap, all heart and all sap are available through select or super select options depending on application
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.
- **“Super Select”** is necessary in projects when all white or all brown is specified.

## Hickory, Knotty

- **Color:** Distinct difference from heartwood medium brownish to sapwood yellowish white, knots and cracks along with mineral and ingrown bark
- **Natural Characteristics:** same as Hickory, plus more character knots, cracks, and color variations
- **Mullwoods's Custom Door Spec:** All sound knots allowable
  - Within the knot itself, voids cannot go all the way through the product.
  - No color or grain matching
  - No large open cracks; small cracks allowable near knots
  - Backside of product may be filled with epoxy to fill void
  - Unlimited mineral sap allowed
  - Tear out and chatter allowed

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Hickory, Rustic

- **Color:** Distinct difference from heartwood medium brownish to sapwood yellowish white
- **Natural Characteristics:** same as Hickory, plus more character knots, cracks, and color variations, anything goes. See our specs below
- **Mullwoods's Custom Door Spec:** No color or defect specs, any color grade and defect is allowable
- Unlimited cracks allowed, open knots will not exceed 1" in diameter
- Tear out and chatter is not considered a defect due to the nature of the specie.

## Mahogany (Genuine)

- **Color:** Reddish brown to brown. Can vary a fair amount within color range. Occasional pale pinky brown.
- **Natural Characteristics:** Grain can be straight, wavy, and occasionally interlocked. Very durable specie against decay. Color and grain matched center panel within the natural color range.
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel within the natural color range.
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.  
This is not considered a defect.***



## Mahogany, African

- **Color:** Reddish brown to pale pinkish brown. Can be streaky color.
- **Natural Characteristics:** Ribbon stripe, occasional wavy grain and burls. Not as durable as Genuine Mahogany. Orange/brown deposits occasionally present in end grain.
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel within the natural color range.
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Maple, Hard

- Color: Sapwood is creamy white to off white, can have slight reddish brown tinge. Heartwood tan to mousey brown grey occasionally streaked with dark minerals
- Natural Characteristics: Straight grained, burls, wavy flame grain, splotchy, tiger, curl
- Mullwoods's Door Spec: Color and grain matched center panel. Possible to see all of the natural characteristics consistent with this specie
- "Select" upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Maple, Hard, Paint

- **Color:** From creamy white to dark brown and everything between
- **Natural Characteristics:** Straight grained, burls, wavy flame grain, splotchy, tiger, curl heartwood characteristics will be more prominent, blackish streaks and spots, has no color spec.
- **Mullwoods's Custom Door Spec:** Paint grades are not color and grain matched and will have significant color variation

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Maple, Soft

- **Color:** Sapwood is creamy to greyish white, heartwood can be brown to greenish brown with mineral.
- **Natural Characteristics:** Mineral streaks, curl, tiger, fuzziness, wavy grain, flecking
- **Mullwoods's Custom Door Spec:** Color and grain-matched center panels. Some dark spots can persist, but dark brown is not permissible. Natural characteristics are not considered defects on the flat or within machined profiles.
- **“Select”** upgrade available –Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Maple, Soft, Brown

- **Color:** Ranges from creamy white to dark brown and everything in between. There is no color spec on brown soft maple
- **Natural Characteristics:** Mineral streaks, curl, tiger, fuzziness, wavy grain, flecking
- **Mullwoods's Custom Door Spec:** No color and grain matching and there is no color spec. Natural characteristics are not considered defects on the flat or within machined profiles.
- **“Select”** upgrade available - Within this selection, no tiger will be present. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Oak, Red

- **Color:** Sapwood is pale white; heartwood varies from a light pink to wheat
- **Natural Characteristics:** Sap, mineral and pin knots, burls, pronounced grain and open pored
- **Mullwoods's Custom Door Spec:** Panels are color and grain matched. No sap or mineral in face, possible small pin knots acceptable and occasional sap and mineral within profiles
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Oak, Red, Quarter Sawn

- **Color:** Sapwood is pale white; heartwood varies from a light pink to wheat. Has a tight straight grain and fleck. Will naturally have more color variation than Red Oak, due to the sawing process. Looking at boards end, the wood rays will be approximately 60-90 degrees.
- **Natural Characteristics:** Sap, mineral and pin knots, fleck, fleck can splinter when profiled, some color variation
- **Mullwoods's Custom Door Spec:** A color range of light pink to wheat, may include brownish greys due to quartering process. Some light mineral streaks may be present
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Oak, Red, Rift Sawn

- **Color:** Sapwood is pale white; heartwood varies from a light pink to wheat. Has extremely tight straight grain and some fleck. Will naturally have more color variation than Red Oak, due to the sawing process. Looking at the boards end, wood rays will be approximately 30-60 degrees.
- **Natural Characteristics:** Sap, mineral and pin knots, pronounced straight grain, some color variation, occasional taper near end of grain, occasional swirls of grain.
- **Mullwoods's Custom Door Spec:** A color range of pale white to light pink and wheat. Will be color and grain matched as best as possible due to the nature of the specie, some variation is to be expected
- **"Select"** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Oak, Red, Sap and Mineral

- **Color:** Will have a wide range of color; including above color definitions. Not sourced specifically, a developed product from our Red Oak and Appalachian Red Oak lumber that we sorted back for sap & mineral.
- **Natural Characteristics:** Sap, mineral and pin knots, burls, pronounced grain and open pored
- **Mullwoods's Custom Door Spec:** No color or grain match, color is not a defect and there are no limitations on the amount of sap and mineral

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Oak, White

- **Color:** Light tan to brown heartwood, and creamy white to grey sapwood. Very subtle sapwood to heartwood contrast, with some mineral.
- **Natural Characteristics:** White Oak is mostly straight-grained with a medium-to-course texture. Having longer rays than red oak, white oak has more figure.
- **Mullwoods's Custom Door Spec:** Color and grain matched center panel. Possible pin knots acceptable and occasional sap and mineral.
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Oak, White, Quarter Sawn

- **Color:** Light tan to brown heartwood, and creamy white to grey sapwood. Some color variation can be expected, typically dark grey to brown in color. Looking at boards end, the wood rays will be approximately 60-90 degrees.
- **Natural Characteristics:** Color variation, straight grain, pin knots, flake, flame grain
- **Mullwoods's Custom Door Spec:** Minimal color sorting due to the nature of the specie, product will have color variation. Straight grain and flake are most prevalent. Possible small pin knots acceptable and occasional sap and mineral.
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***





## Oak, White, Quarter Sawn, Knotty

- **Color:** Light tan to brown heartwood, and creamy white to grey sapwood. Some color variation can be expected, typically dark grey to brown in color. Looking at boards end, the wood rays will be approximately 60-90 degrees.
- **Natural Characteristics:** same as Quarter Sawn White Oak, plus more character knots, cracks, and color variations
- **Mullwoods's Custom Door Spec:** All sound knots allowable
  - Within the knot itself, voids cannot go all the way through the product
  - No color or grain matching
  - No large open cracks; small cracks allowable near knots
  - Unlimited mineral sap allowed
  - Tear out and chatter allowed

## Oak, White, Rift Sawn

- **Color:** Light tan to brown heartwood, and creamy white to grey sapwood. Some color variation can be expected, typically dark grey to brown in color. Looking at the boards end, wood rays will be approximately 30-60 degrees.
- **Natural Characteristics:** Color variation, straight grain, occasional taper near end of grain, pin knots, flake & swirls of grain.
- **Mullwoods's Custom Door Spec:** Minimal color sorting due to the nature of the specie, product will have color variation. Straight grained, possible small pin knots acceptable and occasional sap and mineral.
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***





## Poplar

- **Color:** White to yellowish sapwood; straw-brown to greenish heartwood sometimes streaked with purple and black
- **Natural Characteristics:** light in weight, color range includes white, yellow, green, purple and black. Can have wide grain patterns and burls
- **Mullwoods's Custom Door Spec:** Important to specify finish/paint application for a clear expectation of color, minimal black and purple. Stain applications will receive a color and grain matched center panel, with occasional burls.
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

## Walnut

- **Color:** Mullwoods buys steamed walnut sapwood is a yellowish tan, heartwood ranges from light brown to a dark chocolate brown. Walnut often has a purple cast and darker streaks
- **Natural Characteristics:** pin knots, sap, mineral, tight burls, wavy grain
- **Mullwoods's Custom Door Spec:** Color & grain matched center panel, No sap in face, tight pin knots acceptable. Possible to see occasional flame grain
- **“Select”** upgrade available - Standard color and grain matching will receive tighter tolerances in the wood selection for this specie. The select upgrade is designed for projects where little or no stains are used as well as projects that request specs slightly beyond our standards.

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***



## Walnut, Knotty

- **Color:** Mullwoods buys steamed walnut sapwood is a yellowish tan, heartwood ranges from light brown to a dark chocolate brown. Walnut often has a purple cast and darker streaks
- **Natural Characteristics:** same as Walnut, plus more character knots, cracks, and color variations
- **Mullwoods's Custom Door Spec:** All sound knots allowable
- Within the knot itself, voids cannot go all the way through the product
- No color or grain matching
- No large open cracks; small cracks allowable near knots
- Backside of product may be filled with epoxy to fill void
- Unlimited mineral sap allowed
- Tear out and chatter allowed around all knots

***The use of veneered center panels will display a degree of color variation from the solid wood frame. This variation is considered normal and can be visible in all finishes, including Natural.***

***This is not considered a defect.***





## Mullwoods specializes in quality wood products, including:

- Dovetailed Drawer Boxes
- Clear Coating of Dovetailed Drawer Boxes
- Priming
- Paint Program (17 Standard Colors)
- Cabinet Doors
- Drawer Fronts
- Moldings/S4S
- Edge Glued Panels



### Doug Inman

Director of Sales

- 330-231-8332
- [dinman@mullwoods.com](mailto:dinman@mullwoods.com)

### Josh Mullet

Sales Manager - Component Division

- 330-231-7095
- [jmullet@mullwoods.com](mailto:jmullet@mullwoods.com)

### Will Crayton

Sr. Sales Consultant

- 330-231-1142
- [wcrayton@mullwoods.com](mailto:wcrayton@mullwoods.com)

### Chris Hansen

Sr. Sales Consultant

- Business Development
- 419-283-1085
  - [chansen@mullwoods.com](mailto:chansen@mullwoods.com)

Customer Service:

Colleen Uhl

[cuhl@mullwoods.com](mailto:cuhl@mullwoods.com)

Sara Hochstetler

[shochstetler@mullwoods.com](mailto:shochstetler@mullwoods.com)

## Online Ordering Available

6086 State Route 241  
Millersburg, OH 44654

P: 330-674-5252

F: 330-674-1877

[www.mullwoods.com](http://www.mullwoods.com)

Submit Orders:  
[Orders@mullwoods.com](mailto:Orders@mullwoods.com)