Analog Test Print Block

A Model Test Print Block has been developed to help customers printing their own models determine the proper horizontal offset they need to achieve snug analog fit. Vulcan libraries have a default 0.0 offset. Offsets are designed at -0.1mm. -0.05mm, 0.0mm, +0.05mm and +0.1mm.

1. Print the Test Block using your normal model printing process.
2. Use a BioHorizons 3.5 analog (PYIA) and try seating the analog in the various sites.
3. Determine which offset gives the preferred fit.
4. Adjust your settings in your CAD software as needed.

NOTE: Analog holes are designed at 0 degrees and 15 degrees to make sure the chosen offset works even when the analog retention geometry is printed at an angle.

Vulcan recommends printing models at a 0.050mm layer thickness.

How to adjust horizontal offset for your models

exocad

- Horizontal offset is adjusted within ModelBuilder during the “Plateless Model Design” phase. Navigate to the “Settings” tab of that step and scroll down to the bottom.

3Shape

- Open your Control Panel > Click on Digital model design
- Vulcan Printing (REV A) is part of Vulcan libraries and has a 0.0 analog to model spacing.
- You can create a new setting (click Add), then set your designed analog to model spacing value. Make sure the Material is set. In this example, it is set to Vulcan Printing (TEST).
- During case set up, you will select this new setting for your model.

Note: 3Shape does not allow for a negative offset. If the 0.0 is too loose, please try reducing your layer thickness.

Name	og Friction bar Width (mm)	Analog Friction bar overlap (mm)	Number of Analog Friction Bars	Analog to Model Spacing (mm)	Analog hole level adjustment (mm)	Model and Manufacturing: Protect Analog (soft tissue)
Vulcan Printing (REV A)	0.000	0.000	0	0.000	0.000	True
Digital Model	0.800	0.020	8	0.100	0.000	False
.000 Spacing	0.000	0.000	0	0.000	0.000	True
.010 Spacing	0.000	0.000	0	0.010	0.000	True
.015 Spacing	0.000	0.000	0	0.015	0.000	True
.020 Spacing	0.000	0.000	0	0.020	0.000	True
.025 Spacing	0.000	0.000	0	0.025	0.000	True

Name	ID	General: Description	Material
Vulcan Printing (REV A)	50010_VulcanPrinting_A	Vulcan Printing (REV A)	Vulcan Printing (REV A)
Digital Model	Configuration_11_DigitalModel		Not specified
.000 Spacing	50010_ModelManufacturing14	.000 Spacing	Vulcan Printing (TEST)
.010 Spacing	50010_ModelManufacturing9	.010 Spacing	Vulcan Printing (TEST)
.015 Spacing	50010_ModelManufacturing10	.015 Spacing	Vulcan Printing (TEST)
.020 Spacing	50010_ModelManufacturing11	.020 Spacing	Vulcan Printing (TEST)
.025 Spacing	50010_ModelManufacturing13	.025 Spacing	Vulcan Printing (TEST)