

M|R WALLS PRODUCTION PARTNERSHIP 2021

HELLO

We're happy you're thinking about partnering with M|R Walls to mill our projects in your area.

We want to send you CNC business as our pipeline expands, and fill capacity on your machines. We are exclusive to Corian® solid surface in the U.S. and Canada, and are connected to those sales and distribution networks, so **we will generate the business**, deliver the material to you, and pay you to mill it.

On a technical level, **we have configured more than 35 CNC locations** in the U.S. and internationally, so we've seen almost every challenge related to running our files, as well as CNC issues in general. So **we will train and teach you (at no cost)** to get your machine running our files correctly, and provide technical support along the way.

We value high quality, reliability and consistency in a CNC partner. We also believe "**good fences make good neighbors**," so this summary is for us to be clear about what we want from our partnership.

We look forward to working together!



WE PAY \$185 PER SHEET.

This is for **everything** from when the sheets arrive at your loading dock, to when they are finished and packed and ready for pick-up.

We pay **by the sheet** because we need a static price to quote consistently to our customers, but more importantly we want to pay fairly for **the steps we need** so our pipeline runs smoothly.

WHAT YOU NEED.

A three-axis (or more) machine **with a 12-foot bed**, and CAM software that runs our files. Most CAMs work, with a very few exceptions (noted **on page 6**.)

CUT OUR TEST FILE.

To begin, your CNC should be configured with the tool bits and speeds we recommend **on page 6**. We provide you **a test file** in DXF format to cut, available [here](#).

This test ensures your CAM is reading the file correctly, in particular the **variable Z-depth**. (This can be done on MDF rather than solid surface if preferred.) As mentioned, most CAMs work well, but if configuration tweaks are needed, we have videos and additional documents [here](#) as a starting point.

MILLING TIME.

Our Standard designs should take 45-75 minutes to cut, **an average of hour per sheet**, using the speeds and tools we recommend, As a baseline, our entry-level 3-axis Laguna machine cuts one sheet to our standards **in an hour** with these settings.



THE FOUR STEPS

1. Receive Material & Check It
2. CNC Program & Mill the Project
3. Dry Fit, Photograph & Label
4. Flat-Pack For Local Delivery (no Cross-Docking)*

(*Crating rate additional, to be **quoted**. See below.)

1. RECEIVE MATERIAL.

As mentioned, MRW exclusively uses Corian® solid surface in the U.S. and Canada, so deliveries will be either from a Corian® distributor or DuPont.

Upon delivery:

- Check for **scratched, cracked or chipped sheets**.
- Also **confirm the material has been sent sequenced** as ordered. There is no need to tilt the material, **the sequence numbers are visible on the edge band**, usually a 9-digit number. Please **photograph the numbers**, and confirm the last 4 digits all run in sequence.
- In the event of damage or a color issue, **photograph the problem** immediately and send to us, with the sequence number(s) of the damaged or mis-matched sheets.

(If material needs to be stored, see **page 7** for details.)



2. CNC MILL THE PROJECT.

We will **send a PO** with details about the project, including lead time (see lead times on **page 7**), tool specifications, and any special service requests (like thermoforming or pre-bonding.)

Our designers will **send the Production File** in DXF format, and PDF drawings to reference project layout and labeling.

Mill away!

After milling, the pieces may need to be **cleaned with a rough bristled brush** to remove any shavings, as these can wedge between seams.

3. DRY FIT, PHOTOGRAPH AND LABEL.

Finished **puzzle pieces need to be dry fit**: laid out on the floor to confirm they interlock perfectly as programmed.

Once laid out, they must be **photographed** as one **wide shot** of the whole piece, plus **close-up detail shots** of the fitted seams and faded borders.

These photos give both of us a record that the pieces were perfect when they left your shop.

Each puzzle piece should be **labeled** with painter's tape and Sharpie with the piece numbers from the Production File, for ease of 'solving the puzzle' on site. The sequence number should be removed with acetone or alcohol.

And for Colors, after cutting the surface will need to be finished with oil (see **page 7**) unless specified otherwise.



4. PACK FOR SHIPPING.

As noted above, our per-sheet rate is for flat packing for local delivery without cross-docking (~300 miles.) We recognize full crating requires more work, and we will approve crating quotes case-by-case.

We require flat packing to be securely palletized: **raised on 2x4s for pallet jack, foam layers as slip sheets between panels, and industrial grade stretch/shrink wrap** (and **straps** if needed) as well as **cardboard or stiff foam bumpers** on the edges.

Note: Only **10-12 sheets should be stacked per pallet**, as more than this can result in stress cracks or breaks.

Please **label the crate clearly** for no pick-up confusion, and record the **weight and dimensions**.

All packed shipments must be **photographed**. As with the dry fit, these photos are for your protection if there is a shipping mishap.

Let us know it is ready, send us the weight and dimensions, and **you are done**. Please invoice us based on the number of sheets.

GET STARTED

If you're interested, please confirm your machine meets the requirements, review the settings and tools we recommend, and **download the test file** (link [here](#)) to get started.

Let us know if it runs successfully, or if you need some consultation.

We look forward to hearing from you!



ADDITIONAL INFORMATION.

• Most **CAM software** runs our files successfully. If yours does not, even after we consult and work with you on it, we highly recommend:

- EnRoute - \$100/Month Subscription
- VisualCAM with RhinoCAM plug-in - \$1,500
(We use and love VisualCAM/RhinoCAM)
- ALPHACAM - \$10,000

To date, the few we know about that don't seem to work include Aspire, ArtCAM, and SurfCAM.

• These **speed settings** work best for us, and maintain the 1-hour average cut time on which sheet rate is based:

- Plunge, Engage, Approach = 40 inches/min
- Feed Rate = 320-390 inches/min
- Spindle Speed = 18,000 RPM

• Here are the **tool bits** we use:

Design Groove

- V90 Bit (most often used)
- 1" Ball Bit

Profile Cut

- 1/4" Endmill (preferred)
- 3/8" Endmill

Sometimes Also Needed

- 2" Ball Bit
- 1/2" Ball Bit
- V130 Bit
- 1/8" Endmill

Notably, it is important to **make sure the tools are sharp**. A tool should be replaced every few projects



ADDITIONAL INFO (CONT'D)

Cutting Board Oil. On projects with Colors, the surface should be oiled after cutting to finish. [Here](#) is the oil we use, although any food-grade cutting board oil will work. (Occasionally a project with Color will specify no oil, this will be in PO.)

Lead Times. Projects using **1-10 sheets generally need to be done within 3 weeks; 11-30 sheets within 4 weeks, and 30+ sheets within 5 weeks.** These lead times should not present a problem using the feeds and speeds above. Occasionally we might request a rush, which we can address case-by-case.

Storage of Material. Material should be stacked flat, and stored in such a way as to avoid bowing, getting scratched or dirty.

Pre-Bought Inventory. Depending on your storage capability (and preference) **we would like to pre-buy an inventory of sheets** and store them with you so they are on-hand for production. This **substantially reduces ordering time** on the pipeline (which improves cashflow speed!) – and it also represents **business from us** on which you can rely.

Additional Services. Some projects require additional services such as engraving or thermoforming or painting, which are less common than the 'plain vanilla' procedure above. We can discuss rates on a case-by-case as practical for your facility.