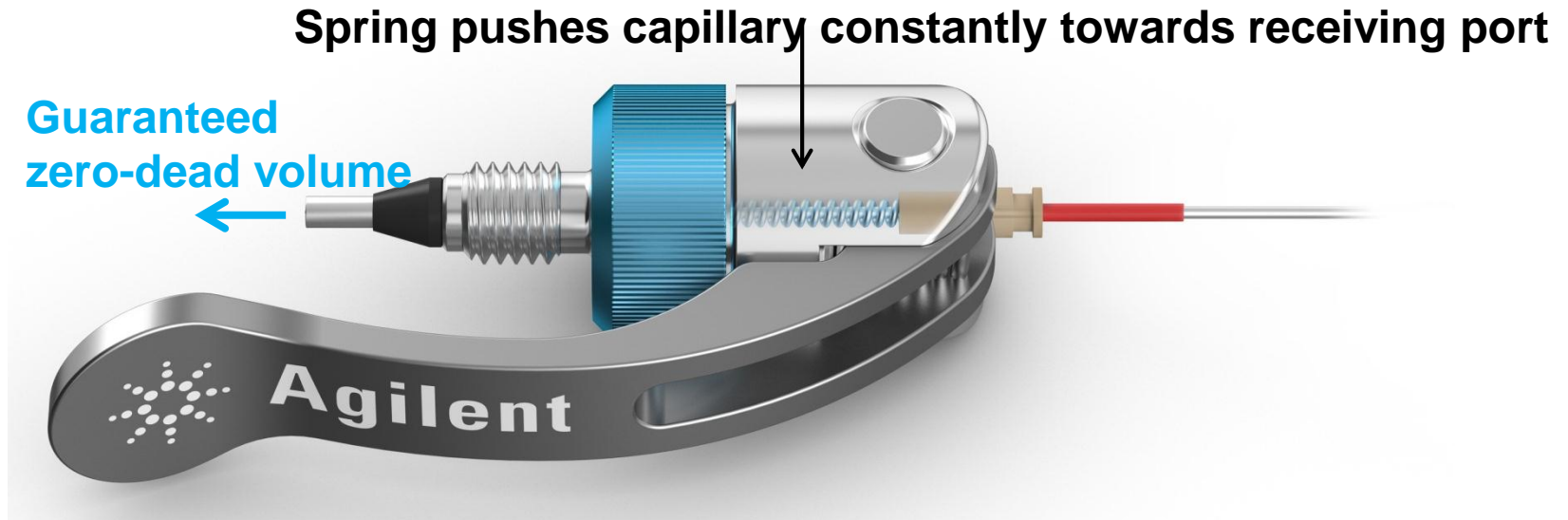


Optimizing HPLC and UHPLC Performance with Agilent A-line Quick Connect Fittings

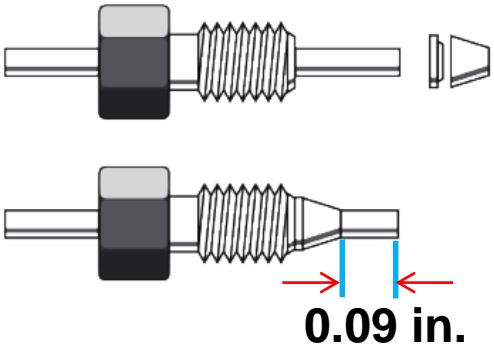
Agilent A-line Quick Connect Fitting: Unique spring-loaded design



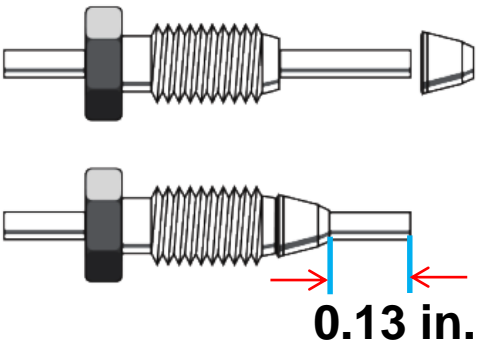
- Spring constantly pushes the tubing against the receiving port, delivering a reproducible connection with **no dead volume for consistent chromatographic performance**
- Spring assembly, including the lever, applies a constant force that presses the ferrule onto the tubing, so that **tubing slippage is avoided**
- **Compatible with all types of LC columns**
- **Little resistance** needed to tighten the fitting

Common HPLC connectors from different manufacturers

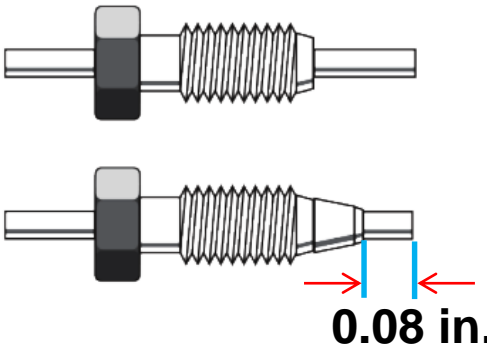
Swagelok



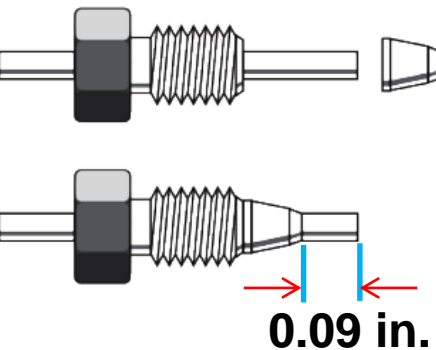
Waters



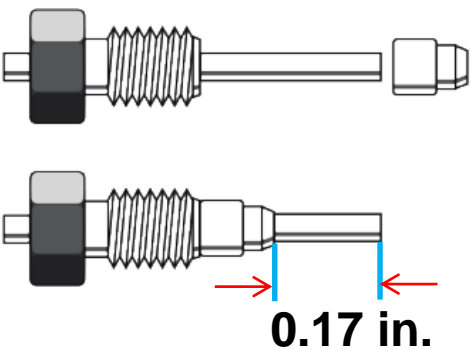
Valco



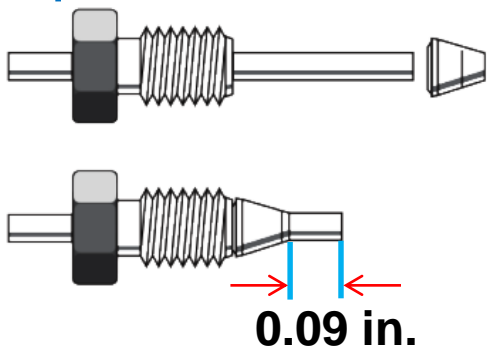
Parker



Rheodyne

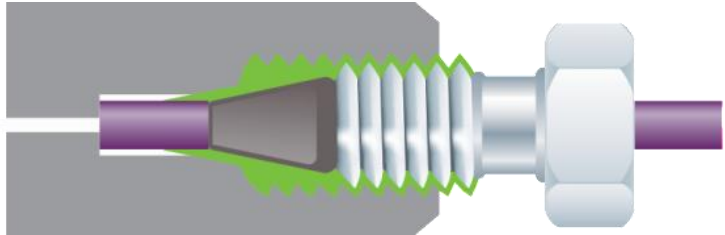


Upchurch

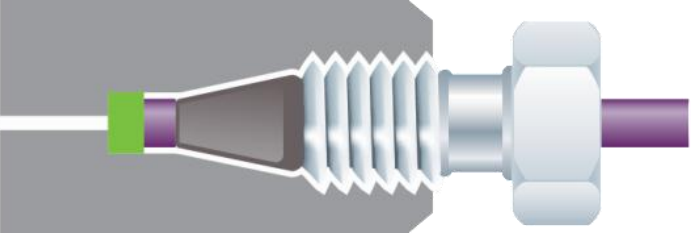


Comparison of correct and incorrect fitting connections

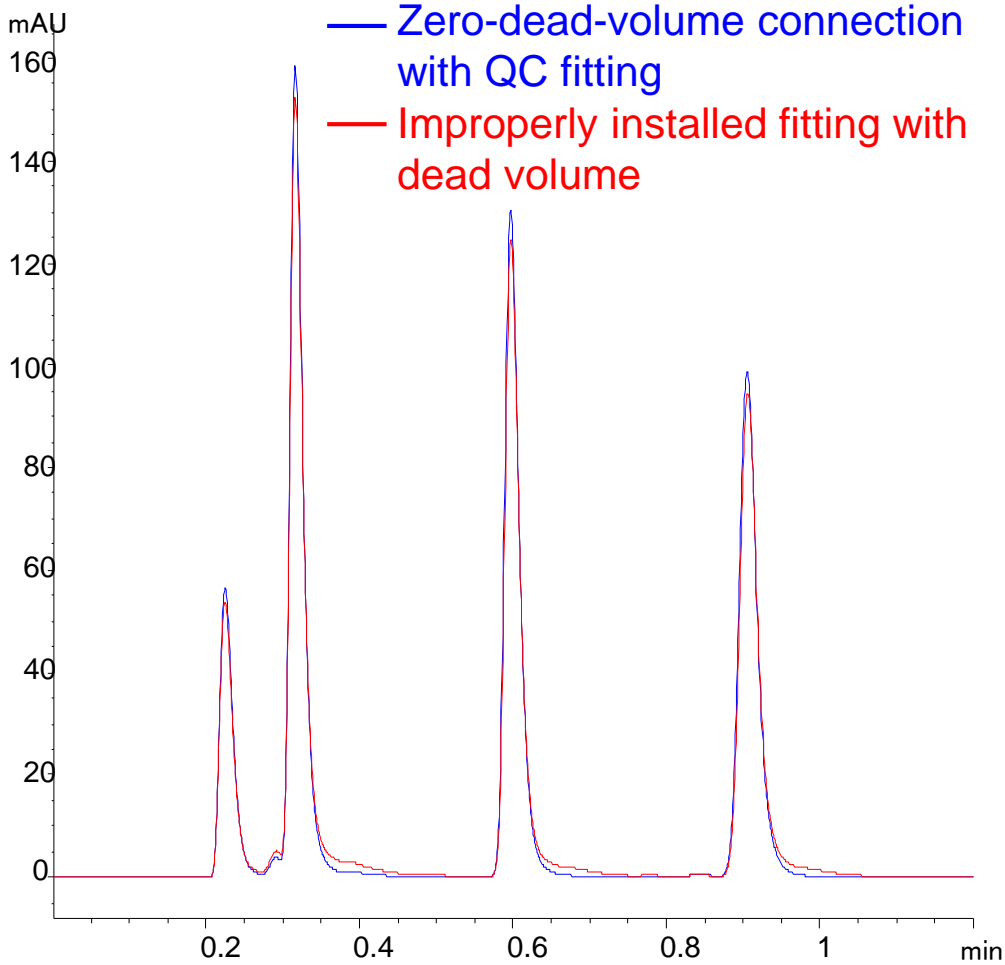
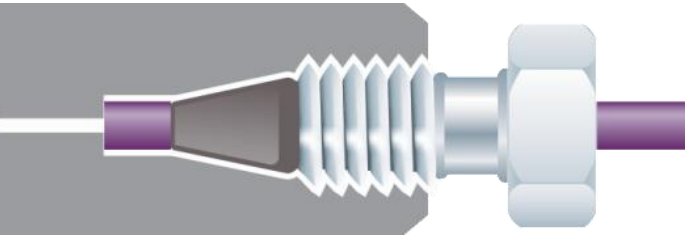
Stem length too long → leak



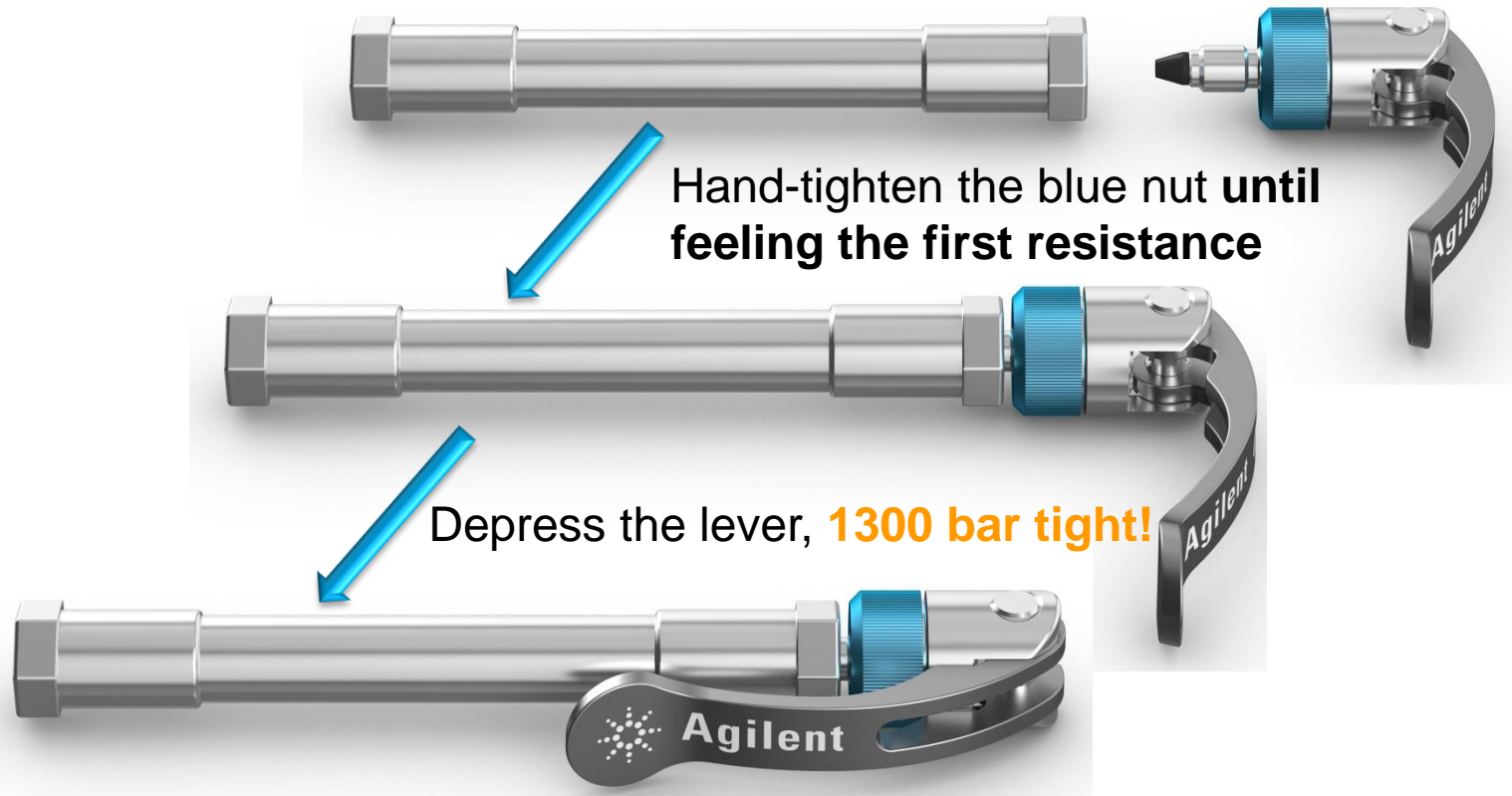
Stem length too short → dead volume



Properly fitted tubing, no dead volume

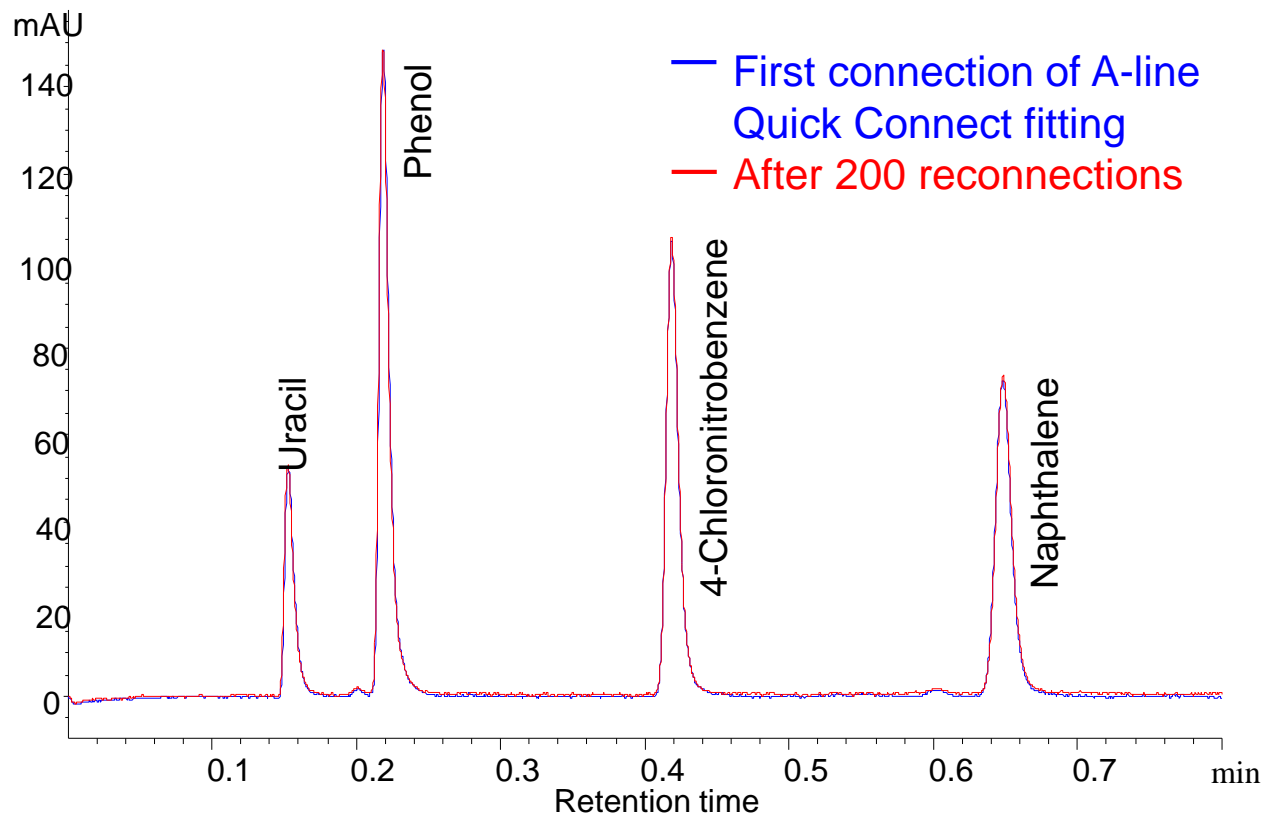


Installation of A-line Quick Connect Fitting



Robustness over 200 reconnections

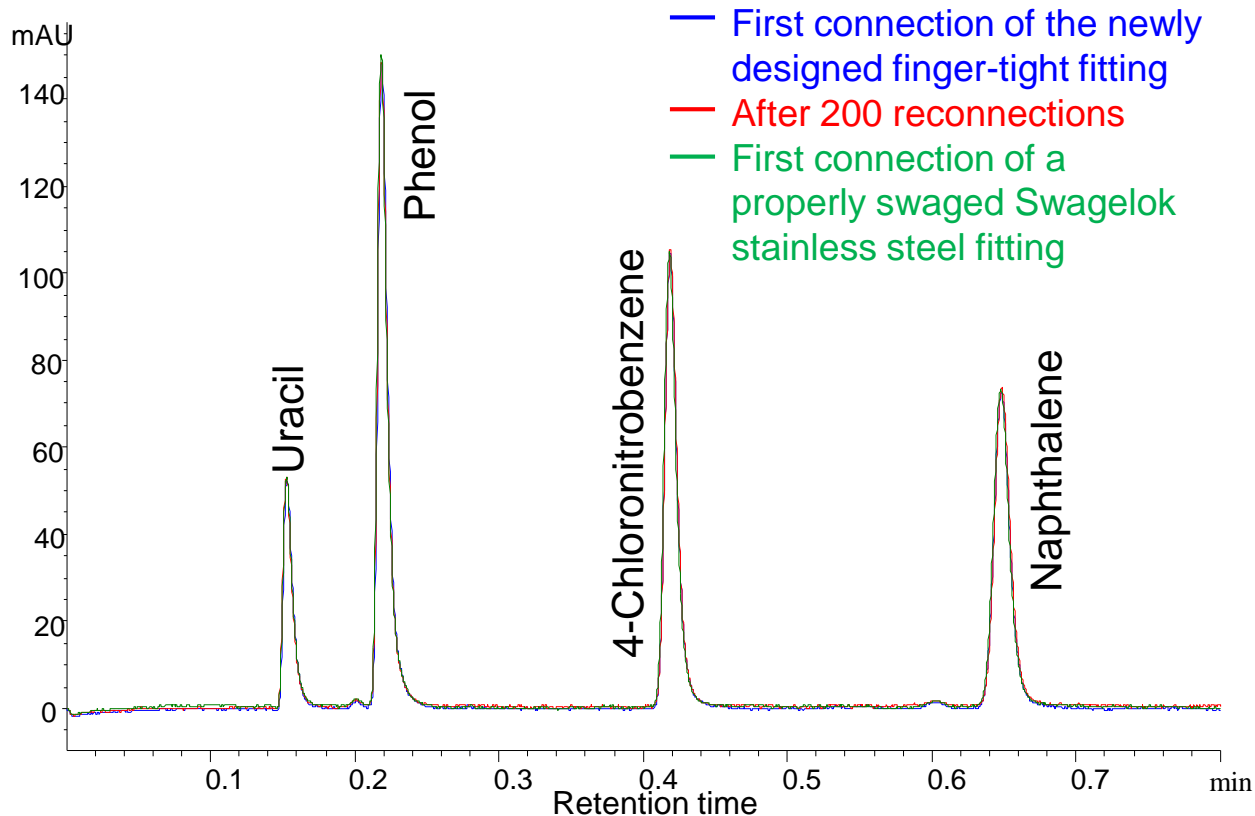
(choose either this slide or next slide)



Peak shape stayed stable over 200 reconnections

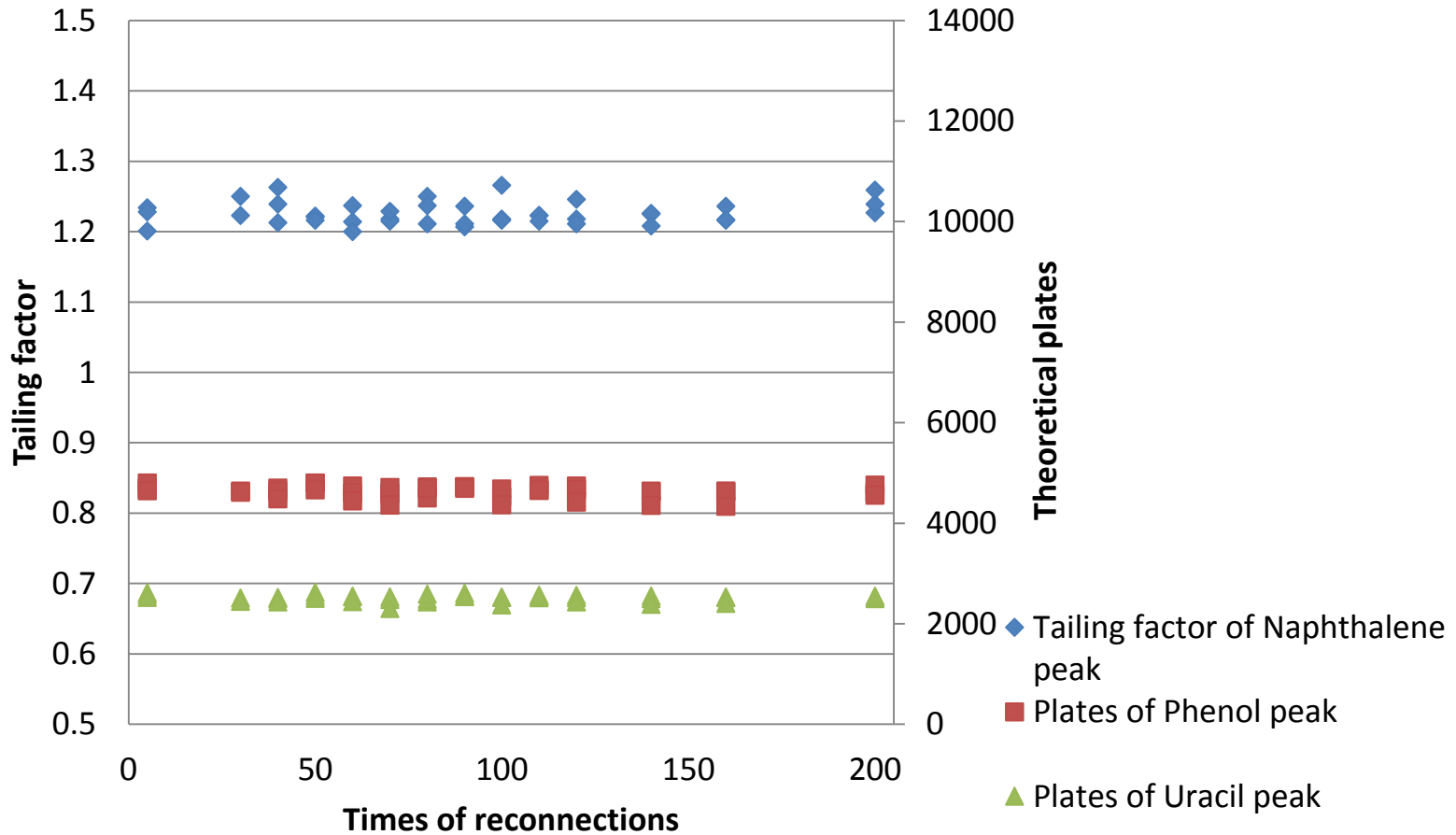
Robustness over 200 reconnections

(choose either this slide or last slide)



Peak shape stayed stable over 200 reconnections

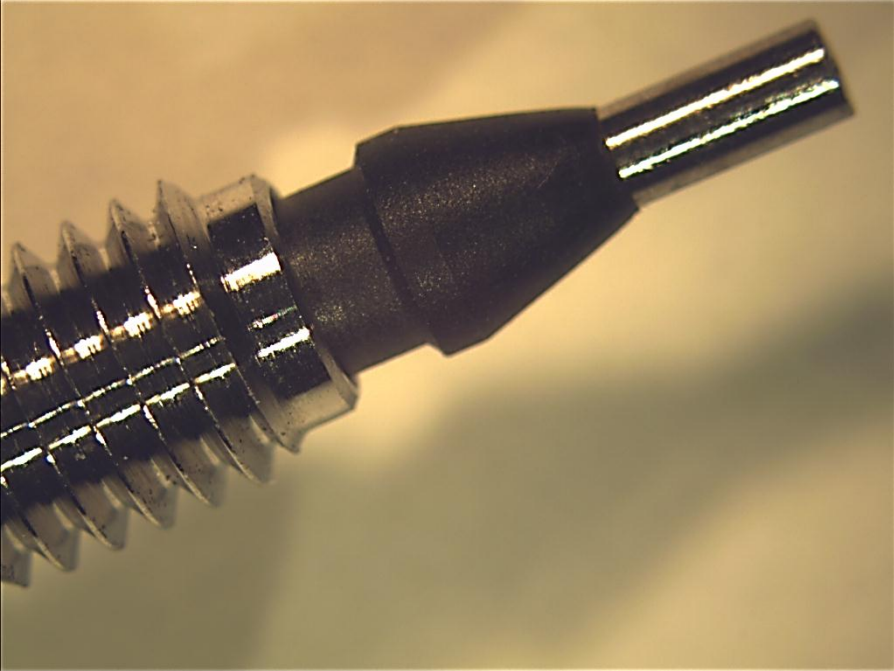
Robustness over 200 connections



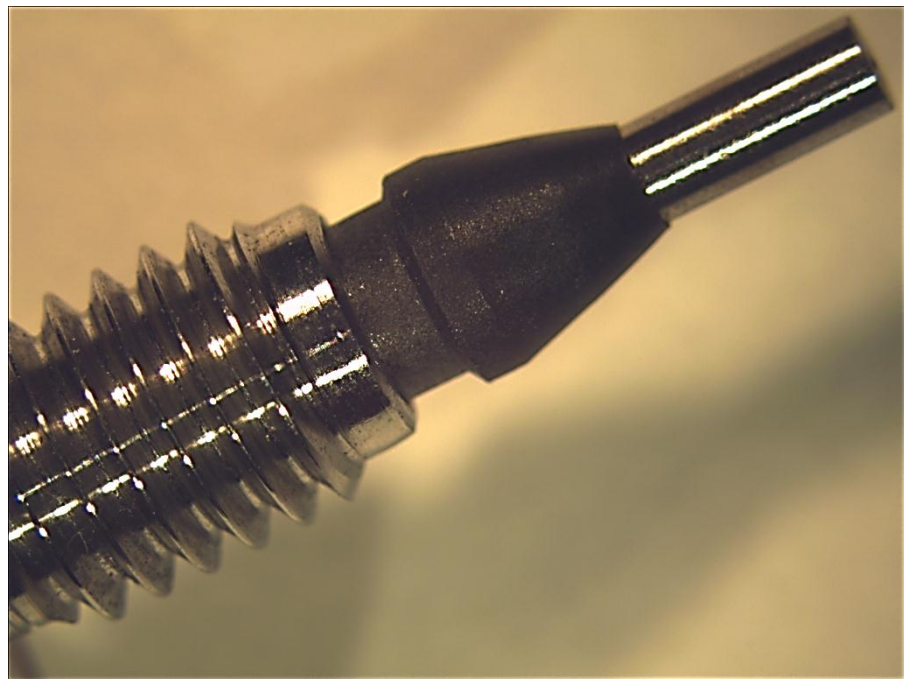
Tailing factor & plates No. stayed constant over 200 reconnections

Surface inspection before/after 200 reconnections

new

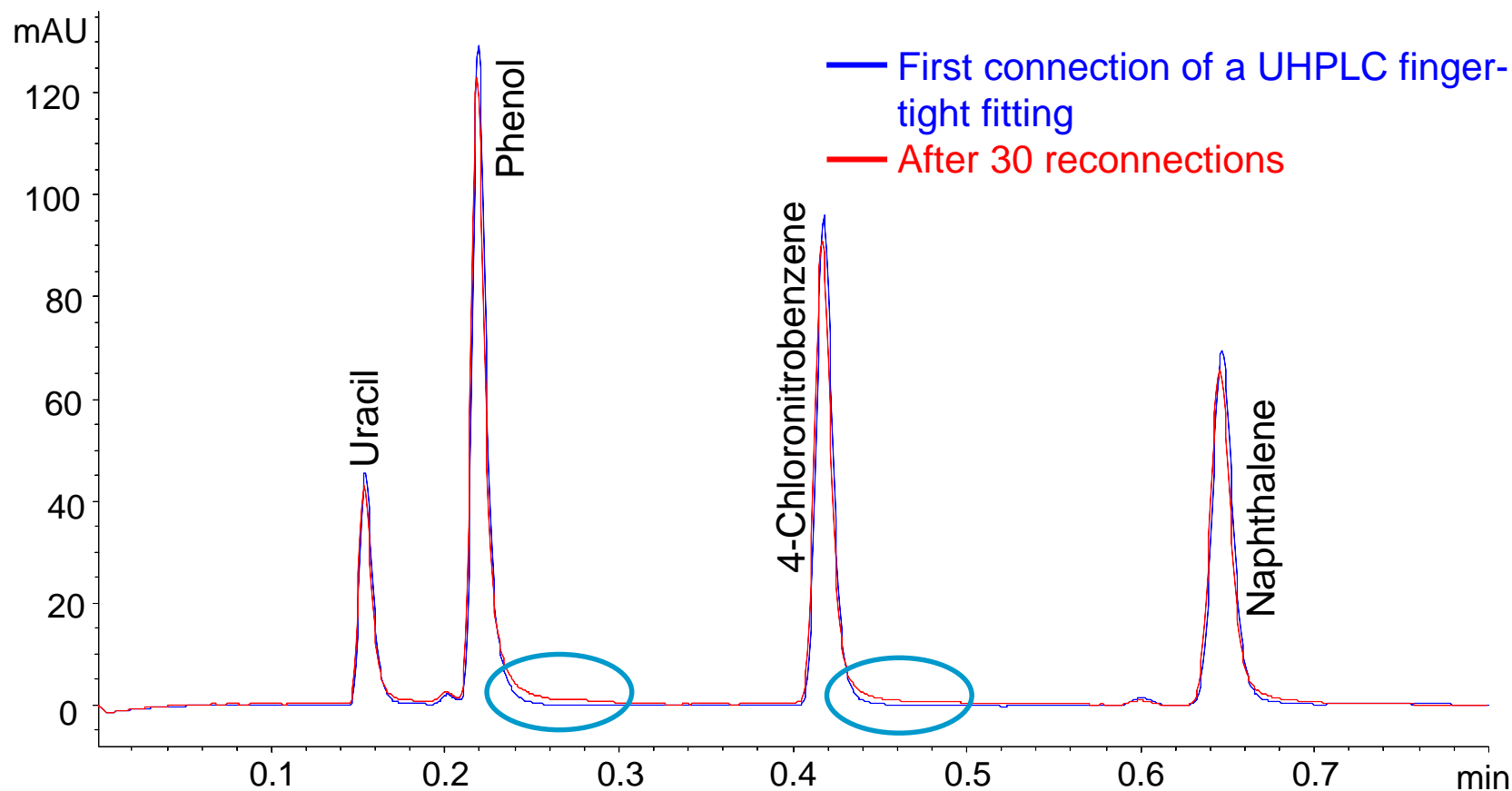


after 200 times of reconnection



no visible damage of PEEK ferrule

UHPLC finger-tight fitting from other Vendor



Deterioration of peak shape after only 30 reconnections