

FRONT FACE

USING THIS DRAWING

OpenDesk products are designed to be CNC-milled from standard sheet materials such as plywood. This file as provided is mastered for use with the recommended sheet material specification, sheet sizes and thicknesses, and bit sizes provided, however the exact materials being used, tolerances, drill bits, and other local considerations are at the discretion of the end user (maker). If you are working with variations on these you may need to reposition and nest parts within your own sheet frames accordingly, and take account of any changes in tolerance particularly on joints, tabs, and slots prior to cutting.

All OpenDesk drawings are drawn in 'Top' projection, and all vectors are arranged into suitably named layers describing the type and depth of cut required. All such cut depths are assumed to be measured from the top (maximum z-index) surface of the material. For example the layer 'POCKET_14MM_INSIDE' describes a pocketing inside-line cut of depth 14mm from the top surface of the material.*

All OpenDesk drawings are provided in dxf format. After importing into your CNC-machine's CAM software you will need to ensure that all vectors are visible and all polylines are closed where necessary. A pdf version of the drawing is provided with each download for reference.

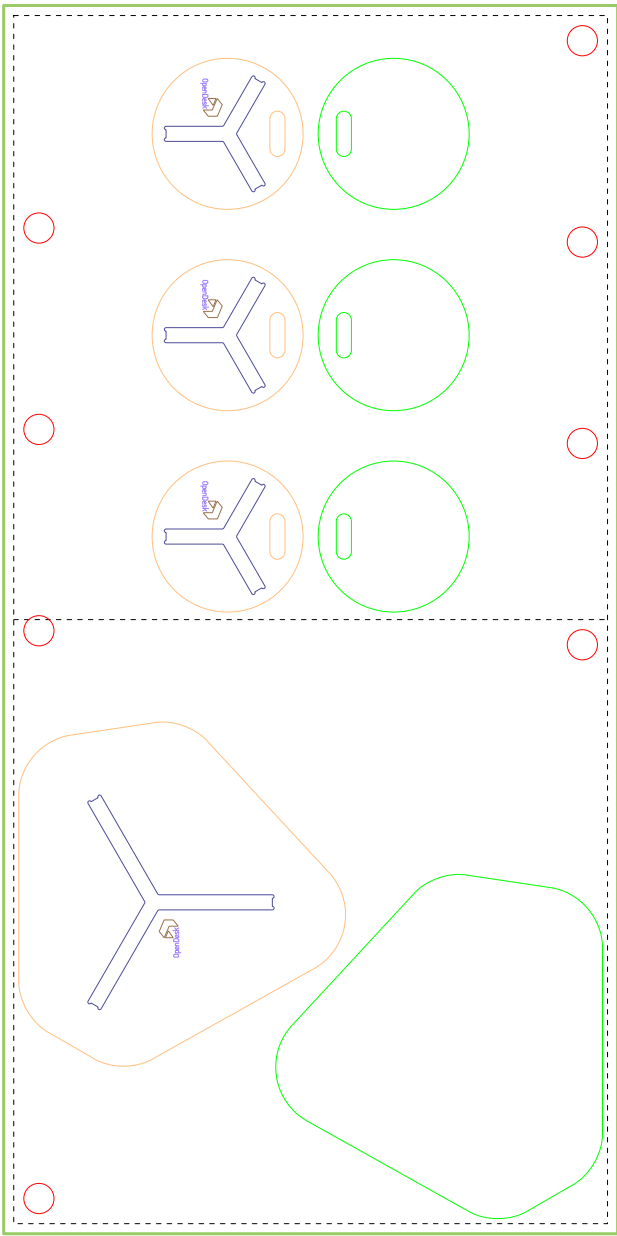
Layers with names beginning '00_NOPRINT' should not be milled. For convenience you can turn these layers off or delete their elements before setting up your CAM software.

Most OpenDesk products require some combination of 'inside cuts', and 'outside cuts', and in some instances 'on-line cuts', 'pocketing', or 'chamfering'. Some OpenDesk products require double-side cutting (ie cutting to both front and reverse faces of a single sheet). As a result each sheet is drawn in 'Front Face', 'Reverse Face' and 'Both Faces' layouts, with corresponding layers and vectors in each for you to choose your preferred setup according to your CNC-software and machine.

A minimum of 15mm tolerance is left between parts on OpenDesk sheets when nested. This should be sufficient for most bit diameters.

* Such a pocketed cut will often be accompanied by a corresponding second line in, for example, 'POCKET_14MM_OUTSIDE', describing the limits of the associated pocket.

MIRROR LINE



REVERSE FACE

FABRICATION GUIDELINES

Before starting to cut your product please take account of the following guidelines. These reflect our personal research and learning and are by no means comprehensive. Please let us know if you have any recommendations for improved standards, and/or cutting methods:

- Every CNC-machine is slightly different, you should follow your machine manufacturer's guidelines for best practice, and consult your supplier for suitable drill bits and other recommendations. In our experience the best quality finish is achieved using a suitable vacuum bed to prevent material slippage, and a compression cutter to prevent splintering of the surface of the material, however these will not always be available and such details are left to the discretion and experience of the fabricator.

- It is strongly recommended that you perform some test cuts using the appropriate material prior to fabrication, to calibrate for suitable tolerance and bit size. A test sheet is included in this file. The test file includes some of the standard OpenDesk joints of different types in three varying degrees of tolerance to account for variations in material thickness (+/- 1%). Please refer to the test sheet guidelines for more information.

- It is highly recommended that you accurately measure the thickness of sheet you are using prior to fabrication, for example using calipers at several points along the sheet. For best results ensure your sheet is adequately flat and free of any warping, knots, or imperfections.

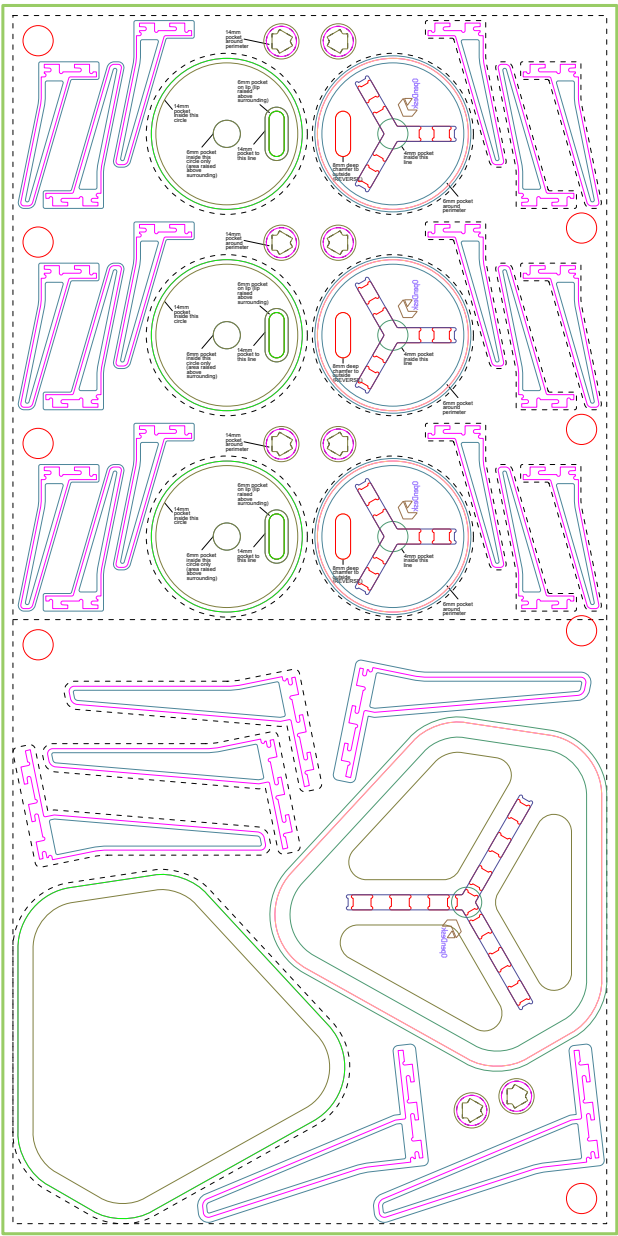
- When performing double-side cuts it is important to locate the flipped sheet exactly, to ensure cuts to both faces align correctly. This can be achieved using a suitable jig or locating pucks/nogins according to your machine bed. OpenDesk drawings requiring double-side cutting include at least two no. indicative locations for locator pucks (shown as 60mm diameter circles at opposite corners of the sheet). For more information consult the guidance on www.opendesk.cc.

- Inside cuts may produce offset pieces that can vibrate out of place and interfere with cutting. It is recommended to secure such pieces to the bed prior to cutting for removal afterwards.

- Where designs include chamfering and pocketing it is strongly advisable to start with these cuts prior to full-depth cut-outs in order to avoid any slippage and misalignment in the material.

- Each OpenDesk part can be cut using single or multi-pass cutting. Slower speeds and multiple passes will tend to produce higher quality cuts and reduce the need for sanding and finishing at the expense of cutting time. This is left to the discretion of the user based on their time and machine.

Please consult the accompanying specification document provided with this file for guidance on how to finish your product.



BOTH FACES

SUMMARY TERMS AND CONDITIONS

This file represents the latest version of an open source product, designed to be CNC-milled from standard sheet materials. Whilst OpenDesk make every effort to provide fully prototyped and tested designs, it is the responsibility of the end user (maker) to check file contents prior to fabrication, and ensure suitable due diligence and reasonable skill and care in fabrication and assembly.

All OpenDesk designs are open source and provided as is. OpenDesk cannot accept any liability for any error or omission in the information contained herein. OpenDesk accepts no design liability, and provides no guarantee of quality or warranty of fitness for purpose on any open product in the OpenDesk library.

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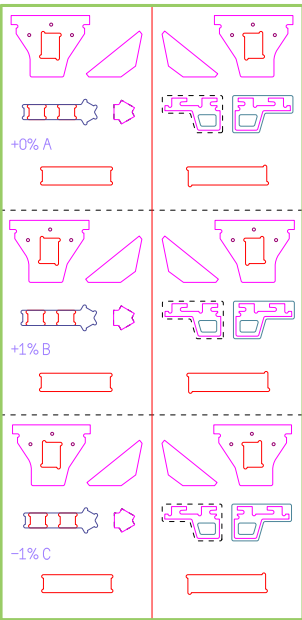
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Welcome to the industrial revolution and thanks for trailblazing!



TEST SHEET

USING THE TEST SHEET

This test sheet includes three sets of parts with a +/- 1% variation on tolerance. The middle set is the default tolerance based on a uniform standard sheet size. The other two sets represent a 1% variation in thickness and corresponding slot dimensions.

To perform your test:

1. Cut the test sheet parts and finish them as you intend to finish your completed product.

2. Slot together the parts for each set and assess the fit (refer to the website for more information).

3. If the best fit is Set-A you are ready to cut your product! Alternatively:
- If Set-B results in a best fit scale the entire contents of this file by 1.01%.
- If Set-C results in a best fit scale the entire contents of this file by 0.99%.

PLEASE NOTE: performing any scaling of this drawing will have a resulting impact on the overall dimensions of your finished product, although this variation should be negligible for most practical purposes. If cutting multiple products we recommend maintaining a consistent scale factor across all cuts.



MODEL:EDIE-SET

Version: 0.1.1 Released: 2013-07-18
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DESIGNER(s):
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DESIGNED FOR CNC-MILLING
Recommended drill bit (unless otherwise noted) 6mm - 1/4 inch
Recommended sheet size (unless otherwise noted) 220mm x 2440mm
Recommended sheet thickness (unless otherwise noted) 6mm

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Sheet: 001 Date: 18/07/13