

Custom Plate Measurements for the U-2D Micro-Sample Management System in the Waters Acquity Software - How to

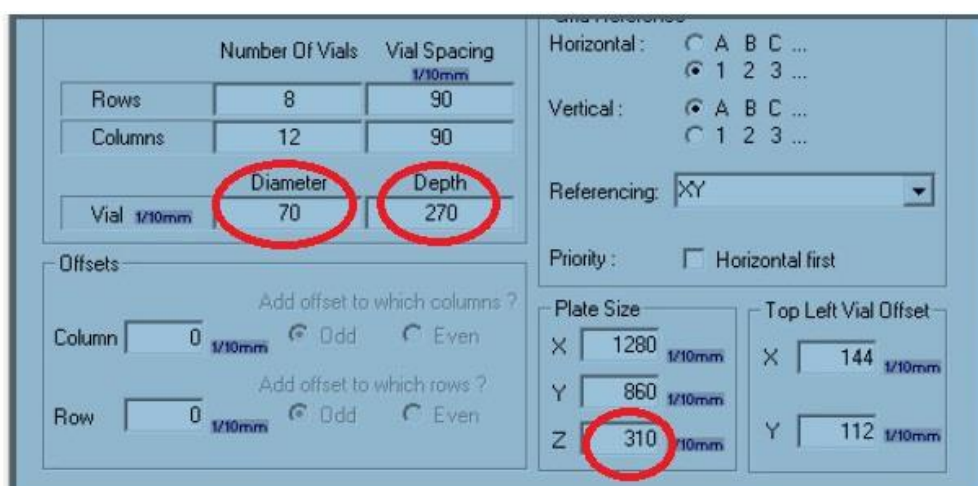
Date: 22-DECEMBER-2016 Last Updated: 1-FEBRUARY-2026

It is always best to consult the user manual for any changes or options before making adjustments to you instruments. Below some notes that you might find helpful

The Waters Acquity™ UHPLC chromatography software is programmable for X,Y,Z sampling. The pre-existing configurations are pre-programmed and stored for customers to get up and running fast. The system expects to hit resistance within some tolerance of the configured heights, or it will error. This is a 'fail-safe' to prevent damage to the autosampler if the user had the wrong configuration plate or vial loaded into the sample method.

If you want to set a custom plate, an example would be taking a 1ml ANSI plate that has a 7mm ID well, a 27mm depth, and a height of 31mm. If you bring up a plate, modify the dimensions and save it as another name, you should be all set. See below.

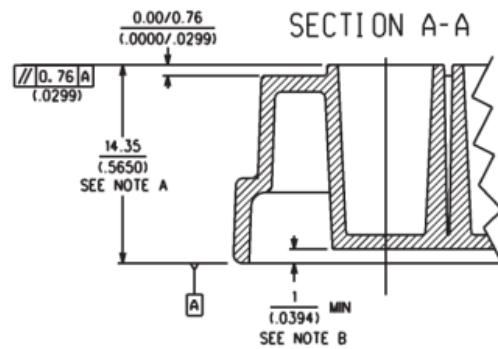
The U-2D™ plate is ANSI/SLAS (Society For Laboratory Automation and Screening) compliant and conforms to SBS standards and follows the ANSI/SLAS Microplate Standards and when the Rack and Base are mated is virtually indistinguishable from existing glass insert 96 Formatted well plates (and similar).



The screenshot displays the Waters Acquity software interface for configuring plate measurements. The interface is divided into several sections:

- Number Of Vials / Vial Spacing:** A table with rows for Rows (8), Columns (12), and Vial 1/10mm (70). The Vial Spacing is set to 90.
- Offsets:** Fields for Column (0) and Row (0) offsets, with options for Odd and Even.
- Horizontal / Vertical:** Radio buttons for selecting the orientation (Horizontal or Vertical).
- Referencing:** A dropdown menu set to XY.
- Priority:** A checkbox for Horizontal first.
- Plate Size:** Fields for X (1280), Y (860), and Z (310) dimensions.
- Top Left Vial Offset:** Fields for X (144) and Y (112) dimensions.

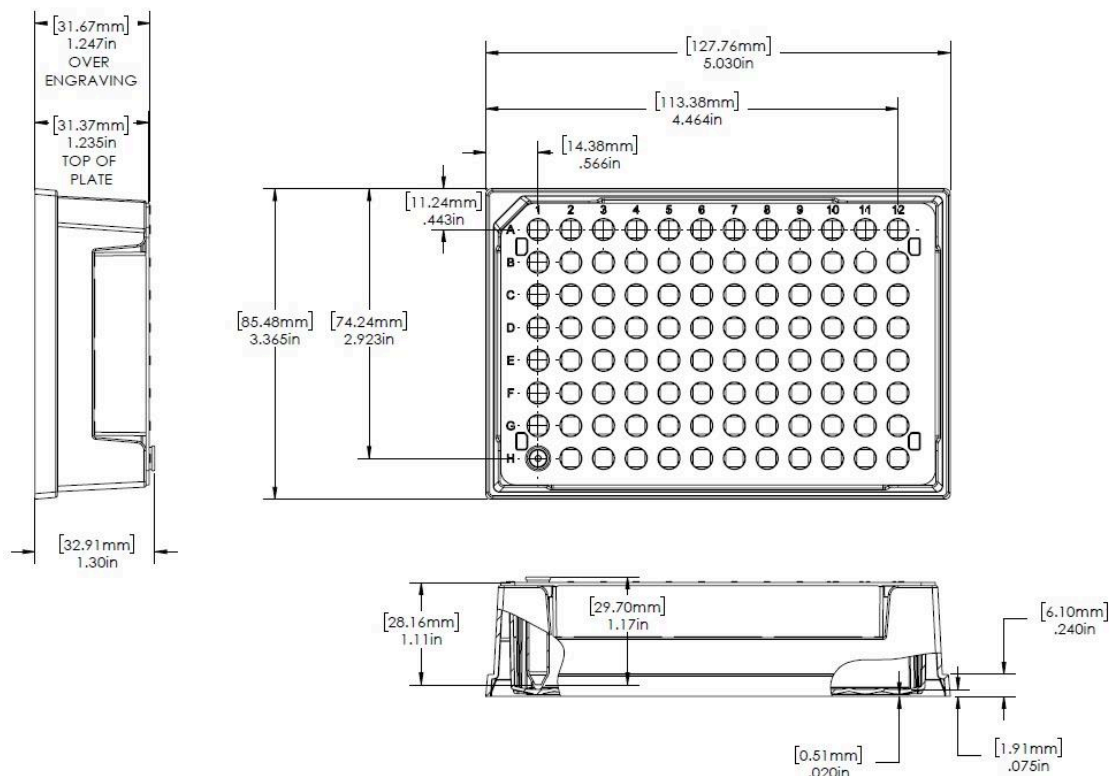
Red circles highlight the Diameter (70), Depth (270), and Z (310) fields, indicating the custom plate measurements.



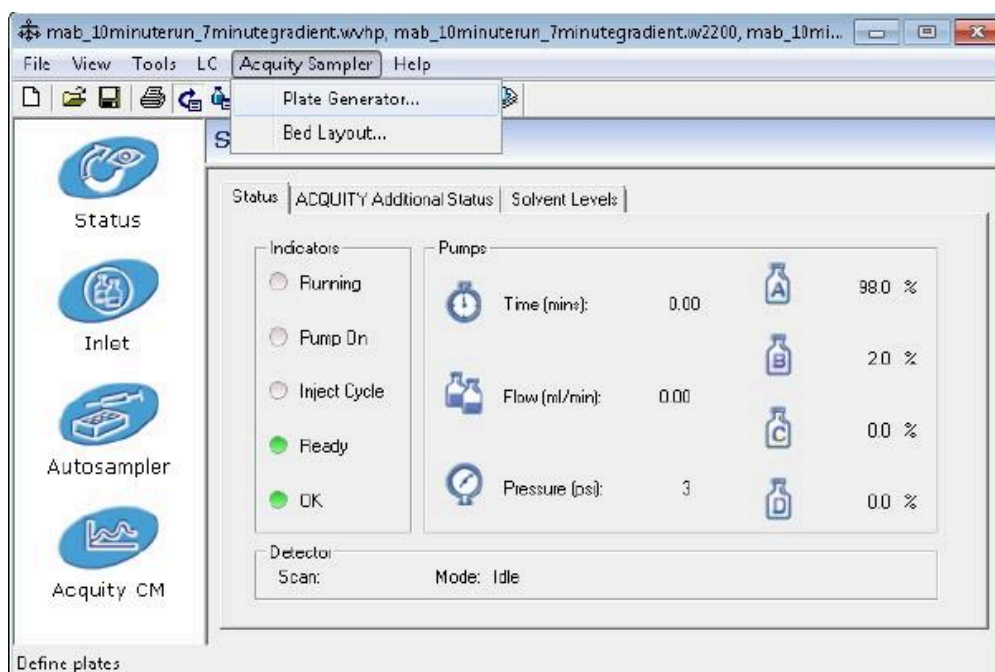
Mechanical Drawings Defining Height Of A Typical Microplate

The Society For Laboratory Automation And Screening (SLAS) is not a standardizing organization; they are a society that provides a working group the ability and platform to standardize along with the American National Standards Institute (ANSI).

Dimensions of the U-2D plates:

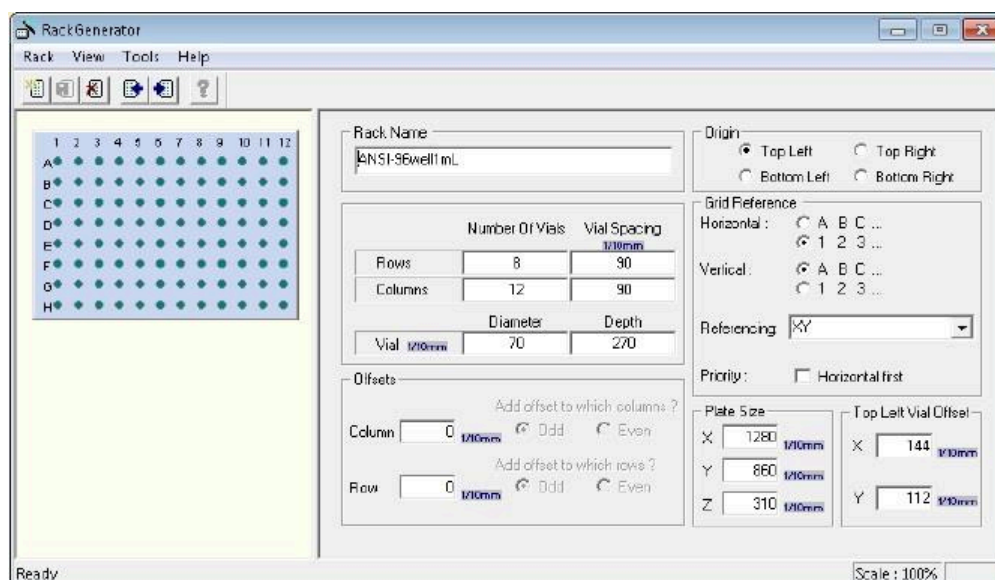


Open inlet method:



Modify X, Y, Z:

1. Using the blue arrows at the top, click through the different plates that are already programmed.
2. Click Rack > New Rack to save new plate types.
3. Modify any of the dimensions
4. Click Rack > Save Current Rack



Click here for more information about Microplate Footprint Standards

https://www.slas.org/SLAS/assets/File/ANSI_SLAS_1-2004_FootprintDimensions.pdf

Click here for more information about Microplate Height Standards

https://www.slas.org/SLAS/assets/File/ANSI_SLAS_2-2004_HeightDimensions.pdf

Click here for more information about Microplate Bottom Outside Flange Standards

https://www.slas.org/SLAS/assets/File/ANSI_SLAS_3-2004_BottomOutsideFlangeDimensions.pdf

Click here for more information about Microplate Well Positions Standards

https://www.slas.org/SLAS/assets/File/ANSI_SLAS_4-2004_WellPositions.pdf

Click here for more information about Microplate Well Bottom Elevation Standards

https://www.slas.org/SLAS/assets/File/Press%20Releases/ASNI_SLAS_6-WellBottomElevation%20NEW.pdf

Attachments Drawing of specifications 350ul 96 well dimensions pdf [Download File](#)

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