

## How to define custom plate measurements for the U-2D Micro-Sample Management System in the Waters Acquity console software - How to

**It is always best to consult the user manual for any changes or options before making adjustments to you instruments.**

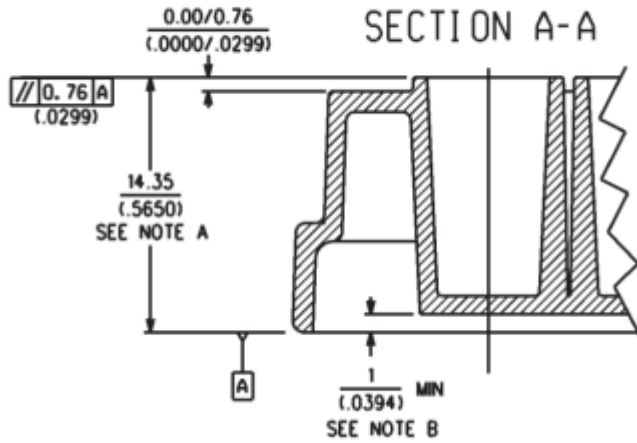
The Waters Acquity™ UHPLC chromatography software is programmable for X,Y,Z sampling. The pre-existing configurations are pre-programmed and stored for customers to get up and running fast. The system expects to hit resistance within some tolerance of the configured heights, or it will error. This is 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 configuration window for a custom plate in the Waters Acquity software. The interface is divided into several sections:

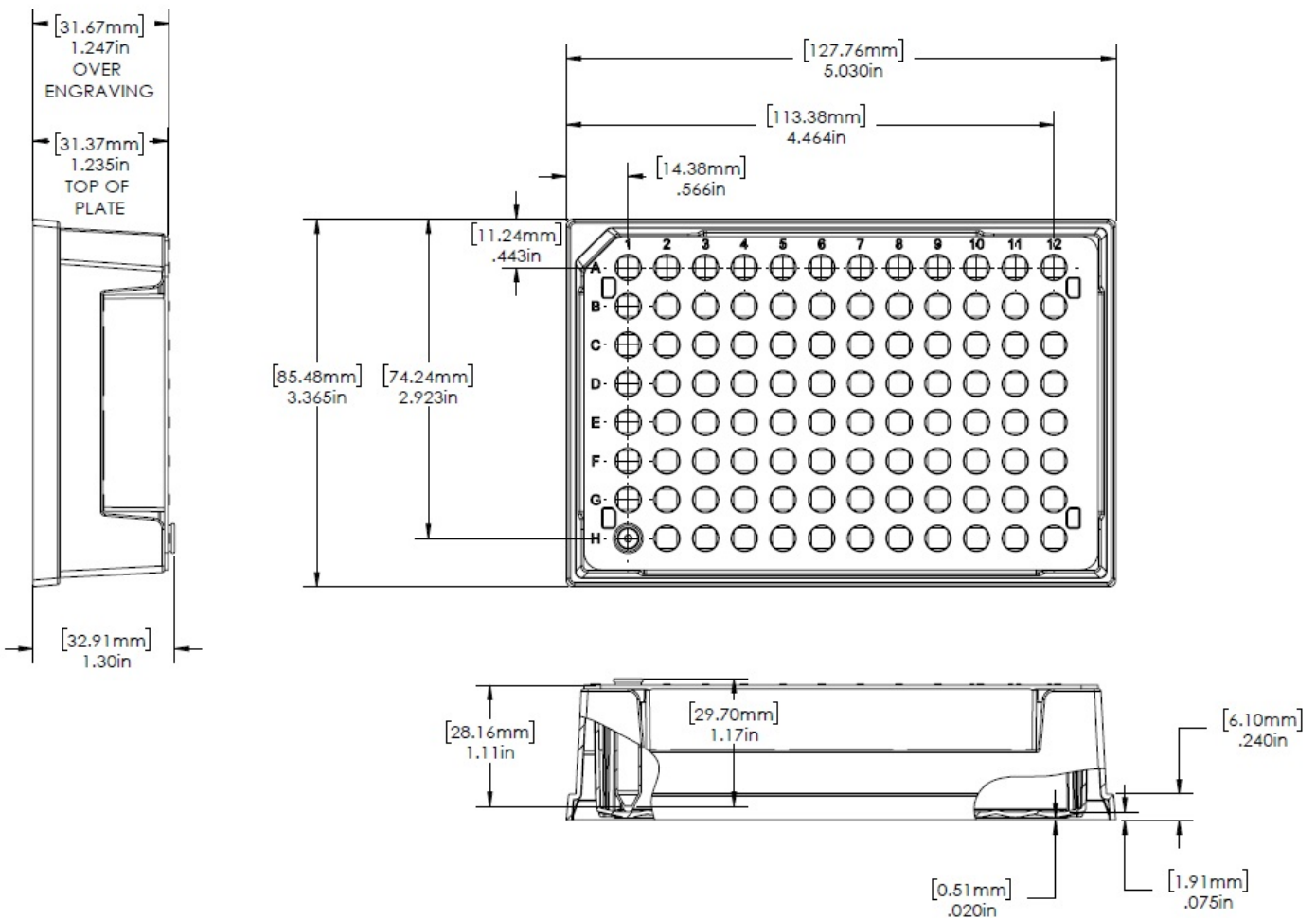
- Number Of Vials / Vial Spacing:** A table with 2 columns and 2 rows. The first row shows 'Rows' with a value of 8 and 'Vial Spacing' with a value of 90. The second row shows 'Columns' with a value of 12 and 'Vial Spacing' with a value of 90.
- Vial Dimensions:** A section with two input fields: 'Diameter' (value: 70) and 'Depth' (value: 270). Both fields are circled in red.
- Offsets:** A section with two rows. The first row is for 'Column' with a value of 0 and radio buttons for 'Odd' (selected) and 'Even'. The second row is for 'Row' with a value of 0 and radio buttons for 'Odd' (selected) and 'Even'.
- Horizontal / Vertical / Referencing:** Radio buttons for 'Horizontal' (A B C ...) and 'Vertical' (A B C ...). A dropdown menu for 'Referencing' is set to 'XY'.
- Priority:** A checkbox for 'Horizontal first' is unchecked.
- Plate Size:** A section with three input fields: 'X' (value: 1280), 'Y' (value: 860), and 'Z' (value: 310). The 'Z' field is circled in red.
- Top Left Vial Offset:** A section with two input fields: 'X' (value: 144) and 'Y' (value: 112).



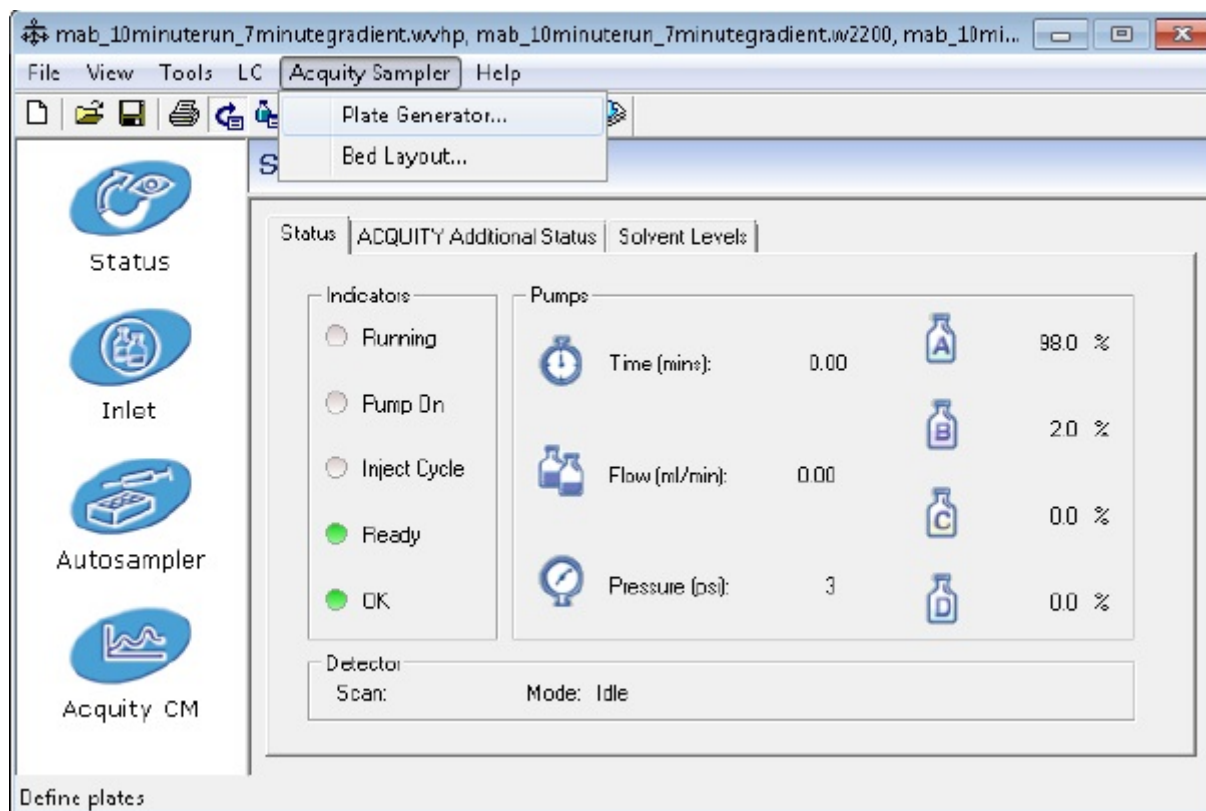
## Mechanical Drawings Defining Height Of A Typical Microplate

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:

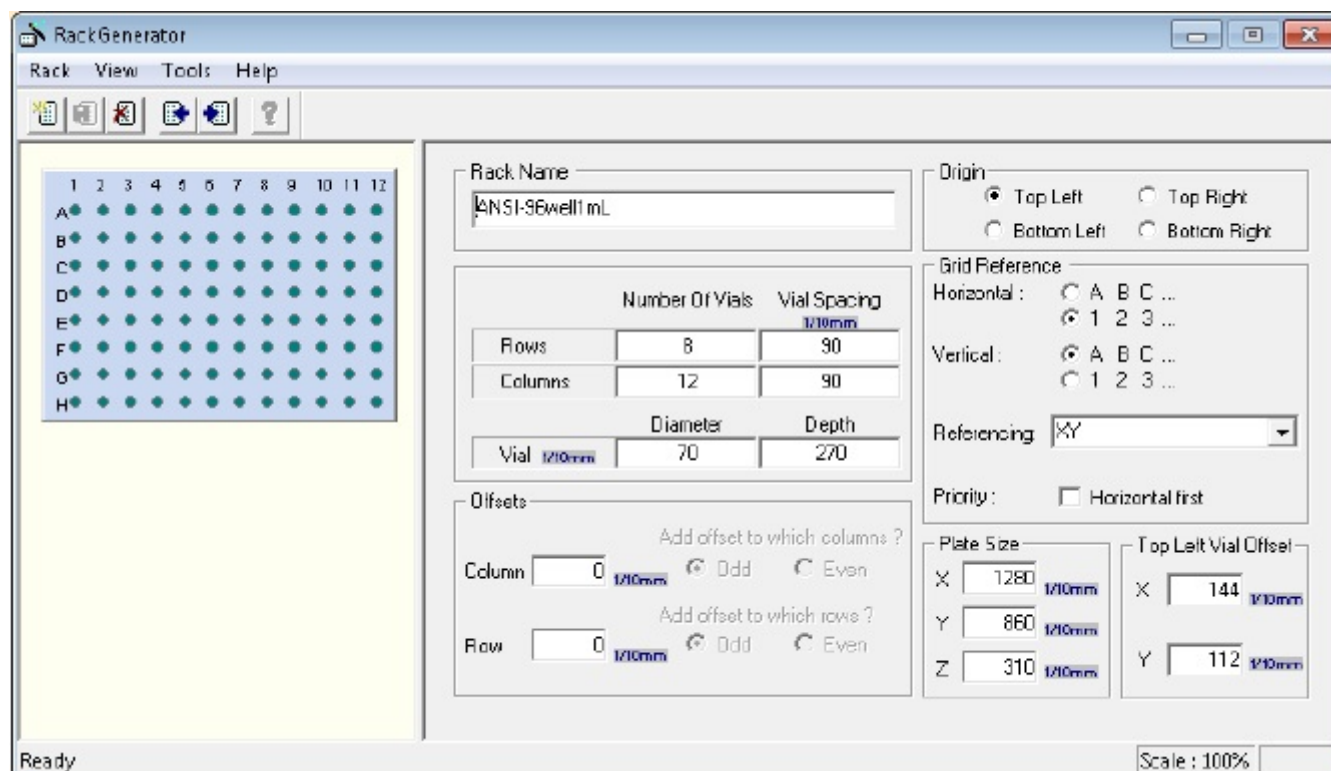


Open inlet method:



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](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](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](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](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](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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**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

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