

# Accuracy and Precision for the USA Scientific Repeating Pipet

## Technical Data

Tip Size	Dispensing Volume			Systematic Error (Inaccuracy)			Random Error (Imprecision; CV)		
	Minimum		Maximum	Minimum		Maximum	Minimum		Maximum
0.5 ml	10 $\mu$ l	30 $\mu$ l	50 $\mu$ l	$\pm$ 2.0 %	$\pm$ 1.0 %	$\pm$ 1.0 %	$\pm$ 2.0 %	$\pm$ 1.0 %	$\pm$ 0.8 %
1.25 ml	25 $\mu$ l	75 $\mu$ l	125 $\mu$ l	$\pm$ 0.9 %	$\pm$ 0.9 %	$\pm$ 0.9 %	$\pm$ 0.9 %	$\pm$ 0.7 %	$\pm$ 0.6 %
2.5 ml	50 $\mu$ l	150 $\mu$ l	250 $\mu$ l	$\pm$ 0.7 %	$\pm$ 0.7 %	$\pm$ 0.7 %	$\pm$ 0.9 %	$\pm$ 0.7 %	$\pm$ 0.6 %
5.0 ml	100 $\mu$ l	300 $\mu$ l	500 $\mu$ l	$\pm$ 0.6 %	$\pm$ 0.6 %	$\pm$ 0.6 %	$\pm$ 0.6 %	$\pm$ 0.5 %	$\pm$ 0.3 %
12.5 ml	250 $\mu$ l	750 $\mu$ l	1250 $\mu$ l	$\pm$ 0.5 %	$\pm$ 0.5 %	$\pm$ 0.5 %	$\pm$ 0.6 %	$\pm$ 0.5 %	$\pm$ 0.3 %
25 ml	500 $\mu$ l	1500 $\mu$ l	2500 $\mu$ l	$\pm$ 0.4 %	$\pm$ 0.4 %	$\pm$ 0.4 %	$\pm$ 0.6 %	$\pm$ 0.4 %	$\pm$ 0.25 %
50 ml	1000 $\mu$ l	3000 $\mu$ l	5000 $\mu$ l	$\pm$ 0.3 %	$\pm$ 0.3 %	$\pm$ 0.3 %	$\pm$ 0.5 %	$\pm$ 0.4 %	$\pm$ 0.25 %

### Test conditions in accordance with EN ISO 8655

Liquid: Water bi-distilled, degassed  
 Test Temperature: 20–25°C,  $\pm$ 0.5 % constant

(Data for 0.5 ml, 1.25 ml and 2.5 ml tips are determined with a standard 200  $\mu$ l pipet tip attached)

Operating Temperature: +4 °C +40 °C  
 Measurement: Performed with USA Scientific repeating pipet tips in accordance with EN ISO 8655

Technical specifications are subject to change without notice.