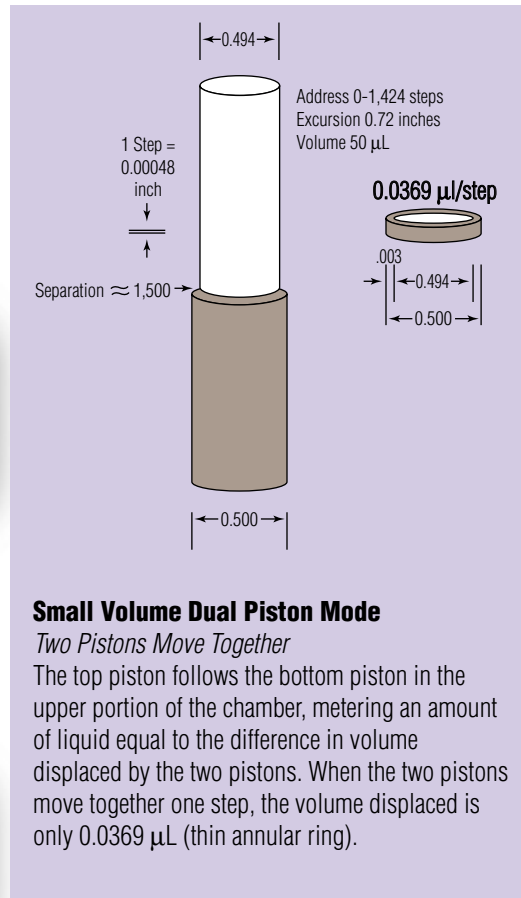


DRD's patented **D**ifferential **R**esolution **D**isplacement gives <1% CV from 2.8 mL down to 1 µL in this model, permitting precise 3000:1 dilutions and vigorous rinses.



**ACTUAL SIZE**

## CONCEPT



1 Step = 0.00048 inch

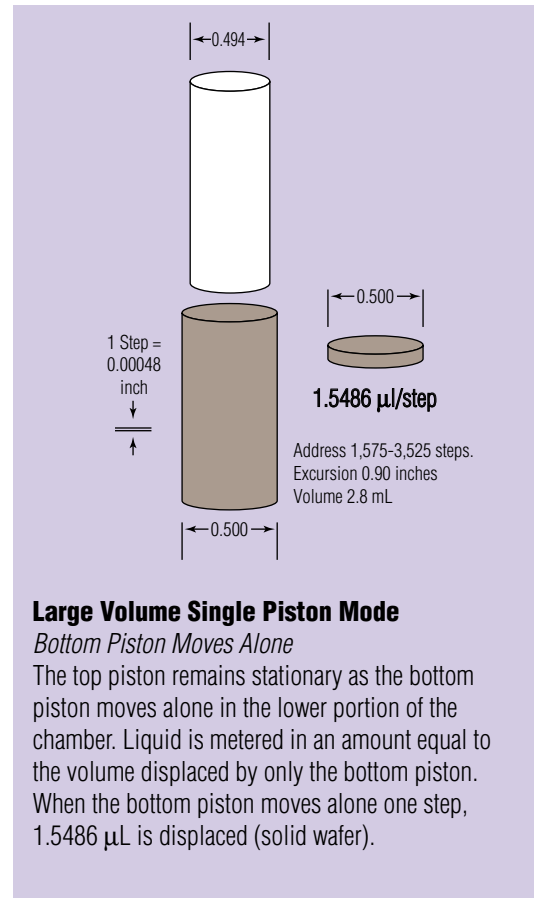
Separation ≈ 1,500

Address 0-1,424 steps  
Excursion 0.72 inches  
Volume 50 µL

0.0369 µL/step

Small Volume Dual Piston Mode  
*Two Pistons Move Together*

The top piston follows the bottom piston in the upper portion of the chamber, metering an amount of liquid equal to the difference in volume displaced by the two pistons. When the two pistons move together one step, the volume displaced is only 0.0369 µL (thin annular ring).



1 Step = 0.00048 inch

Address 1,575-3,525 steps.  
Excursion 0.90 inches  
Volume 2.8 mL

1.5486 µL/step

Large Volume Single Piston Mode  
*Bottom Piston Moves Alone*

The top piston remains stationary as the bottom piston moves alone in the lower portion of the chamber. Liquid is metered in an amount equal to the volume displaced by only the bottom piston. When the bottom piston moves alone one step, 1.5486 µL is displaced (solid wafer).

## PRECISION CV %

DRD CV Control Dip: Upon entering the Dual Piston Mode, the SD drops from 0.2 µL to 0.01 µL, enabling the CV to drop and maintain <1% CV all the way down to 1 µL.

