

Sub microliter pipetting with Te-PS™ tips

The Freedom EVO® workstation configured with Te-PS™ tips is an ideal platform for life science applications such as protein crystallography, where accurate pipetting in the sub microliter range is essential.

The laser-guided Te-PS positioning system and specially-designed Te-PS tips have been developed for robust and accurate use of high density labware formats, such as 1,536-well microplates or high density protein crystallography plates.

Tests showed that the Freedom EVO workstation with Te-PS tips is capable of contact pipetting in the sub microliter range with very good precision and accuracy across the volume range of 100 nl to 1.0 µl, even for highly viscous liquids. The Te-PS tips achieved better precision and accuracy compared to the specifications of a standard manual pipette in this volume range, and achieved excellent consistency through each of the eight Te-PS tips. Dry contact pipetting performance was also shown to be of similar accuracy and precision to wet contact pipetting.

Research application, not for clinical diagnostic use.

For more information, visit www.tecan.com/proteincrystallography

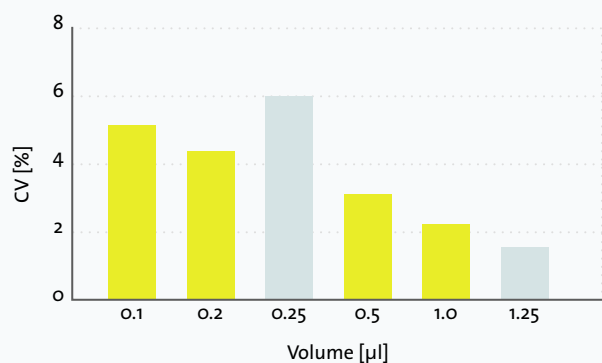
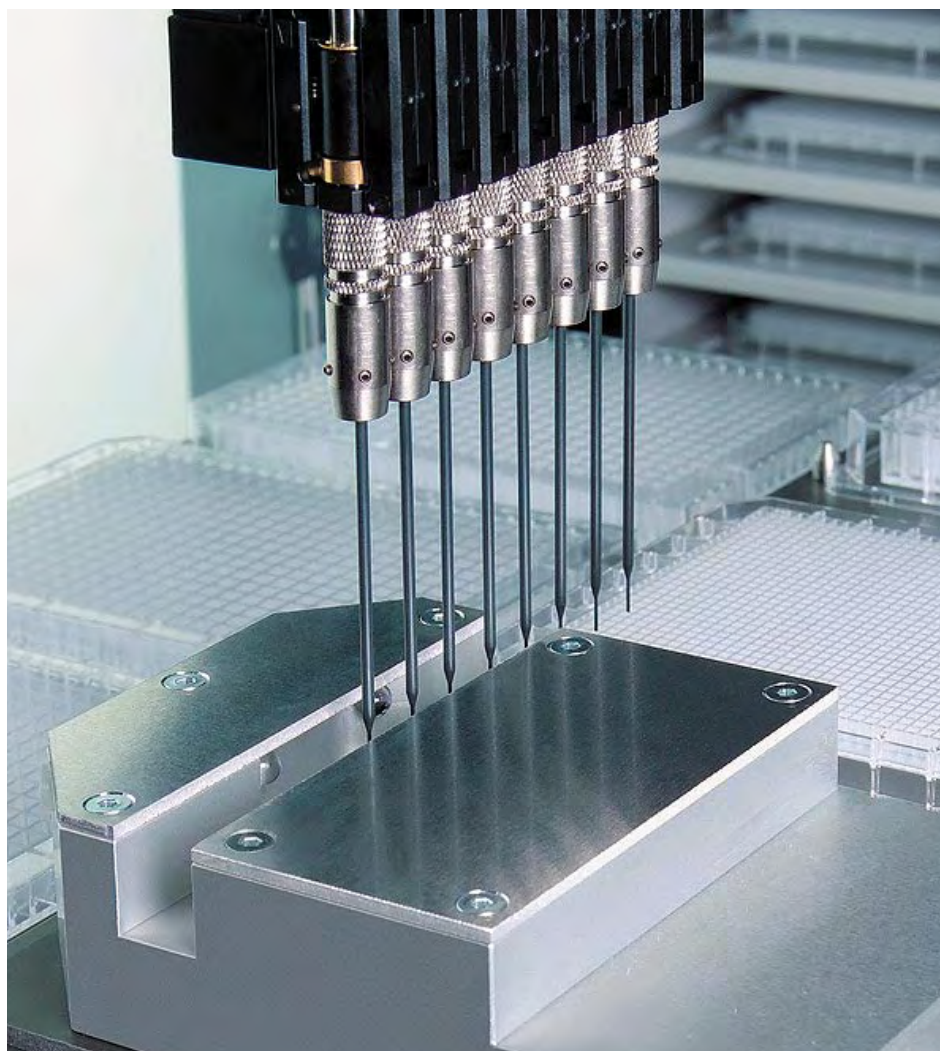


Fig 1 Precision of pipetting water with Freedom EVO workstation (green bars) and a standard manual pipette (blue bars). Data for the Freedom EVO workstation was obtained from gravimetric experiments using the Freedom EVO workstation with Te-PS tips. Data represent 480 data points derived from 10 measurements with eight tips in each of six separate experiments. Data for manual pipetting are specified performance parameters quoted for an adjustable manual pipette.

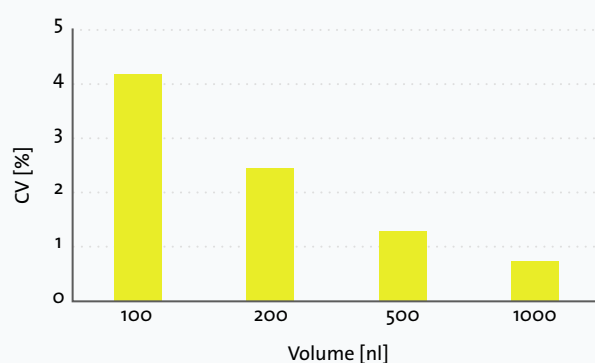


Fig 2 Precision of pipetting 40% PEG 10,000 using the Freedom EVO workstation and Te-PS tips. The data represent 480 datapoints derived from 10 measurements with eight tips in each of six separate experiments.