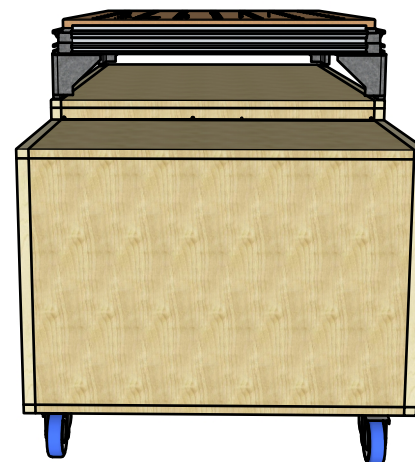
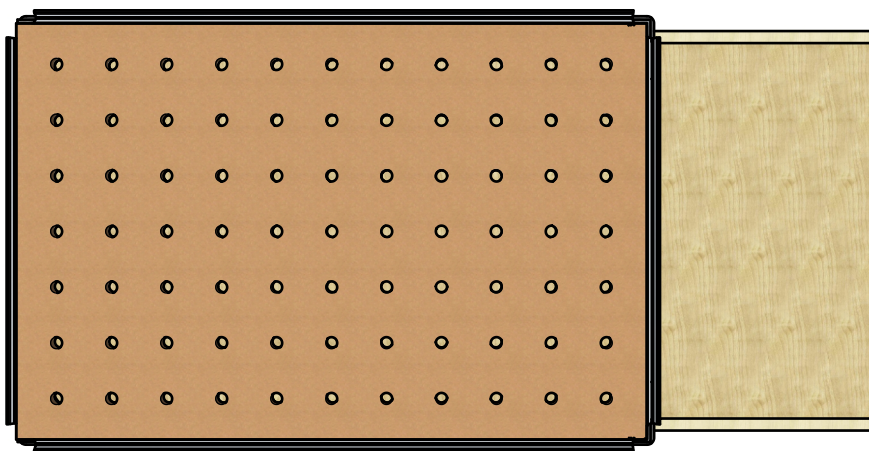
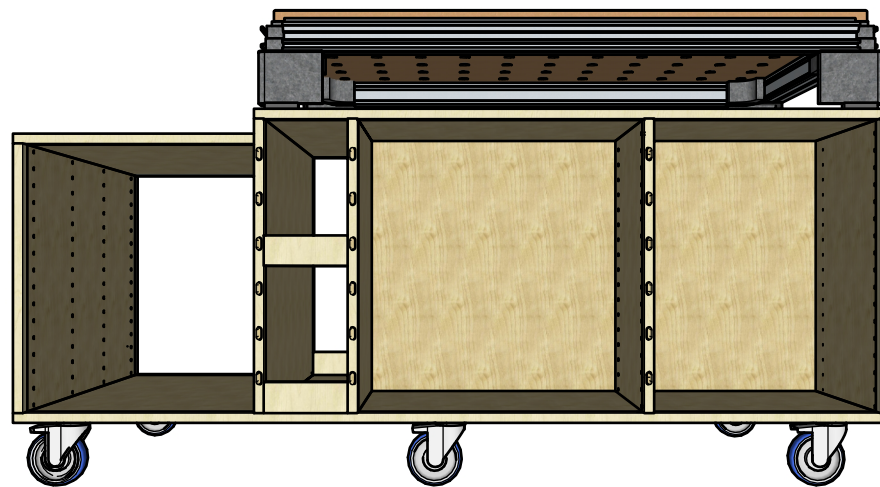
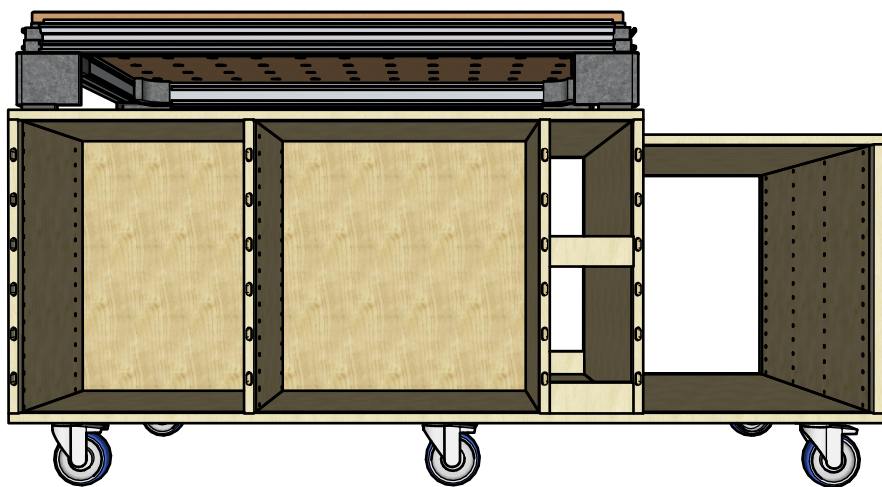




**FESTOOL®**  
Build Series

#4 MFT Rolling Work Station



# Tools that were used in this build.

- TSC 55K EB
- MFT/3
- OF 1010 EQ
- Kapex KS 120, UG stand and extensions
- CT 48 E
- Domino DF 500 Q
- ETSC 125Li sander
- RO 150 FEQ dual mode sander
- DTSC 400Li sander
- TID 18 impact drill
- T18 E drill driver
- CXS drill driver
- STM 1800 worktable

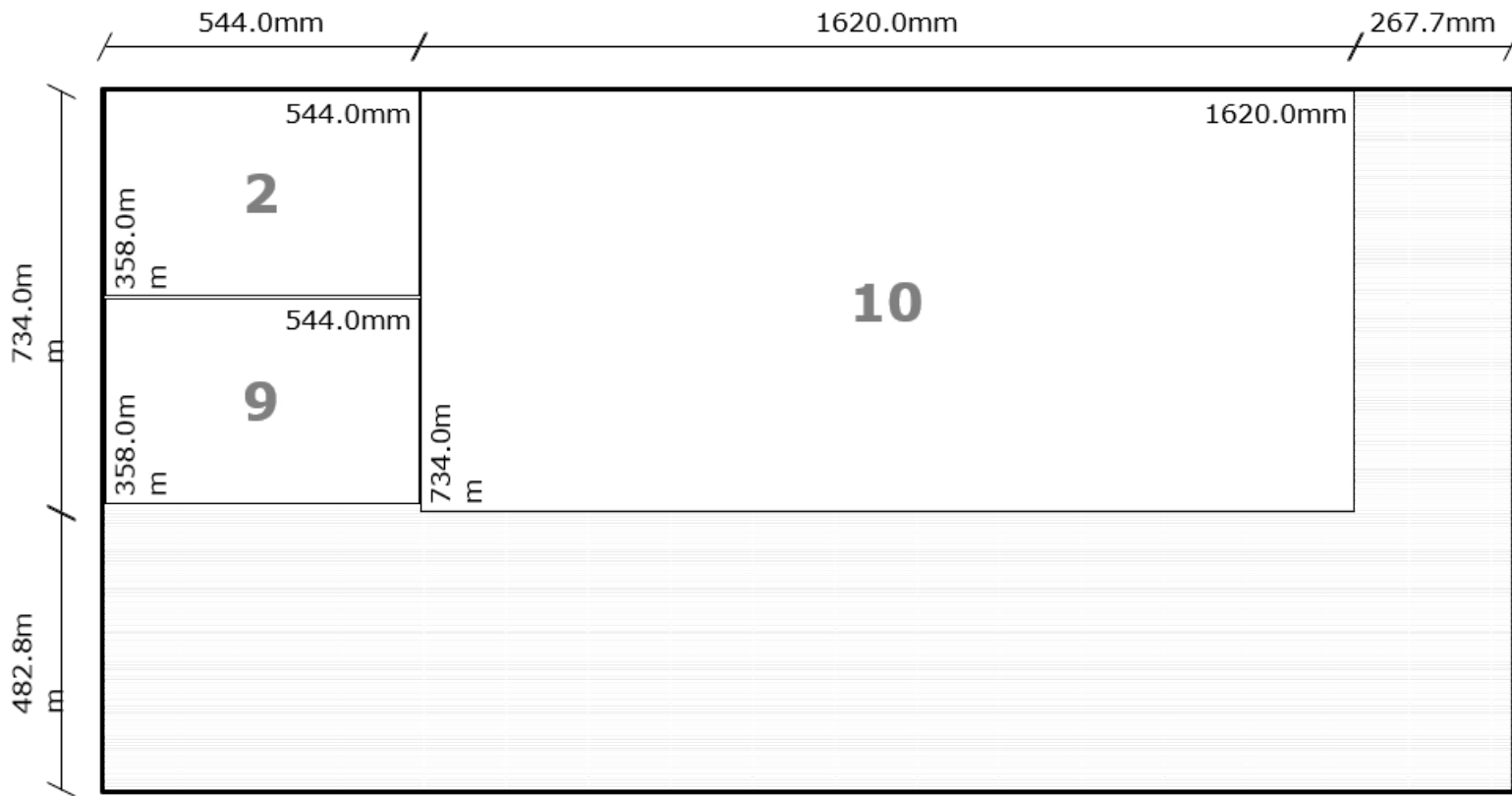
Visit [Festoolusa.com](http://Festoolusa.com) for more information on the tools above or [Festool.tv](http://Festool.tv) for other videos on the products.

# Dimensions, Material, and cutlist diagram

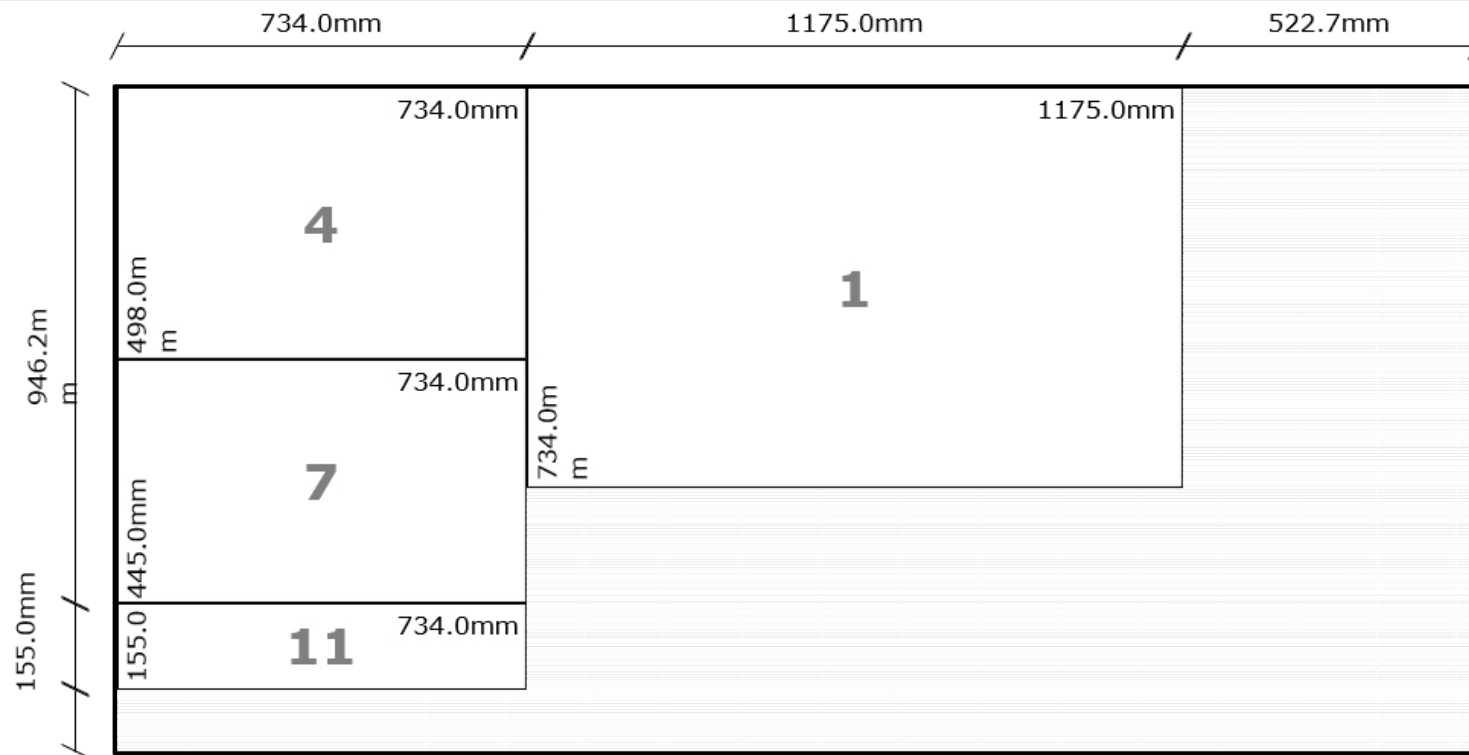
The dimensions and the cut list in these plans are based on the height of the standard MFT/3 and 4" casters so that the final version of the rolling MFT cart will be the same height as a standard MFT/3. The actual dimensions of some casters may vary.

Verify that the casters used in conjunction with the dimensions provided here will equal the same height as a standard MFT/3.

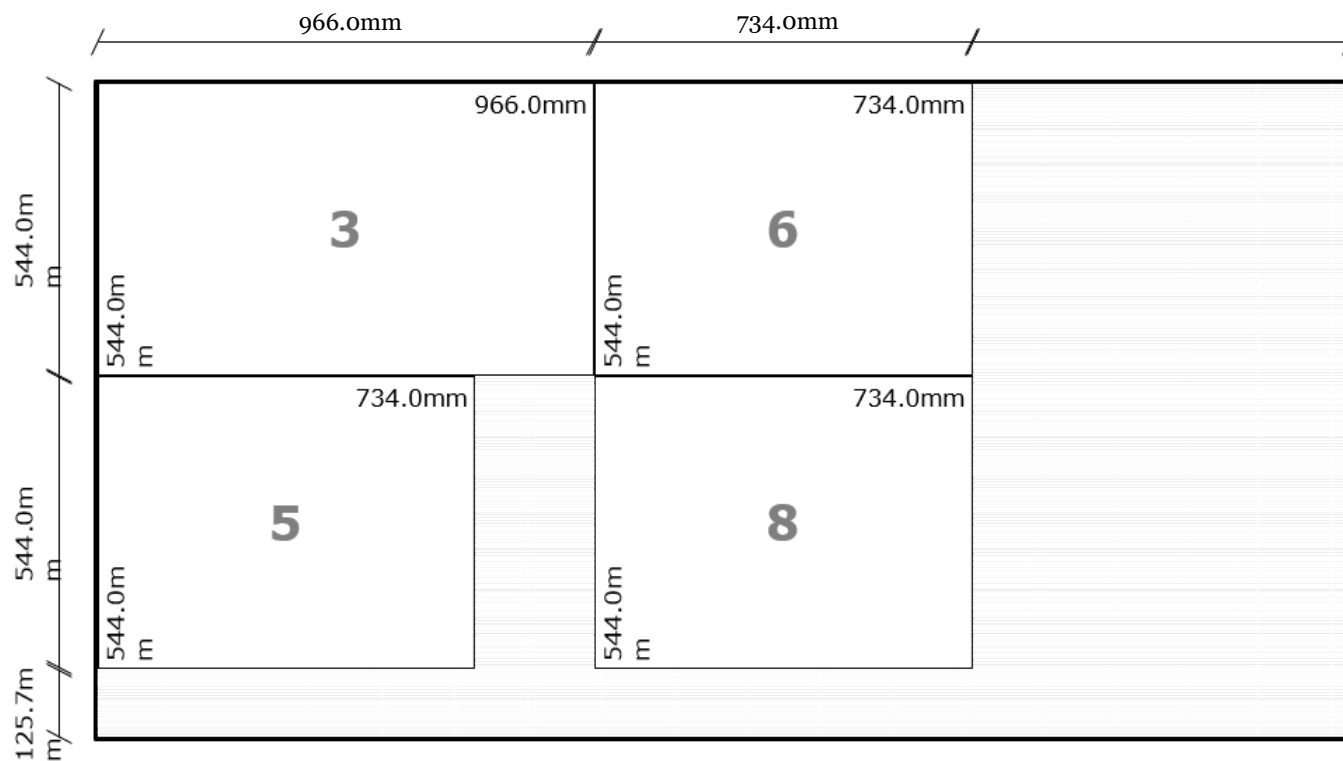
Material	Size	Quantity
3/4" Birch plywood	8'x4'	3
3/4" Hard Maple	1"x8"x96"	3
Locking Casters	4"	6



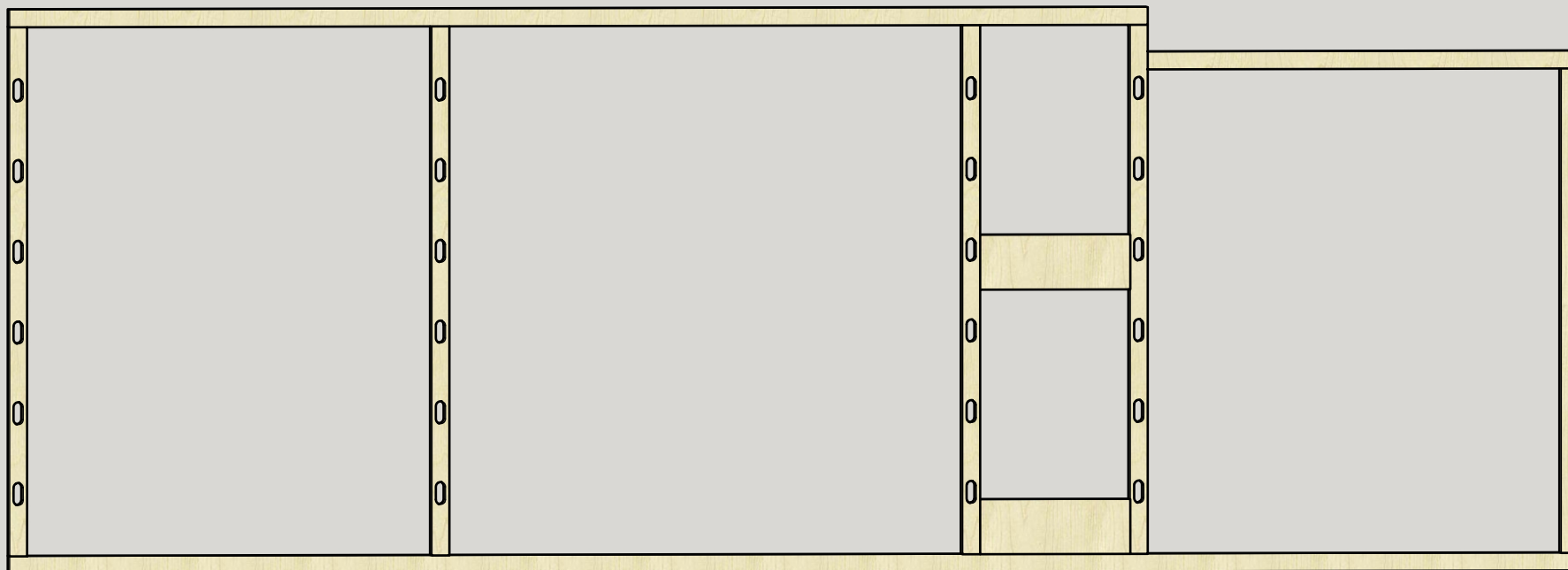
Part #	Description	Copies in Layout	Thickness	Final length	Final width
2	small center panel	1	18.0mm	544.0mm	358.0mm
9	small center panel	1	18.0mm	544.0mm	358.0mm
10	bottom panel	1	18.0mm	1620.0mm	734.0mm



Part #	Description	Copies in Layout	Thickness	Final length	Final width
1	Large top	1	18.0mm	1175.0mm	734.0mm
4	Short end panel	1	18.0mm	734.0mm	498.0mm
7	Small top	1	18.0mm	734.0mm	445.0mm
11	Shelf	1	18.0mm	734.0mm	155.0mm



Part #	Description	Copies in Layout	Thickness	Final length	Final width
3	Tall center divider	1	18.0mm	966.0mm	544.0mm
5	Tall end panel #1	1	18.0mm	734.0mm	544.0mm
6	Tall center panel	1	18.0mm	734.0mm	544.0mm
8	Tall end panel #2	1	18.0mm	734.0mm	544.0mm

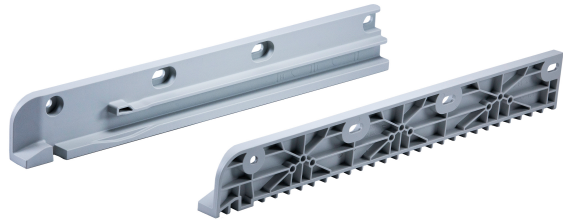


The face frames were cut out of the material below. I chose hard Maple because of its durability. Some other material choices could be Oak, Walnut, or Poplar.

(3) 20mm x 185mm x 2439mm  
(~3/4" x 7 1/4" x 96")

- ☐ Using the parallel guides and the FS 3000 rail, set the stops to 20mm. This will make the material slightly wider than the plywood, so you can trim it down flush later with the OF1010 router.
- ☐ Cut six strips at 20mm. This will give you one extra.
- ☐ Then, set the parallel guides to 56mm and cut one strip for the shelf fronts.
- ☐ These will be cut to length later on in the project once the carcass is in the dry fit stage.

# Drawer LR32 Hole Layout

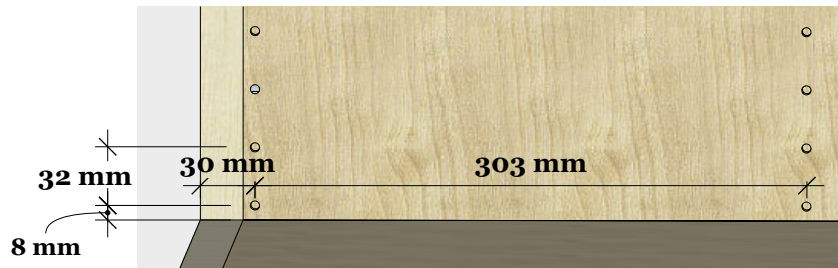


**Systainer³ Rails – 4 Pairs: #204871**

*Screws not included.*



**Sys-AZ -1 drawer: #500692**  
**Sys-AZ -5 drawers: #500767**

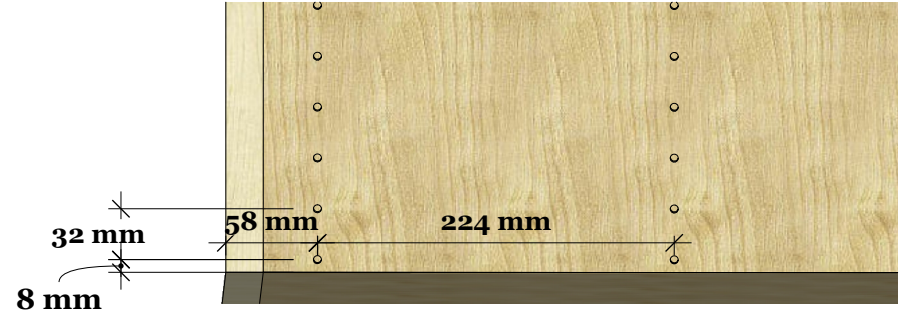


As shown above, the holes for the Systainer³ rails will start 8mm up from the bottom of the panel. This will be dictated by the guide rail index when it is attached to the rail with the 32mm labeling facing up and out (away from the work surface).

The first hole will be **30mm** from the edge of the face frame material. *Keep in mind that the face frame material will not be installed while you are plunging in the 5mm holes. Account for the thickness of that material .*

The 5mm hole for the back of the Systainer³ rail will be 303mm from the center of the first hole.

All the remaining holes will be 32mm from the center of the bottom hole.



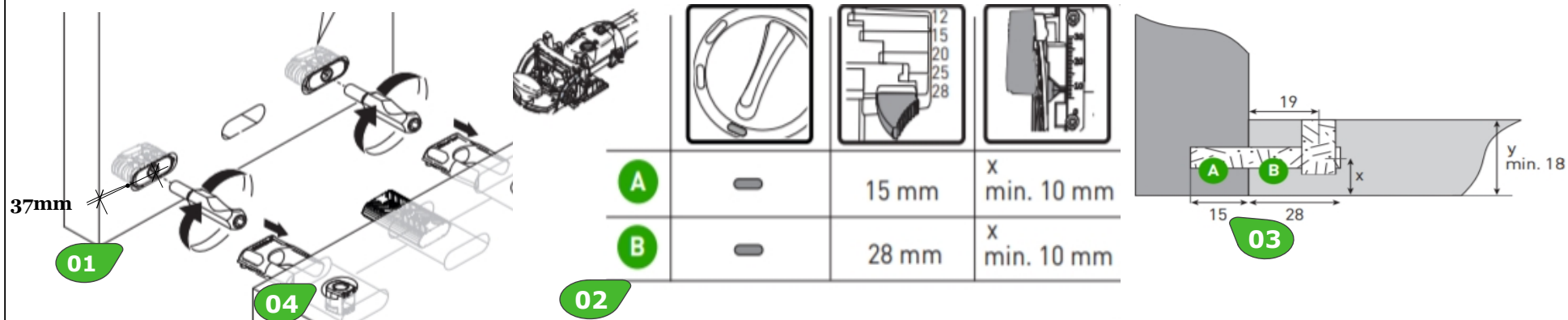
As shown above, the holes for the Sys-AZ drawers will start 8mm up from the bottom of the panel. This will be dictated by the guide rail index when it is attached to the rail with the 32mm labeling facing up and out (away from the work surface).

The first hole will be **58mm** from the edge of the face frame material. *Keep in mind that the face frame material will not be installed while you are plunging in the 5mm holes. Account for the thickness of that material.*

The 5mm hole for the back of the Systainer³ rail will be 224mm from the center of the first hole.

All the remaining holes will be 32mm above the center of the bottom hole.

# Domino Connector and Mortise Layout



The layout process for the Domino connectors is the same process for standard Domino tenons.

Always mark your material for reference! Doing so will help with the mortising process and assembly. **(Page 9)**

I chose to use a combination of the connectors and solid wood Dominos. The connectors will work as clamps applying pressure while the glue on the Dominos sets up.

The mortises can be 150mm-255mm (6"-10") apart. Utilize the flaps on the face of the Domino, which will place the first tenon at 37mm to center from the edge of the material.

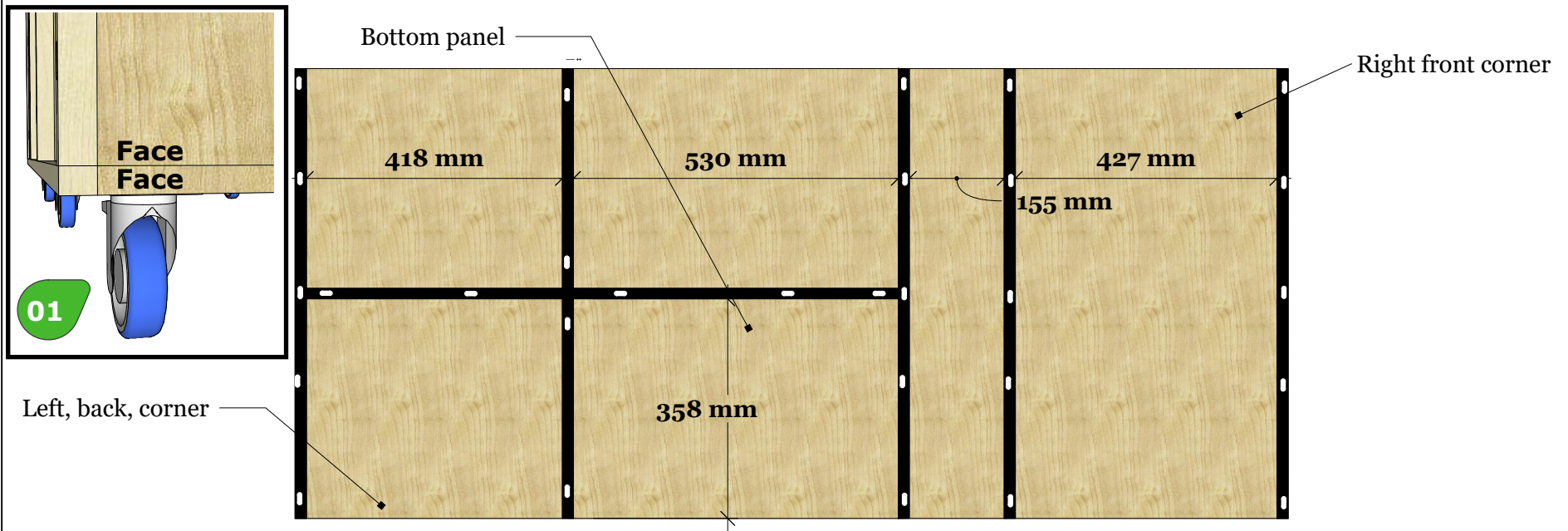
Then use the trim stops set at the desired measurement to cut the other mortises. **(Fig.1)**

The mortise width needs to be set at the tight setting **(Fig.2)** for the connectors to work correctly. The mortises for the Domino tenon can be set to the second mortise width setting for easier assembly.

**Fig. 2&3** show the proper mortise depth setting for the domino connectors.

The anchor bolt hole **(Fig.4)** will be drilled with the D15 bit with depth stop and drill template that are included in the D8 connector set (#203170)

# Domino Connector and Mortise Layout



Labeling is one of the keys to mastering the Domino. The accuracy lies in the machine. Typically errors occur because of human error.

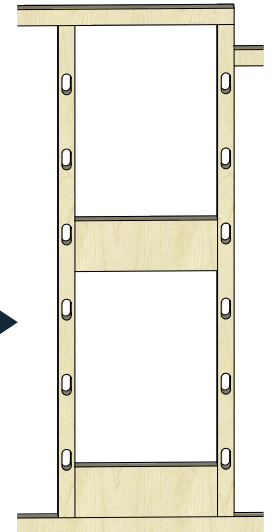
- 1) Mark all surfaces so that you know which direction they will be facing after assembly.
- 2) Layout where the panels will be attached on the bottom and top panel and mark where the mortises will be cut. Also, mark on the end of the panels what the "face" is. **(Fig. 1)** This will be where the fence of the Domino machine will rest while making the mortise joining a horizontal and vertical surface together, ensuring they are flush.
- 3) When the Domino connectors are being used, mark where the anchor bolt holes will be drilled as well.

Once all the mortises and anchor bolt holes are complete you'll be ready for a dry fit.

## Dry Fit and Face Frame

With the mortises complete and the anchor bolt holes drilled out, the next step in the process is the dry fit so that you can cut the face frame material to the final length.

- Utilizing the Domino Connectors as clamps, dry fit all the tenons, panels, and shelves together, verifying the proper fit and that everything remains square.
- Once you have verified that everything is fitting correctly, you can now measure, cut, and install the face frame material.
- Disassemble the panels and cut the vertical and horizontal face frames. **Pro Tip:** *because all the panels are cut the same height, you can now set the flip stop on the UG stand to the correct dimension and cut all the vertical pieces the same length with only one measurement.*
- Using a 5mm cutter on the Domino layout the mortises for the vertical panels every 6"-8".
- On the horizontal pieces, don't forget that the material was ripped slightly larger than the plywood so that you can trim it flush in the following steps. Reference the Domino fence off the INSIDE of the plywood carcass so the face frame will be flush.
- With all the face frame pieces glued up, you can now trim all the pieces flush using the MFK 700 and the edging plate to trim all the pieces flush.
- Now that the face frames are installed, the next step is to cut the mortises to accept the tenons for the material supports. These can be spaced to your liking. I used the 8mm cutter with the plunge depth of the Domino set to 20mm.



## Final Steps

Now you can move on to installing the Sys AZ Drawers or Sys 3 rails.

Because the 5mm holes are already drilled out at the 32mm spacing, the next step is to decide the spacing of the drawers. This will vary depending on the tools that will be stored inside the rolling workstation. I've found the easiest way to install either drawer system is to start at the bottom and work my way up.

It's now time to install the casters. This step may vary depending on the style caster you have purchased. I recommend installing the four outer casters and the two in the middle for extra support.

The last and final step is to place the MFT/s on top. Once it is in place, install scrap plywood or hardwood blocks at each corner under the table to lock it in place.

At this point, the build is complete. You may choose to apply a finish to the workstation, or leave it natural. Either way it will prove to be a valuable part of your shop for years to come.

You can view the entire video series at **[www.Festool.tv](http://www.Festool.tv)**. Look for the build series play list and select the MFT Rolling Work Station.